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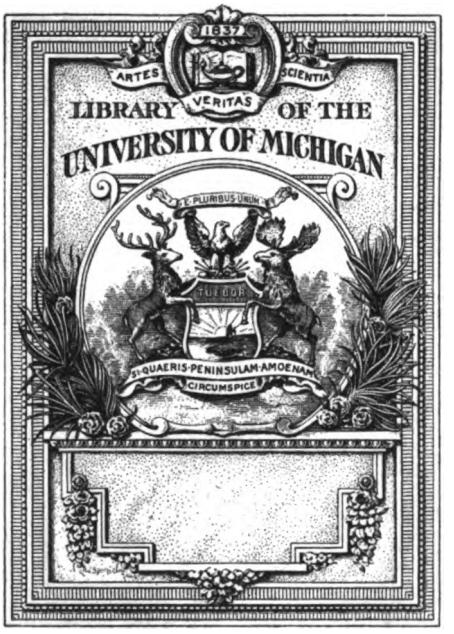

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ORIGINAL LECTURES.

CLINICAL LECTURES

DELIVERED IN UNIVERSITY COLLEGE HOSPITAL.

By CHRISTOPHER HEATH, F.R.C.S.,
Surgeon to the Hospital, and Teacher of Operative Surgery in University College.

ON A CASE OF GUNSHOT INJURY.

GENTLEMEN,—Cases of gunshot injury are not of very frequent occurrence in civil practice, and it happens that at this Hospital we have not met with one for some time; the last, I believe, having been the Lifeguard bandsman who was the victim of a Fenian assassin, and who was admitted under my care, like the patient who has recently been in Ward I. In civil practice, and especially in the country, you will in after-life be more likely to meet with injuries resulting from charges of small shot than bullets, except, indeed, in cases of suicide like the present, or murderous attacks as in the former instance I have mentioned; but all gunshot injuries have many features in common, and cannot fail to be always of the greatest interest and importance.

The patient in the present instance was a man of thirty-five, who, nearly twelve hours before his admission to the hospital, fired—accidentally, he maintained—a small pistol immediately below the ensiform cartilage. The inhabitants of the hotel where the man was staying do not appear to have been alarmed by the report, which, from the size of the pistol, was not a loud one, and the patient lay quietly but in great pain on his bed all night, and on the following morning paid his bill and came here in a cab. I saw him soon after his admission, when I found a small circular wound of a dark colour close to the left side of the ensiform cartilage, the skin around being burnt by the explosion, thus showing how close the barrel had been held; but the edges of the wound were neither inverted nor everted. With the old-fashioned round bullet, which travelled at a low rate of velocity, the inversion of the aperture of entry and eversion of the aperture of exit were well marked, but the modern bullet goes with so much greater force that it cuts its way clean, so to speak; and, particularly in the case of wounds caused by small pistol-bullets, it is impossible to tell which is the entrance and which the point of exit of the ball. This was particularly well seen in the bandsman shot by the Fenians, but in the case before us the question did not arise, as there was but one wound, and the bullet could be felt beneath the skin of the left side of the chest. The man told us he had vomited blood once in the night, and the direction of the wound was so directly through the stomach that there could be little doubt that it was wounded, whilst the dulness on percussion around the wound indicated the presence of clotted blood. The patient was not collapsed, however, having probably recovered during the night from the first prostration of the injury. His pulse was 100 and weak, and his temperature 98°.

Now, a ruptured stomach is of all accidents the most fatal, though occasional recoveries have occurred, as in the celebrated Alexis St. Martin, whose acquaintance you no doubt made when studying stomach digestion. Perforation of the stomach by an ulcer is a not unfrequent cause of death, and the symptoms are generally extremely well marked, consisting of sudden agonising pain followed by intense peritonitis, rapid distension of the abdomen, and death in a few hours. Yet here was a patient (who almost certainly had two holes in his stomach) with a flaccid abdomen, and very few symptoms twelve hours after the injury. How was this to be explained? Entirely, I believe, by the fact, which we at once ascertained from him, that his stomach was completely empty at the time the injury was inflicted, and had been so for some hours before. The patient was, in fact, a lunatic, who, being unhappy at home, had determined to go to America, had travelled to Liverpool, and then changed his mind and returned to London, and had been without food for at least thirty hours before his admission. The indications then clearly were—to keep his stomach empty, and to put nothing in his mouth but ice to relieve the thirst, to nourish by enemata, to give opium to relieve pain and stay the peristalsis of the bowels, and to poultice the abdomen to keep down peritonitis.

All this was assiduously attended to by the house-surgeon, Mr. Skerritt, and the patient was so comfortable during the whole of the day of his admission and the following day that we almost began to hope that in some miraculous way the viscera had escaped injury. As the bullet lay opposite the tenth rib it was just possible it might have passed through the diaphragm and traversed the lower part of the thorax; but there was no evidence of lung injury. By the second day after his admission, however, the abdomen had become somewhat distended and painful; there was some tympanites, and there was dulness in the left flank as high as the ninth rib. The pulse was 116, and the temperature 99·9°. He had some diarrhœa on this day, with dark but not black stools. On the fourth day the abdomen was less tender, but was tympanitic throughout, even in the flanks. The temperature was only 99·6°, and the pulse 104, the respirations being 18. On the following day, though the pulse remained 104, the temperature went up to 100°, and the respirations to 22, and the patient became slightly jaundiced. On the sixth day he vomited twice several ounces of a dark fluid with intensely acid reaction and putrid odour. He was much depressed, and was delirious in the night. The abdomen was very tender, his temperature being 99·8°, the pulse 120, and the respirations 38. On the evening of the seventh day after admission he died, having survived the injury exactly one week.

As far as I can ascertain, this is the longest survival after a wound of the stomach eventually fatal which is recorded; and it is the more remarkable when we come to the post-mortem examination and see the amount of mischief it disclosed. The bullet had, as you will see in the preparations before you, perforated the front of the stomach about three inches from the cardiac end, and midway between the upper and lower borders, and had passed out again in the great curvature immediately below the œsophagus. It had then perforated the left lobe of the liver, giving rise to a large stellate laceration, and had grooved the lower border of the spleen before reaching the ribs, between the tenth and eleventh of which it lay, having fractured the tenth rib in its course. The diaphragm was bruised but not perforated, but a quantity of bloody fluid was in the left pleura. The intestines were glued together with recent lymph, and large patches of lymph covered both aspects of the stomach and lay about the liver and spleen.

Penetrating gunshot wounds of the abdomen are always very fatal; thus, Professor Longmore gives the mortality of such cases in the English army during the Crimean war as 92 per cent., and in the French army during the same war as 91 per cent. In the American war, when the number of cases was three and a half times as great, the mortality was still 74 per cent. of the whole number of cases. A wound of the stomach alone has been recovered from as already mentioned, and the records of gastrotomy for the removal of foreign bodies give very favourable results; but a double wound, such as is produced by a bullet, must be almost always fatal from extravasation of the contents of the viscus. Fortunately, as already explained, our patient had a stomach empty of food at the time of the injury, and we took care to leave it so; but some blood was undoubtedly poured into the stomach as well as into the peritoneum at the time of the accident, and this blood served to excite the secretion of the gastric juice, as shown by the acid vomit on the sixth day. No doubt also some of the gastric secretion escaped from the back of the stomach into the peritoneum, and, together with the blood from the wounded liver and spleen, excited the fatal peritonitis. This, of course, it was impossible to prevent, though we had hoped that the small hole in the stomach might be closed by lymph and by adhesion to some neighbouring part. The wound of the liver and spleen gave rise to the hæmorrhage which was the cause of the dulness in the left flank until the tympanites became general, when air probably found its way into the peritoneum, as shown by an escape of gas on opening the abdominal cavity at the post-mortem. A wound of such vascular organs as the liver and spleen is too often immediately fatal from internal hæmorrhage, but it is well for you to remember that the bleeding may be very slow, particularly when the injury is the result of a rupture from external violence, such as the passage of a cart-wheel over the body. Not long ago a house-surgeon at a London hospital got into trouble by sending away to the police-station a drunken man who had been knocked down in the street and had apparently sustained no serious injury, but who died shortly afterwards at the police-station from a ruptured liver, which had slowly bled into the peritoneum. No doubt in our patient hæmorrhage went on slowly from the wounded liver

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and spleen, and by its collection in the left flank gave rise to the dulness which was noticed.

From the direction the bullet had taken, it was by no means certain that the lung had not been wounded; and when the patient began to get some congestion of the base of the left lung, as he did about the fifth day, I began to think this possible, although no direct symptoms of such an event had shown themselves. You must not, however, expect in every case of lung-wound to get violent hæmoptysis, or, indeed, any colour in the sputa at first. Of course, if any large vessel in the lung is wounded by a bullet or knife, the hæmorrhage is severe, but when the margin of the lung is wounded it will be a day or two before blood shows in the sputa, and then it will be fluid like prune-juice, rather than the frothy bright-red fluid you are familiar with in cases of ordinary hæmoptysis. The bullet had grazed the diaphragm, and its upper surface showed bruise-marks, the pleura being partially inflamed, but the lung itself had escaped injury. Then, again, it was quite within the bounds of possibility that the splenic flexure of the colon should have been perforated, but the patient had a motion within twenty-four hours of his admission, which showed no traces of blood, so we concluded that the bowel had escaped; and as his urine was clear, there was no idea of wound of the kidney, which, indeed, did not appear probable from the direction of the bullet.

In the treatment of this case there was no room for operative interference, for the ball was clearly doing no harm where it was, and no good object would have been served by extracting it. We carefully abstained from all probing of the wound—an operation more common in novels than in actual practice,—and contented ourselves with giving opium. Being anxious to get the effects of opium rapidly, I ventured to give half a drachm of the liquor morphiæ in a drachm and a half of water by the mouth once, believing that two teaspoonfuls of fluid could do no harm to the stomach; but after that the opium was administered by the rectum, together with enemata of beef-tea, brandy, and egg. You can nourish a patient very fairly for some days in this way with care, but it is well to remember that after a time there is likely to be some little accumulation of the unabsorbed portions of the enemata, which are apt to decompose and irritate the bowel unless they are washed out with warm water, as was done in this case on one occasion. The abdomen was assiduously poulticed with hot linseed poultices, on which laudanum was poured: and I believe no plan of treatment is more useful in averting threatened peritonitis, from whatever cause. Certainly after any abdominal wound, such as in hernia or ovariotomy, I have seen the best results follow this plan of treatment.

It is possible, however, that in a case of wound of the stomach operative interference might be advisable. A charge of shot might, as in the case of Alexis St. Martin, tear open the abdominal wall and stomach without causing immediate death, and injuries of a similar character are sometimes produced by the horn of an infuriated bull. In such a case I should stitch the edges of the opening in the stomach to the abdominal wall, taking care to bring the two peritoneal surfaces in apposition, for, with an irregular and ragged opening, it would be hopeless to attempt to close the wound in the stomach with sutures. The experience of making a gastric fistula, as in the operation of gastrotomy, is not very satisfactory, it is true, for the stomach is apt to break away from its attachments; and the operations for the removal of foreign bodies, in which the opening in the stomach is small and clean cut, and is at once closed, give much better results. But though the latter proceeding might well be adopted in the case of a stab, it would be unsuitable in the case of a more severe injury.

Let me give you a word of caution respecting the after-treatment of any case of abdominal injury—wound or otherwise—in which the patient fortunately becomes convalescent. It is, to be very careful how you allow a patient with damaged intestine to resume his ordinary diet or to take any purgative medicine. You will find in all standard surgical works how fatal the old practice of administering purgatives after an operation for strangulated hernia used to be; and the safe rule is to leave the bowels alone, even if they do not act for many days after the operation. The same rule applies to cases of injury from other causes: the bowel requires rest and time in order to repair the mischief done to it, and if you allow the patient to take indigestible food, or still more a purgative, you probably undo this repair, and lead to a fatal result. A case I saw some years ago in another hospital deeply impressed this fact upon me. A rider had fallen with his horse, which rolled on him. He had all the symptoms of intestinal injury, but he recovered, and became convalescent, when one day he complained that his bowels had not acted, and was ordered a purgative draught. That dose killed him in twenty-four hours, and then it was found that the duodenum had been torn by the accident, but had been to a great extent repaired, when the unlucky purge broke down the adhesions and set up fatal peritonitis.

In cases of gunshot injuries, as in all cases likely to be the subject of legal investigation, let me recommend you to be careful to note the immediate surroundings of the case at the time you are called in. In the case of a patient already in a hospital, the inquiry is necessarily narrowed to the direction of the wound and the state of the clothes, but it would be of much wider range in a private house. It was obvious that our patient had carefully unbuttoned his flannel vest, and had placed the barrel close to the body, so that the vest had only suffered by a burn at one point, instead of being perforated by the bullet, as it would have been had the discharge been really accidental. The patient stoutly denied suicidal intentions, and doubtless he was not responsible for his actions. You must be prepared, however, to find the most desperate attempts at suicide, if not immediately successful, followed by a sudden revulsion of feeling, which makes the sufferer invent the most transparent falsehoods to account accidentally for what has evidently been the result of much premeditation.

ORIGINAL COMMUNICATIONS.

ON THE MALARIAL SPLENIC CACHEXIA OF TROPICAL CLIMATES.

By J. FAYRER, C.S.I., M.D., F.R.C.P.,
Honorary Physician to the Queen; India Medical Board.

A NOT unfrequent result of protracted exposure to the influences of malarious climates, like those of lower Bengal, Assam, Cachar, the Terai, and, indeed, many other parts of India and the tropics, may be observed in the enfeebled anæmic condition of the general health, which is commonly attributed by the sufferers themselves to "spleen," and technically is described as splenic cachexia.

The actual part taken by that important vascular gland—the spleen—in elaborating and perfecting the blood for the purposes of nutrition, is not yet fully known in all its bearings, though the researches of Gray, Bennett, Kölliker, and many other physiologists have thrown much light on the subject, and seem to show that, although it may not be absolutely essential to the continuance of adult or later life, yet is physiologically of the greatest importance in the economy, at all ages, with reference both to the quantity and quality of the blood. What physiological experiment and research have indicated, pathology appears to confirm, as may be observed in the blood-dyscrasia and impaired nutrition invariably present in those suffering from malarious affections of the spleen. It is probable that in such cases the blood is the first in order affected, whilst in many that there is hepatic complication, and that the splenic change is a consequent result; but there is every reason to believe that when the spleen has become implicated it is incapable not only of duly performing that part in the elaboration of the blood which is now more than ever essential to perfect sanguification, but that in its altered condition it is an abiding pathological source of blood-dyscrasia—a state which, if not removed, may result at last in the gravest evils. This certainly is the case in the elephantoid growths, for, whilst they remain, the subjects of them are ever liable to recurrences of paroxysmal fever and exacerbations of the growth of the tumour. Removal of the morbid tissue (which may often be effected by surgical operation) is followed by removal of the constitutional disorder. The tendency of the poisoned blood and of the disordered spleen in malarious poisoning to react prejudicially on each other is, in like manner, always such as mutually to increase.

It is very desirable that further chemical and microscopical examination should be made, not only of the blood during life, but of the connective tissue, spleen pulp, corpuscles, and blood, when opportunity occurs, as it frequently does in India, after death.

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The determining cause of this form of cachexia is malaria—that is to say, a something that operates under certain conditions of heat and moisture, combined with unknown telluric or atmospheric influences, in the presence generally of organic (vegetable) matter in a state of decay. Whether this be a subtle gaseous emanation, or whether it pertains rather to the realm of the imponderables, I cannot say: it is best known by its results; and this poisoning of the blood and consequent or concomitant affection of the spleen and accompanying cachexia is one of the most frequent modes in which it expresses its action on the human frame.

Malarious enlargement of the spleen, and the attendant or consequent cachexia, are frequently, but by no means constantly, the results of repeated recurrences of malarious periodic or remittent fever in those long exposed to such influences; and when the patient has previously suffered from ague it is to be expected that, whilst the spleen remains affected, so long will the person be liable to recurrence of paroxysms of fever. These, however, are not by any means the most serious or obstinate cases of splenic cachexia; on the contrary, they are often more tractable and amenable to remedial measures than others apparently of a less formidable though more chronic nature, which not unfrequently present themselves in a marked form where no fever has previously occurred.

Under proper treatment, or by change of climate, the spleen in any case frequently rapidly decreases in size, the paroxysms of fever become less frequent and severe, and the cachexia and leukæmia gradually disappear. I have seen Europeans, and natives too, in India, who had gradually failed in health, become feeble, anæmic, with pallid lips and conjunctivæ, pearly sclerotics, œdematous limbs, albuminuria, and other symptoms of disordered spleen, with all the indications of malarious poisoning prominently marked, who had never had a single attack of fever or neuralgia, and who were unconscious that they were suffering from malarious poisoning. This slow and insidious undermining of the health is not uncommon in many parts of India, and it contributes its share to the numbers who are yearly sent away broken down in health by the effects of climate.

In a large proportion of such cases the liver is involved, and it is sometimes difficult to say what share in the disease should be assigned to each. The vascular connexion through the portal circulation, and the interdependency of these two important organs, is so intimate that it is hardly possible one should suffer without the other, from causes which are naturally so prejudicial to both; but as in some cases the hepatic complication is much less marked than the splenic, I confine my remarks at present to the latter form of the disease. Malarious enlargement of the spleen is seen in all stages, from the slight and transient engorgement that accompanies or follows an attack of intermittent fever, to the permanent hypertrophy or congestion that results from many such attacks. One form of it was formerly—when ague was frequent—not very uncommon in some parts of England, and was known as "ague cake." In this the spleen was enlarged and indurated, its lower margin in some cases hard and well defined, extending even as low as the iliac region. It may, in fact, assume various conditions and degrees of density or size, in some being hard and painful, clearly distinguishable by palpation and percussion below the ribs in the left hypochondrium; in others it is soft and almost diffluent,—perhaps with little pain,—like a sac of fluid, forming a tumour more or less extensive in that site, and one which is prone to rupture from external violence (or as some say spontaneously), and is thus not a very unfrequent cause of sudden death among the natives of Bengal from slight injuries or accidents. On the other hand, in some cases the cachectic condition is well marked, though there may be little or no physical signs of increase in bulk of the spleen, though no doubt, could it be more completely examined, such would be found; and it must be admitted that the extent of cachexia is not always a measure of the hypertrophy of the spleen. I do not use the term splenitis, as it would be—here, at least,—a misnomer. The spleen, however much it may be pathologically changed, is not generally in the state which is called "inflamed." The capsule, indeed, may be, or have been, the seat of inflammation, and other morbid changes may occur; but as I am not discussing diseases of the spleen generally, I omit further mention of them—for the present, at all events.

The pathological changes that take place in the spleen, whether of enlargement, contraction, induration, softening, or degeneration—albuminoid, fatty, or otherwise—as a result of malarious poisoning, require further investigation. The microscope might reveal changes of importance throughout its entire structure, of the connective tissue entering into the composition of its capsule, and trabeculæ, which might be, in some cases, hypertrophied and indurated. The intercellular spaces altered, perhaps diminished or contracted—especially where inflammatory action or irritation have previously occurred—many changes may result from the presence of inflammatory products; or, on the other hand, where the organ has been distended and softened, opposite conditions would probably be found.

Important changes no doubt take place in the Malpighian corpuscles, and parenchyma or pulp, whilst the arteries and veins (especially the latter) and the venous cavities are probably dilated. The blood itself is rendered unfitted for the purposes of perfect nutrition, its most important defects perhaps being those of the relative quantity and quality of the corpuscles, and its increased proneness to deposit fibrinous coagula, as seen, first, in the leukæmic and anæmic state of the patient; and secondly, in the great tendency in many cases to death (gangrene), or the extreme of degeneration in the imperfectly nourished tissues, resulting from embolism in either the pulmonary or systemic circulation.

In chronic cases other degenerative changes of the adipose or albuminoid character might be looked for, and, where embolism of the splenic vessels has occurred, local deaths or disintegration of portions of its substance resulting in puriform collections round the starved portions of tissue. But an abscess as a result of inflammation is, I imagine, comparatively rare.

As I have already said, a large proportion of the cases one meets with in India is of those who, either after repeated recurrences of fever, neuralgia, or other marked expression of the influence of malaria, gradually lose their health, and pass into a state of cachexia, with enlarged spleen. But there are many cases where the person has resided for a long time in a malarious district, and undergone much exposure, in which the cachexia insidiously comes on without any marked premonitory expression of malarious poisoning. There is gradual loss of health, the appetite fails, the spirits are depressed, energy is diminished or lost; the skin becomes sallow or pallid; the mucous membranes, the conjunctivæ, and the gums and lips become blanched and bloodless; the tongue white and furred; the bowels irregular, often with diarrhœa; the skin is harsh; the palms of the hands and feet are often hot; and the limbs and body ache, and are wearied with little or no exertion. There are occasional feverish or neuralgic attacks. There is indisposition and incapacity for work or exertion of any kind, and withal there is hurried respiration, and the patient is not free from danger of embolism from the tendency to sudden separation of fibrine from the circulating blood; pain in the hypochondriac regions, and very probably some œdema of the lower extremities or the face and eyelids now begins to appear. Occasionally there is general anasarca, or even ascites, and in some cases hæmorrhage from the gastro-intestinal mucous membranes. Sometimes there is albuminuria. The blood is watery, spansemic, and no longer equal to the requirements of nutrition of the tissues, as may be seen not only in the enfeebled body but the enervated mental powers, and systolic aortic murmurs point to the altered condition of the blood, or to pressure on the heart by upward pressure of the hypertrophied spleen. It is remarkable, too, that persons so affected, though they have not previously had an attack of ague, are surprised by having a severe one on going to sea or changing the climate.

The category of symptoms I have just described represent what may be regarded as remediable conditions of splenic cachexia. In those who are not removed from the evil influences, matters soon assume a more serious aspect; and it is noteworthy that in children and young people the severe and dangerous symptoms seem to supervene more rapidly than in those more advanced in life,—as seen by the greater tendency in children to cancrum oris, noma, sloughing of other parts, or necrosis of the bones, hæmorrhages from the stomach or bowels, and serous effusions into the cavities, and general anasarca,—evidently because in early life the well-being of the individual is more dependent on the due action of the spleen, in elaborating the blood for the purposes of nutrition and growth, than in later life, and that, consequently, interference with its functions at this period is of more serious import to the young than to those of more mature age. As a general rule, if the mischief has not proceeded beyond

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the stages already described, recovery is pretty certain if the individual be removed from the place in which he has suffered to a more healthy and invigorating climate, and if he be subjected otherwise to proper treatment. The importance of change of climate it would be difficult to over-estimate, not only on account of the present evils of his condition, but because of the prospective danger to one affected, should he or she become the subject of other disease or suffer from wound or accident. An attack of dysentery to one in this state would be extremely dangerous; parturition or a wound would be equally so; and surgical operations, excepting such as may be urgently needed to save life, so much so, that they should be altogether declined until the health be improved.

I have elsewhere called attention to the dangers that are liable to occur after surgical operations in the anæmic inhabitants of malarious climates, pointing out that although an individual so situated may not be regarded as the special subject of marked malarious poisoning, yet all may be considered to be more or less affected; and that it is my impression that an imperfect condition of the blood has much to do with the marked tendency to suffer after surgical operations, wounds, accidents, and during disease from paroxysmal fever, and even from embolism or cardiac coagulations.

The mere passing of a catheter in a comparatively healthy man has been followed by paroxysms of fever and deposits of fibrine in the pulmonary artery, which have proved rapidly fatal. The slightest wounds have in those more deeply affected been followed either by gangrene or by hæmorrhage —the abstraction of a tooth by necrosis of the jaw, a pimple on the face by gangrene of the cheek, or the sting of a wasp by gangrene of a limb,—all proving the low vitality and tendency to disintegration of the tissues thus imperfectly nourished. A visit to any Calcutta hospital would frequently offer ample evidence of the effects of splenic cachexia in the gangrenous stumps resulting from arterial embolism, the sad cases of cancrum oris, sloughing of other parts, and the necrosed maxilla, or in the severe attacks of urethral fever and the pulmonary embolism that have followed wounds and surgical operations, or have occurred in cases of disease.

But it is not so much of these aggravated forms in which the evil consequences of malarious splenic cachexia present themselves that I now wish to speak, as of those of a less marked and more common form in which it presents itself,—not only in those who continue to remain in the localities where it has originated, but also in others who have returned to Europe, —and especially with a view of suggesting how it is to be dealt with hygienically and therapeutically.

The most important element in the treatment is removal from the evil influences of the place in which it has commenced. The more complete the change the better for the patient; and, as a general rule, it is desirable that it should be complete, and to another and more bracing climate—extra-tropical and away from malarious influences. In cases where the disease has not advanced very far, a sea voyage and absence for a short period—three months or thereabouts—might suffice; but in more advanced cases change to Europe is necessary. As to drugs, quinine and iron are especially indicated, and a combination of the alkaloid with sulphate of iron is probably the best. But any of the preparations of iron, such as the perchloride or the citrate of quinine and iron, will suffice, if preferred. Where there is tenderness as well as induration of the swollen spleen, and also where there is hepatic pain and congestion, and, indeed, even when this latter complication does not exist, hot fomentations, sinapisms, or tincture of iodine may be applied. Some saline aperient, sufficient to produce a tolerably free drain from the portal system, is often desirable. A combination of either the sulphate of magnesia or soda, with or without iron and quinine, in some bitter infusion, taken in sufficient quantities early in the morning to induce one or two fluid motions, is best. It is needless to say that all depleting or exhaustive remedies, such as blood-letting, excessive purgation, or mercury, are entirely inadmissible, and nothing is more certain than that in this state of splenic cachexia the physiological action of mercury is not only readily developed, but is most prejudicial. Under its influence—and this is not unfrequently seen in the natives of India, being sometimes administered by native physicians or others—all the worst consequences, such as sloughing of soft tissues or necrosis of bone, may ensue.

In the case of Europeans who seek recovery by a return to Europe it is very desirable that the sojourn should be prolonged for a considerable period even after complete restoration to health has apparently occurred; and when the splenic cachexia has been at all pronounced, it is seldom desirable that they should return in a less period than two or even three years, if at all. There was much practical wisdom in the old regulation of the East India Company, that allowed an absence of three years to those who came on furlough after long residence in the malarious climate of India.

The protracted use of iron in some form, and occasionally of quinine or arsenic, especially when there is return of fever, with a residence in a bracing atmosphere, and plain and nutritious food and wine, are the measures by which restoration to health may be expected. It is well, no doubt, that part of the time should be spent at the seaside or at some of the springs or wells in Europe, those combining the chalybeate and aperient properties probably being the best. Much benefit may be derived by short sojourns of six weeks or so, not only from the effects of the mineral waters, but from the change of air, rest, and the physiologically normal mode of life there prescribed.

Dr. J. Macpherson, of the Bengal Medical Service, says, in his most valuable work on "The Baths and Wells of Europe" —"Chronic enlargement of the spleen usually disappears when the intermittent fever with which it is associated has been cured. The object is more to improve the general health. The water selected must depend on the strength of the patient. For such as will bear pretty active treatment, Carlsbad, Marienbad, Tarasp; for less robust, Kissengen, Homburg; or iron waters, Franzenbad, Elster, Pyrmont, Spa. In France, some of the arsenical waters are recommended, as Cransac, La Bourboule, also Orezza and Bourbonne. Mud-baths, local douchings, strong brines, may all find their appropriate employment."

Local applications are of little value, but for those who put faith in them the application of iodine in the form of tincture, or as ointment over the spleen, may be resorted to. The best hope of restoration to health, however, lies in such measures as tend to improve the general health, to give tone and vigour to the system, and improve the blood, and these are to be sought for more in change of climate than in physic.

In those more aggravated states of the disease seen in India, where the spleen is not only enlarged but tender, and the cachexia well developed, where gangrene of any part —such as cancrum oris or phagedænic sloughing—supervene, the free use of opium in the solid form, and such local applications as may tend to destroy the dead or dying tissues without great irritation of the subjacent parts, are indicated. Chlorate of potash, nitric acid, bark, quinine, arsenic, iron, are the remedies, combined with nutrients of the most assimilable and sustaining character. Happily these aggravated cases are seldom seen, excepting in those (generally children) who are long and unavoidably exposed under the most unfavourable and depressing circumstances to the evil influences of malaria in its most intense form. It is almost unnecessary to add that surgical operations, excepting such as are immediately necessary to save life, should be avoided in this state— the tendency to hæmorrhage, gangrene, or embolism being very great.

Hæmorrhages, whether internal or external, during the progress of the disease, require the administration and it may be the application of styptics, of which, perhaps, the ferruginous are the most efficacious. Ascites may require relief by paracentesis.

I have not attempted to describe all the morbid conditions to which the spleen is liable, and therefore say nothing on the subject of those morbid states in which extirpation of it has been deemed by some authorities expedient. In a few cases the whole or portions of the organ have been removed, and recovery has followed; and the entire organ has more than once been extirpated in the lower animals, and they have continued to live. But the importance of the spleen in the process of sanguification seems so great, and the evil results to the blood from any impairment of its functions so certain, that I doubt much if removal of the entire gland will ever take a place among the successful major operations of surgery.

London.

THE Royal Infirmary Convalescent Hospital, Loch Head, Aberdeen, is to be opened on January 1.

THE *Times* of India of the 8th ult. states that the health of the Punjaub continues to improve, the death-rate having considerably decreased of late.

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OUTLINE OF OBSERVATIONS AND INVESTIGATIONS ON YELLOW FEVER.

By JOSEPH JONES, M.D.,
Professor of Chemistry and Clinical Medicine, Medical Department, University of Louisiana;
Visiting Physician of Charity Hospital, New Orleans.

No. II.

Period of Incubation of Yellow Fever.

The period between the exposure to the "infected atmosphere" and the manifestation of yellow fever is not of fixed duration, but varies with different individuals; some systems resist for long periods the morbific agents, while, on the other hand, healthy individuals coming into an infected city have been attacked within thirty-six hours. A few hours' exposure to the atmosphere of the city in which yellow fever is endemic may be sufficient for the introduction of the poison into the system. This statement is sustained by the following observations:—

Case 1.—A stout, healthy young gentleman, of florid complexion, sanguine temperament, and active habits, resided in a healthy locality in Liberty County, Georgia, thirty miles from Savannah. In the month of September, 1854, whilst the yellow fever was prevailing, he drove in his carriage into the city, and visited the house in which one of his near relatives had died a few days before with well-marked yellow fever accompanied with black vomit. Entering the city at midday, he remained about four hours (just long enough to secure some business papers relating to the estate of his deceased relative), and returned immediately into the country. In the course of one week this stout young man, in the full vigour of health, was seized with yellow fever, and died with black vomit after an illness of four days. After death, the body presented a deep yellow colour, and the dependant portions were mottled from the unequal and excessive capillary congestion. The exposure of a few hours to the atmosphere of the city was in this case sufficient for the introduction of the poison. On the other hand, many individuals living in the infected cities, and holding daily intercourse with the sick, do not manifest symptoms of the disease until near the close of the epidemic; whilst others, equally exposed, pass through many epidemics without even manifesting a sufficient amount of febrile derangement to require medical treatment. This latter remark applies not only to the natives of southern cities, but also to residents of northern latitudes, who remove to those localities where yellow fever prevails after they have attained their full growth. The period of incubation appears to vary in different epidemics, and among different individuals during the same epidemic, and may extend from twenty-four hours to weeks and even months. In this respect yellow fever is allied to those diseases which are supposed to arise from malarial effluvia, and differs from those well-defined contagious diseases in which the period of latency is well marked and of definite duration.

During the prosecution of my investigations in yellow ever, notwithstanding frequent contact with the sick and dead, and exposure to the exhalations from the bodies of yellow fever subjects and from the black vomits, excretions, and blood and organs subjected to chemical analysis, I have never experienced well-marked symptoms of this disease; although at times, when most exposed to such exhalations, I have suffered with slight fever, loss of appetite, and nausea (these symptoms, however, were not of sufficient severity to cause the intermission of my labours); and such observations have led me to the belief that under certain circumstances the poison of yellow fever may pass through the system, producing slight derangement, without inducing the disease itself.

During the prosecution of similar investigations in small-pox, I have in like manner felt the depressing influence of the poison without manifesting well-marked symptoms of this disease; and upon one occasion, after exposure to the small-pox poison in the crowded tents of a Confederate military small-pox hospital, and after performing a protracted post-mortem upon the body of a Confederate soldier who had died with confluent small-pox, I suffered with fever, intense pain in the back and head, and injection of the capillaries of the skin. These symptoms disappeared, however, at the end of three days. It was evident that the protective influence of the vaccine virus introduced into my arm twenty-five years before was sufficient to cause or allow the passage of the small-pox poison in large amount through the system, with only a partial and mild manifestation of some of the symptoms usual in those unprotected either by vaccination or by a previous attack of small-pox.

In the case of the yellow-fever poison, there was no known state of the system artificially produced, as in the case of the small-pox poison, which would account for the elimination of the poison; although that such an elimination must have taken place was manifest from the peculiar train of symptoms attending prolonged exposure to the exhalations of the sick and dead.

Communication of Yellow Fever through the Mother to the Fœtus in Utero.

It is possible for yellow fever to be communicated through the mother to the fœtus in utero. This proposition may be illustrated by the following observation:—

Case 2.—M. H. entered Charity Hospital October 1, 1871, with fever, intense pain in the head and back. On October 14 (third day of disease), patient presented all the symptoms of yellow fever—conjunctivæ jaundiced, eyes injected, capillaries of mouth and gums congested, capillary circulation sluggish, surface of extremities mottled; nausea and vomiting. Patient suffering with hæmorrhage from the uterus. On October 5 (fourth day of disease) the patient gave birth to a stillborn fœtus, apparently about four months old. The skin of the fœtus presented a slightly jaundiced hue, and upon dissection the liver presented the yellow hue characteristic of yellow fever. Under the microscope (one-fifth objective, Smith and Beck, London) the liver of the fœtus presented the usual appearance of this organ in yellow fever, with the great increase of oil globules. On October 6 the mother died, apparently from the effects of hæmorrhage from the uterus and stomach. The pathological lesions were those of yellow fever. The serum of the blood from the heart presented the usual golden colour, and contained bile; the coloured blood-corpuscles were altered in their outlines, some being smaller and others crenated. The muscular structures of the heart were of a yellow and brownish-yellow colour, softened, and loaded with oil globules. The liver presented the characteristic yellow colour of this disease, and was loaded with oil; the kidneys presented a yellow and yellowish-red colour, like that of the liver and heart; and the sections of these organs carefully examined under the microscope revealed the tubuli uriniferi filled with granular fibroid matter and epithelial cells and oil globules. The urine taken from the bladder after death contained albumen in large amount, and urea in comparatively small amount. Under the microscope the urine was found to be loaded with casts of the tubuli uriniferi filled with granular fibroid matter, and also with numerous excretory cells of the tubuli uriniferi. As is usual in yellow fever, there was an absence of crystalline bodies in the urine.

Case 3.—Louis, in his "Anatomical, Pathological, and Therapeutical Researches on the Yellow Fever of Gibraltar of 1828," records the observation that the uterus of a woman, the wife of a soldier of the 53rd Regiment, who died with well-marked yellow fever, contained a five or six months' fœtus, about whose neck were ecchymoses, and whose skin was of a uniform wine-lees colour. The amniotic fluid appeared to have been coloured by bile. In this respect, therefore, the poison of yellow fever resembles that of certain contagious diseases, as small-pox. Thus instances have been recorded in which the fœtus in utero has been attacked with small-pox in consequence of the mother having been exposed to the contagion without herself having the disease.

It was long held as a popular opinion that if persons were insusceptible to the small-pox, either from infection in consequence of repeated exposure, or from inoculation with variolous matter, they must have undergone the disease previously to their birth. Some medical men, on the contrary, have held that the want of susceptibility in such persons to the infection of the small-pox was owing to a peculiarity of constitution, which resisted the influence of that disease.

Cases(a) have been recorded which go to show that the fœtus in utero is liable to the small-pox from the influence of

(a) "Cases of Small-pox in the Fœtus," by William Forbes (*Edinburgh Medical and Surgical Journal*, vol. iii., 1807, p. 307). "Medical Commentaries," by Andrew Duncan, vol. iii., 1789, p. 318. "Cases of Small-pox occurring in the Fœtus," by James Land, M.D. (*Edinburgh Medical and Surgical Journal*, vol. iii., 1807, p. 155). Edward Jenner, *Medico-Chirurgical Transactions*, vol. i. (London, 1815), third edition, pp. 271-277. *Philosophical Transactions*, vol. xlvi., p. 239; xxviii., p. 165; xlv p. 283; lxx., p. 128; lxxi., p. 372.

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surrounding infection, although the mother was herself protected by a previous attack of the disease.

Dr. Edward Jenner entertained the opinion that the susceptibility to receive the variolous contagion always remains through life, but under various modifications or graduations, from the point where it passes silently and imperceptibly through the constitution (as is frequently the case with cow-pox), up to that where it appears in a confluent state with such violence as to destroy life.

It is only under particular circumstances that any proof of the presence of small-pox can be adduced in those cases in which it passes through the frame without producing eruptions or in any perceptible degree destroying the animal inunctions. Such proof, however, is clearly afforded by the obvious infection of the fœtus before birth, communicated through the mother, herself being already secure from any visible occurrence of the disorder.

From such facts it has been shown that the small-pox virus may affect the human frame even to the inmost recesses, although apparently secured from its effects, and yet give no evidence of its presence by exciting any perceptible disorder. It was also established by actual experiment that pregnant women were not fit subjects for inoculation, as the small-pox often caused miscarriage; and, what is remarkable, when the disease proved mild to the mother, it was sometimes severe and fatal to the child.

If, therefore, the poison of yellow fever is capable of affecting the fœtus in utero in an analogous manner to the poison of small-pox, we may arrive at the following conclusions, which if more extended investigations should clearly establish, will explain one mode in which the natives of those cities and localities (as New Orleans) where yellow fever prevails obtain an immunity from its attacks:—1st. The poison of yellow fever is capable of affecting the fœtus in utero. 2nd. It is possible that the yellow-fever poison is capable of affecting the fœtus in utero without inducing the disease in the mother who has had the disease at some period preceding pregnancy. 3rd. It is thus probable that a certain number of natives are rendered insusceptible to the action of the yellow-fever poison after birth.

(*To be continued.*)

REPORTS OF HOSPITAL PRACTICE IN MEDICINE AND SURGERY.

HOSPITAL FOR THE EPILEPTIC AND PARALYSED.

A SERIES OF CASES ILLUSTRATIVE OF CEREBRAL PATHOLOGY: CASES OF INTRA-CRANIAL TUMOUR.

(Under the care of Dr. HUGHLINGS-JACKSON.)

(*Continued from page 35, vol. ii., 1873.*)

Case 9.—Hemiplegia—Lateral Deviation of the Eyes from the Side of the Lesion—"Aphasic" Symptoms—Tubercle in the Pons Varolii.

For notes of this case I am indebted to the kindness of my colleague Dr. Gowers. The following is an abstract:—

Elijah R., aged 33, managing clerk in a brick-yard, was admitted into the National Hospital for Paralysis and Epilepsy in June, 1873, under the care of Dr. Hughlings-Jackson, with incomplete right hemiplegia, of gradual onset. The following was his state on admission:—He was a man of moderate height and ruddy complexion. His intellect was perfect and speech natural. His sense of smell was perfect. Sight good, though not quite so acute in the left as in the right eye; fields of vision normal; optic discs natural in appearance. The left pupil was rather smaller than the right. The movements of the eyes were free in all directions *except to the left;* each eye stopped about half-way between the centre of the palpebral fissure and the canthus. The eyes both in movement and arrest seemed to correspond perfectly. There was diplopia in certain positions—viz., on looking to the right, and also in the left half of the field of vision on looking straight forwards. One image was always above the other. Sensation on each side of the face seemed equal and normal. The contraction of the left masseter, however, was markedly weaker than was that of the right. The movements of the face in the lower part on the right side were much weaker than on the left. The eyes were shut with equal force. Tickings of watch heard equally well with either ear. The tongue was protruded straight. Articulation was distinct and deglutition natural. The carriage of his head was peculiar; it was slightly flexed, and inclined to the left, with the chin turned a little to the right. Arms: *Left* of moderate power; *right* very weak, and movements unsteady. Legs: The *right* was rather weaker than the left; but the latter was not so strong as it should be. He could not stand for more than a few moments without tottering. His walk was peculiar—slow, with the legs slightly flexed at the knee. The right side of the chest on quiet breathing moved less than the left. Sensation was diminished over the right arm, right side of trunk, and right leg. Everywhere, however, a touch could be felt, though less distinctly than on the left side. There was some wasting of the right arm and leg.

History of the Nervous Symptoms.—In the spring of 1869 he suffered for several months from intense pain at the top of his head. He was able to keep at business, however, and slept well. He had no vomiting, and took his food fairly. After the pain passed away he remained well until March, 1870 three months before his admission, when he noticed that his handwriting was becoming irregular, and he then discovered that his arm was actually weak. In April he found that his right leg was likewise getting weak: he could not walk further than a mile. Since that time the amount of power in the arm and leg has gradually diminished. The inequality of the face and occasional double vision have been observed for about the same time.

Other Symptoms.—There was considerable emaciation. The chest was narrow and flat, and presented evidence of consolidation at the apices of both lungs, most considerable on the right side, where there was absolute dulness below the clavicle, with bronchial breathing. On inquiry it was found that he had suffered from severe cough and occasional slight hæmoptysis several years before. There was a strong tubercular family history.

For some days after his admission into the Hospital there was very little change. Towards the end of June, however, vomiting came on, nearly all food taken being immediately rejected. The vomiting continued for about a week, and then ceased.

On July 5 the eyes could hardly be moved so far to the left as on his admission: they stopped at the middle position, or even a little to the right of the middle.

Sensation on the face to touch seemed rather less acute on the right than on the left side. Symptoms continued rather more marked—the weakness of the left masseter and right limbs, and defective sensation over the right limbs and right half of the trunk.

On July 7 the sickness was better, and his eyes could be moved about as far to the left as on his admission. Next morning, however, they could be moved nearly as far to the left as in health. A few days afterwards the power of movement had again lessened to about the same point as on admission.

On July 18 his intellect seemed still perfect, and his speech natural. He could still read No. 1 Jäger with each eye, perhaps not quite so readily as before. The field of vision continued normal. The eyes were moved to the left about as far as on his admission. Neither eye moved quite so far to the right as it should do, and before the motion ceased it became unsteady.

During the next few weeks there was a progressive loss of strength, and occasional vomiting; the vomiting was unaccompanied by nausea. The only ophthalmoscopic change was slight increase in the redness of the discs.

On August 9 and 11 his articulation for about half an hour on each day became unintelligible. The attendant described it as being as if he could not use his tongue properly; he made a mumbling noise when he tried to utter a word. The recovery of distinct articulation was gradual.

On August 15 his articulation again suddenly became indistinct; "Yes" and "No" alone were intelligible, all else was a confused jumble of throat sounds. He attempted to answer questions, but always in the same unintelligible noise. In the evening his speech was still in the same condition, but next morning there was some improvement. One sentence would be enunciated with perfect distinctness, and the next with so little articulation as to be unintelligible. Yes" and "No" were

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always clear. He seemed generally, though not always, to comprehend a question readily. Asked how he slept last night, he answered as plainly as usual with him, "Very well, thank you, sir."

On repeating the question, he replied with only an unintelligible noise. Asked, "Have you any pain?" he said, "No, thank you."—"Where are you?" "Yes per well."—"Where?" "Yell debi."—"What is your name?" "Fell de well."—"How old are you?" "Fell de well."—"How old?" "Fell de well." Then thinking, "Stop a minute, sir."—"Well, how old?" "Sejepel."—"Where did you live before you came here?" "Persewell." Asked again, looks lost without answering. On being shown his Bible and asked what it was, replied, "High Testament." Ditto inkstand, "Testament." Ditto pen, still replied "Testament"; but on being shown a quill-pen, he said "Pen"; and when asked what sort, he said "Quill."

He then read the following sentence, "A series of disasters fell on the French arms last week. While the results of those disasters were much greater," etc., thus—"Alsewell the results Ipswich the results but of the results to the question."

He swallows the first spoonful that is given him readily, but if a second is given him he often allows it to run about his mouth and escape again.

Next day (August 17) his speech was much more correct. When asked "Have you read the paper this morning?" he said, "I have no disposition to disposis—read it."—"Are you not interested in the war?" "I am more distested—disted in—rested in getting better." Everything else he said was correctly and readily uttered.

The degree of general emaciation was now great, and the wasting relatively was greater in the right arm than in the right leg.

The sensation in the right side of the face seemed undiminished. The left masseter acted a little more vigorously than before, but distinctly behind the other in point of time.

The paralysis of the right side of the face was about the same; that of the arm and leg greater. He could not quite touch his head with his hand.

During the following night he became unconscious, passing fæces and urine under him. Next day no sign of consciousness, and very little of sensation could be elicited. Both conjunctivæ were injected, and the cornea slightly hazy—the left rather more than the right. There was some râle in the chest and throat. The temperature, previously normal, was found to be rather elevated, and a degree higher on the paralysed than on the sound side—right 101·4°, left 100·8°.

Next day (August 19) the temperature was the same, but the pulse was weaker, and he was evidently sinking. He died the same evening. Urine throughout quite free from albumen or sugar.

Autopsy (eighteen hours after death).—Brain: Surface normal, except here and there slight opacity of the arachnoid; most marked at the base, in front of the pons, where the subarachnoid space contained some brownish transparent fluid. There was no trace of tubercle in the meninges. The convolutions, substance of the hemispheres, and central ganglia and cerebellum examined carefully appeared normal. The lateral ventricles were moderately distended with straw-coloured fluid. The fourth ventricle was then opened from above. Several distended vessels lay on its floor. The right half of the floor appeared normal, but the upper third of the floor on the left side was prominent, firm, and altered in appearance—greyish and translucent. On section this was found to be due to a firm, roundish mass, greenish-yellow and opaque on section, about the size of a half filbert. Anteriorly it projected a little beyond the limits of the pons for about one-twelfth of an inch into the cerebral peduncle; its posterior portion was about seven-eighths of an inch from the point of the calamus scriptorius. Externally it extended to about one-eighth of an inch from the outer limit of the pons, and inwards, at the centre, one-twelfth of an inch beyond the middle line. Above it formed a prominence, as before said, in the floor of the fourth ventricle, covered only by a very thin layer of nervous substance, while below, towards the free surface of the pons, it reached into the middle of the most superficial layer of longitudinal fibres, leaving the superficial layer of transverse fibres untouched. Another much smaller nodule (about a quarter the size of the other) existed in the right half of the pons opposite the centre of the larger nodule. All the other organs were healthy except the lungs, which presented abundant evidence of old tubercular disease. The apices were adherent to the ribs by dense fibrous tissue about a quarter of an inch thick and as hard as cartilage, and were occupied by obsolescent tubercle, much of it transformed into calcareous masses. The remainder of the lungs were thickly studded with grey granulations of various sizes, most of them white, opaque, very hard, large, and prominent, a few small and translucent. No cheesy masses; no pneumonia.

Remarks on this case will be given in our next report of cases in this series.

ST. THOMAS'S HOSPITAL.

MULTILOCULAR OVARIAN CYST—OVARIOTOMY—CONVALESCENCE.

(Under the care of Mr. WAGSTAFFE.)

ELIZA K., aged 23, married, of rather strumous aspect, was admitted, under the care of Mr. Wagstaffe, into St. Thomas's Hospital, December 8. In February she was troubled with prolapse of the uterus, and in March she had an illness, in which abdominal pain and tenderness, vomiting, constipation, and fever were the marked symptoms; but it was not until June that the swelling was really noticed. This swelling at first occupied the right side; it had varied in size, and was accompanied by occasional severe pains, but only once with anything like feverish symptoms. Catamenia rather excessive and frequent; bowels opened by means of medicine; water sometimes troublesome, apparently from pressure.

On November 3 the circumference of the abdomen was 35½ inches at widest point, and the notes taken at that time state—"Tumour placed rather deeply; fluctuation fairly distinct, but deep; probably some ascitic fluid over tumour. Breasts normal; pulse irregular, feeble; no cardiac murmur; no increase in area of cardiac dulness." Dr. Barnes saw her at Mr. Wagstaffe's request, and gave as his opinion that the left ovary was the seat of the tumour.

On December 8 she had been home for a month, but had suffered a great deal of pain, and about this time the pain became most severe in the region of the umbilicus, and down the left leg and thigh.

24th.—Her condition was somewhat altered. Circumference of abdomen increased by one inch and a half. Tumour more prominent, and areas of fluctuation allowed of three distinct cysts being diagnosed as composing the mass of the tumour, the largest cyst occupying the right side. Heart's action still very irregular.

Operation, 9.30 *a.m.*, *by Mr. Wagstaffe.*—Ether administered ineffectually for more than half an hour; then subcutaneous injection of morphia, a quarter of a grain, and chloroform inhaled in small quantity, soon produced anæsthesia. Incision less than three inches in length. Some ascitic fluid under peritoneum. Hand passed into abdomen, and no adhesions felt. Large cyst tapped and second cyst tapped from interior of large one, being protected by hand in abdomen behind second cyst. Tumour then withdrawn, and long pedicle exposed, with an enormously hypertrophied Fallopian tube connected with the tumour. Clamp included Fallopian tube, but left a long pedicle behind. Finger in pelvis found that the left ovary was the one affected. Tumour removed, and cut surface of pedicle touched with solid perchloride of iron, the clamp being secured outside the wound. Wound closed with silver wire, two of the sutures being made to traverse the peritoneum; the surface of the wound dressed with carbolised oil. During the day the patient was slightly sick, but otherwise comfortable. Temperature rose steadily to 102°.

25th.—The two deep sutures were removed. No pain or sickness.

28th.—All sutures removed except that nearest clamp; edges have united; no suppuration whatever. Taking solid food to-day.

29th.—Temperature has gradually gone down to 99°, with slight variations in the fall—the evening temperature being generally about one degree higher than the morning. The wound is a mere line of scar, with no suppuration. She has had no return of the pain in abdomen or thigh which she suffered from before the operation. Pulse quite regular.

Remarks.—This case shows some features of interest. The absence of any real adhesions, although the history of more than one attack of acute local peritonitis led to their being anticipated, strengthens the caution given by Spencer Wells against diagnosing them with much certainty. The tumour occupied

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chiefly the right side, and was first noticed on this side, yet it was the left ovary which was affected; and this was rendered probable beforehand upon the examination made by Dr. Barnes, for the sound passed to the right side, showing that the left ovary was being pulled up into the abdomen. The enormous dilatation of the Fallopian tube is probably to be accounted for in these cases by the constant congestion of the neighbouring ovary and broad ligament. The parts are continually, in fact, very much in the same condition as they are usually at the time of menstruation. With chronic congestion comes necessarily chronic hypertrophy, and the large size and increased vascularity of the tube make it difficult to separate it from the tumour without great risk of subsequent hæmorrhage. But if it be included in the clamp or ligature, the patient, as in this case, often complains of much pain immediately after returning to consciousness—much in the same way that pain would follow ligature of the spermatic cord in the male. In the present instance the pain was relieved by subcutaneous injections of small quantities of morphia. Another feature in the case was the irregularity of the heart's action, which made the administration of ether preferable to that of chloroform. But, owing probably to the imperfection of the apparatus used, the ether had no anæsthetic effect, whereas chloroform, with the subcutaneous injection of morphia, acted at once. It is probable that the ether did good by stimulating the action of the heart and opposing the depressing influence which chloroform might exert on a weak and irregular heart. The tumour, when opened immediately after operation, proved to be a multilocular one, and the cysts were arranged in the manner anticipated. Some of the cysts communicated with one another; and the largest one, first tapped, contained about fourteen pints. Altogether the tumour weighed about fifteen or sixteen pounds. The inner surface of the tumour showed some of the curious mapping-out of colourless circular areas which Mr. Wagstaffe exhibited in another case at the Pathological Society, and recorded in the twentieth volume of the *Transactions* of that Society.

STRICTURE OF RECTUM—DIVISION—VOMITING—RECURRENCE OF SYMPTOMS OF OBSTRUCTION AFTER NINE MONTHS—RELIEF BY DIETING.

(Under the care of Mr. WAGSTAFFE.)

Ellen H., aged 28, married, was admitted into Alexandra ward on January 22, 1873, with stricture of the rectum following injury during confinement six years before. The stricture was tight and elastic, and was situated about two inches within anus. It was divided by Mr. Wagstaffe in two directions by means of a curved bistoury, and dilated regularly afterwards. Vomiting was very troublesome after this, but ceased upon restraining the patient to simple milk diet. She went out March 3, apparently nearly well, but soon after getting home she again was troubled with the sickness, which increased to such an extent as to threaten death from starvation. She was unable to keep any food down, and the vomit was said to be sometimes fæcal. Nothing had passed by the bowels for a fortnight before she was brought in again, under Mr. Wagstaffe, she having been sent up with the view of having colotomy performed. On admission, December 11, there was still evidence of stricture in the rectum, with an irregular slightly nodulated and ulcerated surface below, but the stricture, as felt from the rectum, was not sufficient to produce total obstruction to the passage of fæces. Manipulation of the abdomen gave rise to retching, especially when the left iliac region was subjected to examination; and here a movable hard lump the size of a walnut and acutely tender could sometimes be felt. The left rectus felt shotty. The septum between vagina and rectum was much indurated along one line. There were no scybala to be felt or found. The inguinal glands were doubtfully enlarged on both sides. It was noticed that the abdomen was quite empty and intestines not distended by gas or fluid, and this fact negatived operation, for it appeared mechanically impossible for a stricture of large intestine to exist without distension by flatus, or fluid, or solid above. Moreover, the localisation of the pain and tenderness to the left iliac region, with the existence of a movable lump, and the history of such persistent vomiting, led Mr. Wagstaffe to suspect the existence of some general affection of peritoneum, and possibly of the mucous surface of the intestinal tract. The nature of this he was doubtful of, but considered it to be either syphilis or carcinoma. The patient was unable to swallow medicines; she was therefore kept to the simplest form of food—at first only beef-tea, with occasionally a little soda-water. Her temperature was 98°. She was much emaciated.

December 14.—Not so sick, and in no pain.

16th.—Sickness again severe last night.

18th.—Only sick once since the 16th, and that after taking something to eat which had been brought to her by her friends. Can now take milk.

20th.—No more sickness; great hunger.

21st.—No return of sickness. Left Hospital because she was not allowed to have solid food.

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The Medical Times and Gazette *is published on Friday morning, Advertisements must therefore be sent to the Publishing Office not later than One o'clock on Thursday.*

Medical Times and Gazette.

SATURDAY, JANUARY 3, 1874.

DR. FRANCIS C. WEBB.

It is with unspeakable regret we have to announce the untimely death of Dr. Francis C. Webb, the editor of this journal. Little did we his colleagues think that when he had finished the last number for 1873 he also wrote "Finis" to his earthly labours. Words are weak to express our loss, for in him were united many noble qualities; but, an honest God-fearing gentleman, kind of heart, and ever anxious to do what was right and good, he has gone to join the majority. With us, who are left to carry on the work, the sense of personal loss is deep and true: what the grief and dull blankness must be in the home thus bereaved of the husband, the father, and the bread-winner, we dare not yet speak.

BLOODLESS SURGERY.

At the beginning of a new year those who are possessed of a love for their calling, and whose thoughts range beyond their own immediate interests in it, are likely to take a retrospective glance with the purpose of satisfying themselves as to how far their art has been advanced or improved in the past year.

In one of the recent introductory addresses—viz., that which was delivered by Mr. Erichsen at University College—it was stated by the author that he believed we have at length reached something like finality in the mere manipulative art of surgery, and that we can scarcely hope to pass further in the direction of extreme precision and certainty in

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the performance of surgical operations. Mr. Erichsen was led to this conclusion by some such thoughts as the following:—

"When we reflect that every large artery up to the aorta itself has been ligatured; that each of the six large articulations and many of the bones have been resected; that the amputation of each limb up to the shoulder and hip-joints is a matter of ordinary surgical occurrence; that large tumours having the most intricate anatomical connexions have been removed from every surgical region in the body—from the base of the brain to the lowest organ in the pelvic cavity;—when we reflect, I say, on triumphs of the surgeon's art that are expressed by operations such as these, we can scarcely believe that much remains for the daring of the boldest to devise or the skill of the most dexterous to accomplish in the extension of that art in the direction of the operative department of our profession, and that he must in future be content to repeat, though possibly in a modified and improved manner, those operations that have been inaugurated by the genius and perfected by the skill of his predecessors."

It is quite possible that the experience of future years may prove the general correctness of this opinion, for, as the human frame is limited, there must be limits to the application to it of cutting instruments, and there must be parts of it which will remain always intolerant of any marked interference by the scalpel. Fallacious as are arguments based upon the inconceivability of a thing, it may, nevertheless, be safely asserted that no combination of boldness and dexterity will ever succeed in saving life, *e.g.*, by removing a tumour from the interior of the brain, a blood-clot from the optic thalamus, or by closing a patent foramen ovale, or dissecting off a warty growth from the aortic valves.

But even granting finality to have been reached by surgery in this direction, still there are few, if any, surgeons who have reached, or ever will reach, these final limits in all directions; so that dexterity and precision in operating must never be undervalued in importance, and progressive improvement in them will always have to be sought by every single individual. But if something like perfection in operative surgery has been reached, there has been likewise a proportionate tendency to limit the number and to lessen the severity of operations, and to substitute for the knife manipulations of a gentler character. Undoubtedly it is along this line of improvements that anyone looking back upon the last two or three years of the history of surgery will find the greatest progress.

The objects sought after have been the substitution of simple for severe measures, and the protection of parts as well as life; while the expenditure of force and the loss of blood during surgical operations have in many ways been minimised or annulled.

To refer first of all to the subject of aneurism. We have seen, in recent years, compression to a large extent displace the knife and ligature in the treatment of external aneurisms, and during the past year Mr. Tufnell has put on record a case which proves that in aneurism of the limbs even compression can be sometimes with advantage displaced by the still simpler treatment—rest and restricted diet. We may, too, be not altogether without hope that in other cases, in which neither compression nor the knife are available or advisable, success may attend the introduction into the sac of horsehair or catgut.

In the treatment of stone in the bladder, to how great an extent has lithotrity been employed instead of lithotomy; so much so, indeed, that some excellent surgeons are favourable to it in patients of all ages,—even in children fifteen or eighteen months old. Still, we are encouraged to think that the attention which has been drawn to this subject during the past year will have the effect of further ameliorating the treatment of vesical calculus, and to hope that chemists will in time instruct us how to disperse at least some calculi without either lithotrity or lithotomy.

Again, how much more frequently than formerly do we witness the triumph of splints, tension, and common sense in the treatment of deformities, whereby considerable—if not violent—force and the operation of tenotomy are rendered unnecessary.

The application of electricity in surgery, whether for the purposes of treatment or diagnosis, has, we imagine, many more successes to work than it has yet produced. In the treatment of aneurism it has been attended with some amount of promise; in the diagnosis and treatment of some deformities of the limbs it has given still more. The galvanic écraseur, which is now very largely used, is an application of the same power to remove in a bloodless manner vascular tissues.

The invention of the abdominal tourniquet has been the means of preventing great losses of blood in certain operations, and rendering cure possible in cases in which the use of the knife could not have been attempted at all.

But of all the means for performing important operations in a safe and, at the same time, bloodless manner, none is of more value or has a wider application than the pneumatic aspirator. It is daily being more and more widely used; and in the diagnosis and treatment of cysts and abscesses of the liver, in the relief of an over-distended bladder from prostatic disease, in the treatment of pericardial and pleuritic effusion, in some cases of strangulated hernia, colon or stomach over-distended with flatus, and for evacuating fluid from distended joints, it has not only rendered unnecessary the employment of the knife, but has enabled cures to be wrought without the risks which must otherwise have been run in dealing with such complications as the above-named. During the last few months, however, the term "bloodless operations" has been almost exclusively applied to operations performed upon limbs after these have been deprived of blood by the elastic bandage and cord of Esmarch; and to the ablation of parts by the elastic ligature. Both these methods have, during the latter part of the year now just passed, excited much attention in this country. The elastic ligature, though capable of a much wider use than it now enjoys, will not, we feel sure, be adopted by English surgeons in the same extensive way as by Professor Dittel.

Esmarch's mode of preventing hæmorrhage during operations has been largely put on its trial in metropolitan hospitals since its introduction to St. Thomas's Hospital by Mr. McCormac; and it has gained a firm footing in practice as a convenient, efficient, and simple expedient. The details and the advantages of this method are now too well known to require comment, and criticisms upon it have been freely expressed. Much careful observation ought, however, to accompany its employment, in order that certain questions which have naturally been raised may be answered. By time and experience it will probably be found that the saving to the patient and the facility afforded the operator by absolute freedom from bleeding during the operation will not be an unmixed advantage, especially in persons with diseased vessels or viscera. Moreover, further information is required as to the frequency of sloughing of the flaps, and also of after-hæmorrhage either from vessels of medium and small size or from the whole surface of the wound, from which, in some instances, blood has been seen to ooze as from a sponge.

As a conservative and blood-saving agent, and as tending to disarm operations of much of their fatality and a great many of their horrors, this and the other auxiliaries we have named, with which modern science and invention have supplied surgeons, have improved and extended the surgical art, and have rendered to it services for which the intellects of men may be proud and their hearts thankful. And if in the future it is found that manipulative surgery can only be kept up to its present height, but no further perfected, there still remains this consolation,—that modern surgery is capable of f

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progress and improvement in its scientific element, and can be made to develope into something still more efficient than it now is, both in preserving life and diminishing pain.

ANGINA LUDWIGII, OR MALIGNANT CYNANCHE.

It is a remarkable fact that the late Professor Oppolzer, of Vienna, was at once one of the most famous clinical teachers of his time and no author. At his death, some two years and a half ago, he left scarcely a page behind him to preserve his enormous experience in an available form, or to transmit, if possible, to his successors his famous diagnostic faculty and therapeutic skill. Very fortunately, however, a considerable amount of material has survived Oppolzer in one way or another, from which treatises, representing his teaching on various subjects, can be compiled; and we have already before us the second of a series of articles which are in course of publication in the *Wiener Allgemeine Medizinische Zeitung*, embodying some of his most interesting clinical lectures.

This article is on "Malignant Cynanche, or Angina Ludwigii" (*loc. cit.*, Nos. 35 to 38). Oppolzer employed the term malignant sore throat in a more comprehensive sense than Ludwig, who first drew attention strongly to it. The latter described the disease as dependent upon the presence of a septic exudation in the tissue around the submaxillary glands, and regarded it on this account as an essentially idiopathic affection. Oppolzer, on the other hand, would extend the term to include the most various forms of inflammation of the subcutaneous and cellular tissue of the neck. He accordingly reckons among the causes of the affection not only atmospheric influences, such as cold and epidemic circumstances which are credited with the etiology of the idiopathic form, but contiguous disease of the same nature, and metastasis during exanthematous and puerperal fevers. Adults are attacked more frequently than children. The pathological anatomy of the cynanche is familiar. The focus of inflammation is the cellular tissue of the submaxillary glands; more rarely of the parotids and sublinguals. The exudation is fibrinous, with a great tendency to degenerate into foul pus. From this centre the exudation may extend in almost any direction, even to the sternum and clavicle below, to the ear above, and round the side of the neck. The gland tissue may or may not be altered. The mucous membrane and submucous tissue of the mouth, pharynx, larynx, and trachea may be normal, hyperæmic, or infiltrated with a serous or sero-fibrinous exudation. Rarely there is periostitis of the lower jaw.

The disease commences with the usual symptoms of pyrexia, upon which there supervene certain local phenomena—swelling of the neck, fulness and hyperæmia of the floor of the mouth, pain in the throat, and difficulty of swallowing, speaking, and mastication. The external cervical swelling is characterised by its rapid growth, by the directions in which it spreads—from the submaxillary region upwards to the parotid, inwards over the larynx and trachea, and downwards as far as the sternum; and by the striking board-like resistance it offers to the finger, even from its very earliest stage, while its borders are œdematous, soft, and elastic. The oral swelling as rapidly increasing in size, the tongue is pressed against the palate, and this condition, as well as the inflammatory alteration of the hyoid, genioid, and glossal muscles, render mastication, deglutition, and vocalisation difficult or impossible, and give rise to alarming or even fatal dyspnœa. The last symptom is increased in severity by the extension of the external swelling to the region of the trachea and by œdema of the glottis.

The course of the disease is various. The swelling sometimes resolves; at other times it points in the neck, and healthy pus is evacuated, with instant relief. In a third group of cases the swelling becomes gangrenous, and breaks down into a foul liquid; it softens at several different points, and fluctuates and crepitates under the finger. The discharge, when it occurs spontaneously, is most frequently internal; the fluid is thin, stinking, and gangrenous, and little or no relief is obtained. Meanwhile, the general symptoms, instead of declining as in the case of resolution or laudable suppuration, assume a typhoid character, the patient is excessively restless and weak, and the skin is bathed in an obstinate profuse perspiration. There is a distressing feeling of anxiety and pressure—chiefly in the form of paroxysms; sleep is disturbed or absent; low delirium and sopor make their appearance; and œdema of the lungs puts an end to the suffering of the patient.

Malignant cynanche is nearly always acute in its course, lasting from ten to twenty days. Rarely it becomes a chronic swelling, or leaves fistulæ behind it. The prognosis depends entirely upon the character of the angina. If it goes on to gangrene, recovery is the exception. Quite the reverse is to be said of those instances in which resolution or healthy suppuration ensues; but even here death may be the result, from acute œdema of the glottis, pyæmia, the sudden bursting of the abscess into the respiratory passages, or its descent into the mediastinum.

Oppolzer treated the disease as follows:—As in all other inflammations, he was fond of beginning with cold moist applications to the part, substituting warm fomentations for these when the patient complained. He believed that this treatment not only favoured resolution, but relieved the pain, and he was careful to apply the water as cold as possible, and change the cloths as soon as they became warm. If the symptoms did not abate, or, on the contrary, increased, Oppolzer next applied leeches locally, and this as a rule with the happiest results—the disease either disappearing or taking a mild form. Severe pain was relieved by morphia. When, in spite of these various means, the swelling continued to increase, and alarming dyspnœa supervened, Oppolzer lost no time in scarifying the swelling freely, and, should this not be successful, in opening the trachea. "When the signs of pus are present," says Oppolzer, "the surgeon should not hesitate for a moment to reach it with his bistoury. The internal treatment of the patient must be pursued on general principles, and wine, soups, quinine, and the mineral acids administered with discretion. Should the condition become chronic, mercury, iodine, and blistering will be found to give the most satisfactory results."

THE WEEK.

TOPICS OF THE DAY.

In this dull season of news the subject of vivisection is being discussed at considerable length in the columns of the leading journal. Of course a variety of statements are made on both sides of the question. This conflict of opinion can only be explained by the subject having been treated in a majority of instances by persons having but an imperfect knowledge of the matter in dispute. It will be admitted, however, we believe, on all hands, that vivisection has occasionally been carried to an unwarranted and unnecessary extent. These are but exceptions to the rule, for in the main the experiments on living animals have been conducted with the least possible amount of suffering. It will be remembered to what a storm of obloquy the late Dr. Marshall Hall was subjected for his experiments on the turtle and the frog. His simple reply to the odious charge was, that in every instance, before proceeding with his experiments, he had destroyed all sensation by dividing the head from the body. It must be remembered, also, that since the discovery of chloroform this agent has been generally used to prevent suffering. There is another point, at least, on the part of the public, the consideration of which has not met with the attention its importance demands. In a very sensible

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letter in the *Times* of Monday last, from Mr. E. Ray Lankester, this point is thus forcibly put:—

"I would say one word, finally, as to the supposed expressions of pain on the part of the lower animals. These are very delusive, and have, no doubt, in the case reported from Florence, led to wrong conclusions. A dog will howl far more distressingly at the moon than when its tail is cropped, and the struggles of a headless, and therefore unconscious, frog are more painful to witness than those of a frog intact. I beg those who attack vivisection to think of this. I am sure that they have a most exaggerated notion of the horrors of a physiological laboratory. I have spent four months working daily in the physiological institute of Professor Ludwig at Leipzic, and there were, I suppose, on an average three operations a day. I never saw or heard there anything which indicated an indifference to the sufferings of the animals operated upon; and I must confess that, owing to the careful use of narcotics and the skilful management of the Professor and his assistants, there was a minimum of those struggles and cries which I had fearfully anticipated, and which constitute one of the imaginary horrors of vivisection."

We were somewhat astonished at a letter, immediately following that of Mr. Lankester in the *Times*, from Mr. George Macilwain (erroneously printed Macvar), not only objecting to all vivisection, but denouncing it as injurious to science and leading to erroneous conclusions. Such statements, coming from a man who has done much for the science of medicine, are calculated to do immense injury. They are certainly not borne out by facts, and they only tend to foster a prejudice in the public mind against proceedings which, when conducted properly and with a due regard to the salvation of suffering, are most useful and commendable.

The beneficial results of the Contagious Diseases Act in the prevention of venereal diseases among the troops has been strikingly shown (says the *Army and Navy Gazette*) during the recent Autumn Manœuvres at Dartmoor, when it was found that five times as many cases, in proportion to the strength, were admitted into hospital from among men coming from unprotected places as were admitted from places under the Contagious Diseases Act.

Dr. Barclay, Medical Officer of Health for Chelsea, states in his last fortnightly report that the mortality in that parish continues to be swelled by a large number of deaths from measles and a considerable mortality from diseases of the chest. The deaths among children under five years of age were not excessive.

In cases of measles, Dr. Lankester, Medical Officer of Health of St. James's, Westminster, has given instructions that in future in that parish this complaint should be treated in the same way as scarlet fever with reference to sanitary measures.

A special meeting of the Manchester Board of Guardians has been held, to inquire into the circumstances attending the death of Mary Ann Lyons, a pauper, who died while being conveyed to the Manchester Workhouse. The evidence of the medical officers and other officials of the workhouse having been heard, the following resolution was unanimously adopted:—"That after hearing the evidence of the various witnesses who were called before the coroner to inquire into the death of Mary Ann Lyons, a pauper in receipt of outdoor relief, and other witnesses, this Board, whilst deeply regretting the painful termination of the case, do not feel justified in expressing censure upon Mr. Thomas Price, the medical officer of the district, or any of the other officers, being of opinion that no neglect was practised in the treatment of the case, and no unreasonable delay occasioned in the removal of the deceased from her residence to the workhouse hos ital."

Dr. William Guy, F.R.S., in his inaugural address at the opening meeting of the present session of the Statistical Society, suggested the establishment of a medal in honour of the memory of John Howard, the great statist, and the Council of the Society have adopted the suggestion. The medal is to be awarded every year to the author of the best essay on one of the many questions which John Howard studied. The following is the subject of the essay for the present session:—"The State of Prisons, and the Condition and Treatment of Prisoners in the Prisons of England and Wales during the last half of the Eighteenth Century, as set forth in Howard's 'State of Prisons,' and his work on 'Lazarettos.'"

THE ASHANTEE WAR.

Although an error was obviously made in reporting the arrival of the 42nd Highlanders at Cape Coast Castle, in the last advices received from the Gold Coast, it is certain that long before this the whole of the European force intended to take part in the advance on Coomassie has been disembarked, and is doubtless by this time on their way to the interior. More than one authority on the spot is of opinion that some real hard fighting will have to take place before the end is achieved; and, if these anticipations are correct, the formation and protection of the numerous field hospitals likely to be established on the long line of march becomes of even greater consequence than at first sight appeared.

If the road up to the river Prah is by this time free from all invaders, the station hospitals may be established so far free from all risk of attack; in this case it would only be necessary to tell off for each one a fair number of hospital orderlies to act under the instructions of the medical officer in charge, and to superintend the reception and forwarding of the sick and wounded. But after crossing the Prah our men may fairly be assumed to have entered the enemy's country, and the establishment and maintenance of the station hospitals will become a more difficult task. It is to be hoped that Sir Garnet Wolseley will appoint a small guard of effective men for the defence of each station selected. Upon a previous occasion we explained that the authorities had it in contemplation to establish one of these hospitals at an interval of about every ten miles: if the distance, therefore has been tolerably well estimated, there would be about nine of these hospitals between the Prah and Coomassie, and a sergeant's guard for each would not perceptibly weaken the fighting strength, whilst it would afford comfort and security to the poor fellows who might be lying incapable of any effort for their own defence, and remove all anxiety from the medical officer under whose charge they will be placed.

On both sides of the great half-way boundary line, the Prah, European superintendence will be absolutely necessary to ensure the safe convoy of sick and wounded men, not so much to guard against attack, as to prevent the wholesale desertion of the bearers; the preliminary experience acquired of the fidelity and trustworthiness of our allies having shown them to be utterly devoid of honesty and good feeling. No doubt the principal medical officer of the expedition will, as far as possible, personally supervise the arrangements along the whole line; but with 190 miles to traverse, a great deal must be left to those under his orders, and it is not too much to say that the ratio of deaths will largely depend upon the care and celerity with which the sick and wounded can be sent down from the front to the sea.

Precaution has been taken to send out quantities of those medicines known to be most required, packed in such a manner that supplies may be left at each station hospital available for immediate use; in fact, we think it may be said that all the arrangements for the transport and comfort of the sick which could possibly be thought of, have been thoroughly carried out, so far as the authorities in this country are concerned. Were we as sure that a regular corps of trusty bearers had been raised and organised specially for hospital service, we should

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unhesitatingly assert that everything which medical experience could suggest had been amply provided to meet the coming emergencies.

THE BRITISH MEDICAL BENEVOLENT FUND.

THE Committee of the British Medical Benevolent Fund earnestly appeal, at this season, to the profession for help towards the relief of the many cases of distress among their poorer brethren which continue to reach the Committee from various parts of the kingdom. In addition to these urgent demands from the needy and destitute upon the department for immediate relief, the great desirability of increasing the slender amount to which the annuities are of necessity at present limited—and which ranges from £15 to £20—has especially pressed itself upon the consideration of the Committee. Indeed, a glance at the cost of the necessaries of life will be sufficient to show the painful inadequacy of such a pittance, which in not a few instances is all the recipients can count on for their own. In view of this a movement has been set on foot in the hope of obtaining a sufficient sum to enable the Committee, by investment, to raise the incomes of the annuitants (in succession, as the fund permits) to £26, or say ten shillings a week; and a nucleus has been already kindly contributed, amounting to something over £150. The details of cases within the ordinary experience of the Committee would amply support in the strongest terms this call for help. The Committee, however, feel confident that, even without such, the good cause they advocate will plead for itself to the generosity of the profession at large, and will not plead in vain. Contributions, either to "The Special Fund for Augmentation of Annuities," or for "the general purposes of the Charity," will be thankfully received by the treasurer, C. J. Hare, M.D., 57, Brook-street, Grosvenor-square; or by C. S. Webber, F.R.C.S., honorary financial secretary, 1, Upper Berkeley-street West, Hyde-park, W.

HEALTH OF NEWCASTLE-UPON-TYNE.

THE report of the Committee of the Northumberland and Durham Medical Society, appointed to inquire into the causes of the high death-rate in the borough of Newcastle-upon-Tyne, just published, states that in the borough of Newcastle-upon-Tyne, during the months of July, August, September, and October, diarrhœa has been fatally prevalent, scarlet fever epidemically prevailing, and enteric or typhoid fever more common than usual. In the investigation, facts were tendered in support of the view that much of the general sickness of the town was due to breathing vitiated air, and drinking unwholesome water, such conditions impairing health and increasing the susceptibility to the influence of the poison of the fevers or other infectious diseases. It was considered that in addition to the air of habitations becoming vitiated, the atmosphere of the town was polluted, the pollution being the result of the evolution of muriatic acid and other gases. The local Acts were thought to be imperfectly operative, for two reasons—first, because they allow too great a percentage of gas to be evolved; and, secondly, because they extend only to certain manufactories, which emit certain gases. The vitiation of the air of habitations was regarded as the consequence of overcrowding, from immigration and high rents; insufficient renewal of air, from the arrangement and construction of the rooms being faulty; the passage of impure air into a room from the basement; defective ventilation of water-closets, and the want of proper privy accommodation and refuse bins,—conditions which of themselves insured filthiness. As to the water supplied to the inhabitants of the town by the Newcastle and Gateshead Water Company, evidence was received of the water being imperfectly filtered; the retention of organic matter in potable water being looked upon as highly prejudicial to health.

MICROSCOPICAL SOIRÉE AT ST. THOMAS'S HOSPITAL.

ON Thursday, the 18th ult., a microscopical *soirée* was given in the library of St. Thomas's Hospital by the President of the Physical Society, Mr. Wagstaffe. The attendance was large, including the Treasurer, most of the hospital staff, and many past and present students. Several of the members of the staff kindly co-operated with the President in exhibiting a most select collection of specimens. Great satisfaction was expressed by all present at the success of the meeting, an ample supply of microscopes and lamps rendering the most common evils of *soirées* conspicuous by their absence. Among many other objects of real excellence, we may mention an instructive section of the spinal cord by Mr. Croft, showing the multicaudate ganglion-cells to perfection. Specimens of living *Opalina*, in serum from the intestines of a frog, shown by Dr. Ord, and the phenomena of cyclosis in plants, and ciliary and amœboid motion, illustrated by Messrs. Wright and Jacob, attracted great attention. Mr. C. Stewart showed a complete vertical section of skin, differentially stained, of almost diagrammatic exactness. Syphiloma of lung and ossifying cartilage were respectively shown by Drs. Payne and Greenfield. Mr. Rainey illustrated diffusion in liquids by coloured experiments, and showed the artificial production of shells in carbonate of lime. Dr. Evans exhibited specimens of urinary crystals, and a very fine section of kidney, showing commencing tubercular disease. Mr. Arnott's table illustrated very completely the various histology of cancer. The President showed some typical specimens of diseased muscular fibre. In the physical room adjoining, Dr. Stone gave some successful demonstrations of spectroscopic and polariscopic phenomena. Other members of the staff lent a very interesting collection of surgical photographs, illustrating some results of both civil and military surgery; and some of the most attractive objects of the evening were the stereoscopic slides, chiefly of statuary and landscape, lent by Messrs. Murray and Heath, of Jermyn-street.

HEALTH OF IRELAND.

THE quarterly return of the Registrar-General of Ireland, reports that during the quarter ended September 30 last the deaths registered in Ireland during the third quarter of 1873 amounted to 19,271, affording an annual ratio of 1 in every 69·2, or 14·4 per 1000 of the estimated population, the average number registered during the corresponding quarter of the previous five years being 18,479 or 13·6 per 1000 annually of the estimated mean population for that period. The deaths registered in Leinster during the quarter afford an annual rate of 16·4 in every 1000 of the estimated population of the province. The rate in Munster was 15·1; in Ulster, 13·7; and in Connaught, 11·9 per 1000. The death-rate, represented by the number of deaths registered, was highest in the following counties:—Dublin, 19·5 in every 1000 of the population; Waterford, 19·0 per 1000; Kilkenny and Antrim, each 16·6; and Kildare, 15·8 per 1000. The deaths registered in the Registration County of Fermanagh afford an annual rate of only 9·4 per 1000; in Sligo the rate was only 10·0; in Leitrim, 10·5; in Roscommon, 10·9; and in Tyrone, 11·6 per 1000. The reports from the registrars, generally, show the public health in Ireland to have been good; no epidemic prevailed to any extent, and the deaths from preventable diseases were considerably under the number in either of the two preceding quarters of this year. The mean temperature at Dublin for the quarter was 1·4° under, and the rainfall 3·08 inches over, the average in the third quarter of the five years 1868-72.

EUROPEAN DEATH-RATE AT SIERRA LEONE.

SOME interesting statistics have recently appeared in a contemporary, showing the dangers incurred by European residents on the West Coast of Africa; the facts are taken from the

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reports of the Sanitary Commissioners at Sierra Leone. Taking the average of the last eleven years, the annual death-rate among European residents at that place has been 210·18 per thousand, probably the highest death-rate for a succession of years ever recorded in any civilised state or settlement. Moreover, it must not be forgotten, as a further proof of the deadliness of the climate, that the bulk of the Europeans living on the Coast are men selected for their health, strength, and peculiar fitness—colonial officers, for instance, being compelled to pass a medical examination on appointment. The percentage of women amongst the Europeans is extremely small, and there are no children. Again, in the former rate none of those who die on the passage to England from the effects of disease contracted on the Coast are included; if they were, it would probably increase the result by 25 per cent. Under the denomination of Europeans, also, many natives of the West India Islands are reckoned, and they are generally supposed to be better able to withstand the effects of the climate than Europeans. Among the natives, so far as could be ascertained from the statistics open to the Sanitary Commissioners, the death-rate exceeds 50 per thousand; but, as the registration of deaths is not with them compulsory, the Commissioners are of opinion that this return is greatly understated. A scheme of drainage for the town of Sierra Leone has been recommended by the Sanitary Commissioners, which could be carried out with great facility; and they point out the necessity of establishing a system of subsoil drainage if the health of the population is to be benefited, as it is generally believed that the wetness of the soil intensifies the fatal effects of malarious diseases both amongst Europeans and natives.

NEW LONDON HOSPITAL MEDICAL SOCIETY.

THE old Society of this Hospital became extinct some years ago from various reasons. It was thought that it would be well in the interest of the students to establish a new one, and this has now been successfully accomplished, mainly, we believe, through the endeavours of a member of the staff, vigorously backed up by the resident medical and surgical officers. The intention of the Society is to encourage the students to ward work, and thus to have a practical foundation for their papers. Pathology, histology, and other sciences auxiliary to medicine and surgery, will also be admissible for discussion. The first meeting was held on December 18 in the anatomical theatre, and Mr. L. McKenzie read a paper on "Apoplexy," followed by one from Mr. Withers on "Spontaneous Version." A lively and interesting discussion ensued. We cordially sympathise with the objects of this young Society, and trust that its organisation and working will be such as to insure success.

STATUE OF THE LATE ROBERT JAMES GRAVES, M.D., OF DUBLIN.

THE many friends and former pupils of this distinguished clinical teacher and physician will rejoice to learn that a movement is on foot for the erection of a statue of him, to be placed in the hall of the College of Physicians, Dublin. We believe that an influential committee has been organised for the purpose of carrying out the details of the project, and of receiving subscriptions towards defraying the cost of the statue. The honorary secretaries are Dr. Hudson, ex-President of the College of Physicians, Ireland; Dr. Stokes, Regius Professor of Physic in the University of Dublin; and Sir William Wilde.

CHOLERA ON THE CONTINENT.

DURING the last week several cases of cholera have occurred at Augsburg. They have been quarantined under a special ordinance, nearly all the cases being arrivals from Munich. The disease at Munich has greatly subsided, but the epidemic is still prevalent.

MEDICAL EDUCATION IN INDIA.

DR. T. E. B. BROWN, Principal, Lahore Medical School, in his annual report of the Lahore Medical School for the year 1872-73, states—"Students in this school are divided into two classes—senior and junior—the course of instruction in each class lasting two years and a half. During 1872, forty-three pupils were instructed in English by four English professors, and eighty in vernacular by three native professors, at total cost of Rs. 69,479-6-7, or very nearly Rs. 564 a head per annum. All the subjects taught in English medical schools seem taught in this, except medical jurisprudence. His Honour the Lieutenant-Governor of the Punjaub takes exception to the number of subjects as too numerous. But surely the omission of medical jurisprudence from the course is a grievous mistake, seeing that sub-assistant-surgeons are frequently the advisers of magistrates in cases in court requiring an expert's opinion as to the cause of death."

MORTALITY FROM YELLOW FEVER.

DURING the recent epidemic of yellow fever in Shreveport, La., the ages of 585 persons who died of the disease have been ascertained. The *Shreveport Telegram* says—"Of these, 100 died under 10 years of age, 94 were between 10 and 20, 156 were between 20 and 30, 134 were between 30 and 40, 59 were between 40 and 50, 29 were between 50 and 60, 13 were above 60. It will be observed that the greatest mortality occurs between the ages of 20 and 30 years, and the next greatest from 30 to 40, the period of life when the human system generally has most capacity to resist disease. We must presume that there are more children in the city under 10 years of age than adults between 20 and 30, and certainly more than between 30 and 40, and yet we see that the victims are more than half as many again between 20 and 30 years of age as there are under 10, or from 10 to 20; and nearly the same ratio holds as to those who died between 30 and 40 as to those who died under 10 years and from 10 to 20."

PRESENTATION TO A HOUSE-SURGEON.

MR. WILLIAM G. JOHNSON, House-Surgeon at the Bedford General Infirmary, being about to leave, has been presented with a valuable timepiece and the following address:—

"We, the workmen employed at the Britannia Iron Works, beg you to accept this testimonial as a slight token of our respect. Many of us can individually bear witness to the undeviating attention which you have paid to us when suffering either from accident or disease. To have the praise of all men is more than mortal can expect, and yet we cannot call to mind a single case of complaint or dissatisfaction with your care or kindness. This appreciation of your services is, we are confident, shared also by those of the general public who have been under your treatment. We have only to add our hope that you will be long spared to continue your services to suffering humanity; and hope that as long as you live you may ever deserve and command the esteem of those with whom you are, whether professionally or otherwise, brought into contact."

THE HOWARD MEDAL.

BY referring to our advertising columns, it will be seen that the Council of the Statistical Society have given effect to the views of the President, Dr. Guy, F.R.S., regarding John Howard, and his claim to be considered at least as much a statist as a philanthropist, by establishing a Howard Medal. This medal is to be given every year to the author of the best essay on some subject in social statistics, giving a preference to those in which Howard himself was most interested. The subject of the essay for which the medal will be given in 1874 (the year in which Howard achieved his Parliamentary triumph) is—"The State of Prisons, and the Condition and Treatment of Prisoners in the Prisons of England and Wales during the

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last half of the Eighteenth Century, as set forth in Howard's 'State of Prisons,' and his work on 'Lazarettos.'" Full particulars may be obtained on application to the Assistant-Secretary of the Statistical Society, 12, St. James's-square, S.W.

SCHOOL OF PHYSIC, TRINITY COLLEGE, DUBLIN.

THE existing accommodation having been found quite insufficient to meet the wants of the rapidly increasing numbers attending this school, the board of Trinity College have resolved to undertake the erection of a pile of buildings at the eastern extremity of the College park. These buildings will include a spacious anatomical and physiological museum, a series of professors' rooms and offices, and probably a physiological laboratory on the most modern and approved model. The enlightened spirit in which the authorities of Trinity College are thus acting cannot be too highly commended.

HARVEIAN SOCIETY OF LONDON.

IN consequence of the death of Dr. Fuller, for many years Treasurer of the Society, the Council of this Society have resolved that the usual annual *conversazione* shall not be held. The annual meeting will take place on January 8 (not January 1, as previously advertised), and the usual official business of that meeting will be transacted—viz., the election of officers and Council for 1874, the reading of the Council's annual report, and the President's address.

DEATH OF MR. THOMAS WORMALD, F.R.C.S.

AT the moment of going to press we have heard, with a regret in which many will participate—especially old Bartholomew's men—that this estimable member of our profession expired on Sunday last, when on a visit to a sick brother, at Gomersal, Yorkshire. An extended notice of the deceased will appear next week.

FROM ABROAD.—INTRODUCTION OF LARGE QUANTITIES OF FLUID INTO THE INTESTINAL CANAL BY GRAVITATION—THE FRENCH ACADEMICAL PRIZES—CASE OF TORN-OFF UPPER EXTREMITY.

PROFESSOR MOSLER recently read before the Greifswald Medical Society an interesting paper (reported in the *Berlin. Klin. Woch.* for November 10) on the "Utility of the Introduction of Large Quantities of Fluid into the Intestinal Canal in the Treatment of Internal Diseases." He observes that Professor Gustav Simon not long since demonstrated that water forcibly injected by the anus very speedily traversed the large intestines, probably reaching the small intestines, without doing the patient the slightest harm. In two patients having fæcal fistulæ, tepid water forced in by a pump flowed out from the apertures within five minutes. Since then, Dr. Hegar has substituted an irrigator for the pump with the same result. The apparatus consists only of a glass funnel and a caoutchouc tube a foot and a half in length, furnished with an olive-shaped mouth-piece. Dr. Hegar states that with this apparatus an enema may be readily administered while the patient lies on his back or side; but if it is wished to fill the upper portion of the intestine, great advantage is derived from placing him on his elbows and knees, or in a position which brings the head and chest forcibly towards the pelvis. Having cleared out the tube of air by filling it and the funnel with water, it is introduced into the anus, the funnel being held on a level with this or a little higher. The first pint of fluid usually passes readily enough, but at the third or fourth the passage becomes slower, and requires the funnel to be raised. The introduction should be made very gradually, and even temporarily suspended by lowering the funnel, which, indeed, must never be raised higher than necessary to secure the passage of the fluid. Dr. Hegar has never had occasion to raise it more than half or three-quarters of a German foot above the anus, and has been enabled to introduce from five to nine pints or more before the sphincter yielded, and allowed the fluid to flow out again by the side of the tube.

Professor Mosler has been enabled to confirm these statements by observations in his own clinic, having been able in this way to introduce four or five litres of water. He has, however, not infrequently found that much headache and inconvenience are caused by the head being kept so long in a dependent position; and he thinks mischief attends the patients assuming the knee-and-elbow position in cases of fever, affections of the head, and great debility. These and other reasons, which we pass over, induced him to try whether this inconvenient position might not be avoided, and the intra-abdominal pressure which Hegar sought by its means to overcome, be obviated by the employment of a longer tube and a higher elevation of the funnel. The first trial was quite successful, three litres of warm water having been introduced in fifteen minutes without any returning. The passage of the water through the longer tube and with the more elevated funnel took place much more rapidly, and in order to prevent the too rapid distension of the intestine, the fluid was only poured into the funnel gradually, while the stream was often interrupted by compression of the tube. The more rapidly the fluid is introduced, the more rapidly will it flow out again; but three or four litres of warm water, very carefully and slowly introduced, are retained by many patients for more than three hours; in others its discharge takes place at once, but the inconveniences produced by the distension of the intestine then soon disappear. In no case has any abiding ill effect occurred; and the most obstinate constipations which have resisted all internal and external means have frequently been relieved.

In all cases in which he has thus introduced from three to four litres of warm water, while the patient has been lying on his back, Professor Mosler has been able to convince himself that the ileo-cæcal region—which, prior to the injection, yielded a tympanitic resonance—then gave a decidedly dull sound on percussion, so that he and his colleagues felt able to conclude that the water had reached the cæcum. He tried many experiments with coloured water on the dead body, but these yielded no results, for, owing to the absence of tone, the intestinal canal is able to take in a less quantity of fluid after death than during life. A discussion on the subject took place at the late scientific meeting at Wiesbaden, where many denied the possibility of this penetration of fluid unaided by the pump. However, the matter was soon tested effectually in a case of fæcal fistula in Professor Simon's clinic at Heidelberg. The sac of the cæcum and the valvula Bauhini could be plainly felt by the finger. When a litre and a half of warm water was allowed to pass from an irrigator raised two feet in height (the patient being on his back), so quickly did it pass through the large intestine that in two minutes it streamed out of the fistula, the patient suffering no inconvenience. A tube, about two feet in length, and Hegar's glass funnel constitute the simplest apparatus, costing, with a cock attached to the tube to regulate the flow, only three or four shillings.

Among the indications for the employment of this means are—1. The removal of various forms of intestinal obstruction, especially when due to retained fæcal masses. Numerous examples of the striking success with which these are detached after resisting various other means are cited; and stercoral colitis and typhlitis are in the same way prevented or relieved. 2. Professor Simon is of opinion that in internal strangulated hernia—in hernia retro-peritonealis and diaphragmatica, and indeed in the early stages of all hernias—this means is often highly useful. 3. In many affections of the large intestine, and especially dysentery, it is of great value,—enabling us to thoroughly and frequently wash out the gut and inject astringent and antiseptic remedies. 4. In intestinal hæmorrhage, the careful introduction of iced water is well worthy of

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attention. 5. Various forms of icterus—especially the catarrhal and cholelithiasis, affections often attended by vomiting which precludes the use of medicines—may be benefited by large injections of water, which stimulate the secretion of bile, and favour the expulsion of catarrhal accumulations and gall-stones. 6. In helminthiasis also these injections are of use, assisting, when combined with warm milk, in dislodging tænia, and in bringing away the oxyuris vermicularis which may occupy not merely the rectum, but the entire tract of large intestine.

The paucity of prizes at the disposal of the medical and scientific institutions in this country, as compared with France, has often been the subject of invidious comparison; but judging from the results that have been the consequence of this greater liberality, it is very doubtful whether the contributions of the generous in this direction should be encouraged. Certainly, if numbers and large money-value are possessed of creative power, the French prizes should be very productive, for they are both numerous and considerable; but if anyone will take the pains to go through the reports of the numerous committees, which are delivered year by year, they will find that these are very seldom favourable to the competitors, and often exhibit on their part most woful deficiencies. These reports themselves, coming as they do from the pens of very able men, are frequently highly interesting and instructive documents, and it has often surprised us to find so much power and elaboration expended upon sometimes very worthless objects. At all events, we should be sorry to find the valuable time of our own *savants* so taxed for such a purpose. The prizes are divisible into two classes—those which are awarded for essays in reply to specific questions, and those which are given for work done, irrespective of any such bespeaking its production. The latter of these—when employed for rewarding the authors of good and useful books—have their utility, although their adjudication is not without its difficulties, and by reason of the abundance of means has sometimes seemed somewhat profuse. The prize questions are not infrequently determined by the testators themselves, and, as might be expected, are not always of a very reasonable character, so that large funds are accumulating from the impossibility of awarding them, as in the Breant legacy of 100,000 fr. for a discovery of a cure for cholera, the Barbier prize for the cure of incurable diseases, etc. However, one of these testators, the Marquis d'Ourches, wishing to stimulate academic torpor, or foreseeing the unlikelihood of the solution he sought being attained, willed that if the 20,000 fr. he offered were not adjudged within five years, they should revert to his estate. The object of the prize was the discovery of a certain sign of death so simple and easy in its character and application as to be available by poor ignorant villagers. Five thousand francs were also offered for the invention of any new means, or improvement in old, for recognising real death. However, plenty of persons seem to have thought the problem soluble, for 200 memoirs were sent in, and M. Devergie recently read to the Academy of Medicine an admirable and elaborate report on these, announcing the lapse of the legacy by reason of the non-discovery of any means that would teach an ignorant villager how to distinguish between real and apparent death. As M. Colin remarked, the Marquis would have acted more sensibly in demanding the signs of apparent rather than of real death—though the result would have been the same. M. Devergie's report constitutes a valuable summary of all that is known at present on this subject, which, indeed, is of greater importance in France, where interment takes place so much sooner than with ourselves. He also states that although the French law requires personal verification of the fact of death, yet in 25,000 communes no such verification takes place; and he demands that no diploma shall in future be granted without the candidate having proved himself practically conversant with the signs of death.

Dr. Katholitzky, of Rossitz, in Moravia, relates in the *Wiener Med. Zeitung* for November 11 a remarkable case of tearing of the entire right upper extremity from the body through mechanical violence, which has many points of resemblance with the case of the miller related by Cheselden.

J. S., a mason, 37 years of age, and in good health, while engaged working on a scaffold in a shaft many feet below the surface, was (May 21, 1871) caught by a heavy water-cask which was being raised by steam-power, and rapidly carried above a yard upwards, when, his shoulder coming in contact with a beam, he was thrown to the other side of the scaffold. When his comrades came to his assistance they found that his right arm was missing, it having fallen into the water at the bottom of the shaft. Dr. Katholitzky found when he was brought to the hospital that the whole of the right arm, including the shoulder-blade, had been torn from the body. There was very little bleeding. The wound measured thirty-one centimetres in the longitudinal and twenty-three in the transverse direction, the acromial end of the clavicle, covered with the skin, projecting prominently upwards. After careful cleansing of the surface, no pulsating or bleeding vessel could be discovered. The pulse was eighty and very feeble, and the subclavian artery could scarcely be felt above the clavicle. In the scapular region there was a deep saccular depression, in which the spinal processes of the vertebræ could be felt, a large flap of skin hanging down from its anterior edge. At the upper and anterior part were especially observed torn muscular fibres and nervous trunks, the least contact with the nervous plexuses giving great pain. The patient stated that the whole wounded surface burned like fire. As no hæmorrhage existed, it was resolved to collect all the fragments into the cavity under the clavicle, and to render the wounded surface as small as possible by bringing its edges together by means of four steel pins, five centimetres in length. There remained an irregularly triangular wound of the size of a small adult hand, over which compresses of charpie were laid, and iced water kept constantly applied. Six hours after the injury the pain continued dreadful, and morphia injections were resorted to. Pain, indeed, long continued a distressing feature of the case. We need not pursue the details of its vicissitudes and treatment. No secondary hæmorrhage ever occurred. By the twenty-fifth day the wound had contracted into an oval, seven centimetres long and three in breadth, and the patient was then thriving, and able to walk out. Two years and five months after his disaster, when presented to the Vienna Medical Society, he still exhibited, as he did soon after the closure of the wound, a scoliosis of the right side, due to the removal of the balancing power by the loss of the limb. The limb itself was found in the water of the shaft 113 days after the accident. Almost all the muscles were torn near their insertion, and the under surface of the scapula was denuded.

USE OF CHLORAL HYDRATE IN GONORRHŒA.—Dr. Parona has made an extended trial of chloral as an injection, both in the gonorrhœa of men and in vaginal blenorrhagia, and speaks of its value as a sedative and also as an astringent. He first tried it in 1870. The strength of the injection is one gramme or one gramme and a half of chloral to 100 grammes of water. A 2 per cent. solution is too irritating, and is rarely tolerated. The injection is used three times a day, and retained as long as possible. The best time to commence it is when the acute symptoms are subsiding, and it then not only relieves the pain and distress on passing water, but also removes the discharge.—*Giornale della Malathi Ven. e della Pelle*, October, p. 283.

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AUTOBIOGRAPHICAL RECOLLECTIONS OF THE PROFESSION.

No. XXXI.

By J. F. CLARKE, M.R.C.S.

For nearly forty years on the Editorial Staff of the "Lancet."

A CASE OF DIVORCE.

Separation of the "United Hospitals of Guy's and St. Thomas's"—Assault and Riot—Exciting Scene in a Police Court.

In 1836, a feud which had existed for some years between the "United Hospitals of Guy's and St. Thomas's" came to a termination, in a manner which at the time caused great excitement, and was attended by circumstances of an unusual character. It had been acknowledged and acted upon until very lately before the above period, that the rights and privileges of the students of both hospitals were identical. The right was conceded to both, of being present at all operations, and the house-surgeons and dressers were admitted to the area of the theatre to the fullest possible extent. Some jealousy had, no doubt, existed for some time, but no obstruction had been offered by the officials to the course pursued. Then came the very indiscreet act upon the part of one of the surgeons of St. Thomas's, of making the Guy's men show their "tickets" before entering the operating theatre. This naturally gave rise to some ill-feeling, but was acquiesced in by the men of Guy's good-humouredly and generally and readily. Anyone, however, who took the trouble to observe carefully how circumstances stood, could not fail to detect an undercurrent of dissatisfaction. It is remarkable, perhaps, that considering the enmity which existed between the teachers of Guy's and the lecturers of the Webb-street School, the students at both these institutions made common cause against the authorities of St. Thomas's. Well, the dissatisfaction culminated on Friday, December 16, 1836. On that day—the day for operations at St. Thomas's—a notice was posted that lithotomy would be performed on three patients at the usual hour. The novelty of so many cases of stone to be thus treated drew a large number of pupils to the theatre. Anticipating that the assemblage would fill the place, some boards announcing that none but pupils of the Hospital would be admitted were exhibited outside. Some offensive proceedings on the part of the porters, in attempting to exclude students who were thought not to belong to the Hospital, had on a previous occasion led some pupils to remove these notices, and on the present occasion, therefore, the porters demanded to see the "tickets" of the students, and said they were to "hump" all those who did not exhibit them. The tickets, however, were so large and so inconvenient for the pocket that few pupils could carry them always about with them to be ready for emergencies of this kind, and on this occasion several students, having come from distant lodgings, had not, it appears, seen the notice, and had not brought the means of admission. These gentlemen were accordingly "humped," having first been interrogated respecting the tickets, in what they deemed to be an insolent manner, and in many instances pulled back with violent and unbecoming gestures on advancing to the entrance of the theatre.

In the course of the assembling two dressers from Guy's Hospital entered the theatre, and were standing in the area, when the porter came up, and demanded to see their tickets. They were produced, when the porter, seeing that they were from the Guy's side of the way, in a loud and insulting tone of voice, it is said, ordered them to remove back from their position. This direction was met with a reply that they had a right to remain where they then stood, and that the porter's interference was impertinent; whereupon that official sprang at one of the dressers, seized the collar of his coat, and began to drag him out of the theatre. Already much incensed by the opposition offered to their entrance, a number of the Guy's and Grainger's students, witnessing the proceeding, came to the rescue of the dresser, whereat the porter drew forth a constable's staff, announcing that the steward had ordered that none but St. Thomas's dressers should stand within the circle, and showed symptoms of forcibly using his truncheon. Other porters and policemen interfered, and a serious conflict ensued between these on the one side and the students on the other, when many hard blows were exchanged; but the rescue party proved successful, when the police, finding their troop overpowered, sent for a fresh supply. But for this, so great was the indignation of the friends of the dresser, both porters and officials would have suffered severely. One of the surgeons of St. Thomas's assumed the chief command of the police, encouraging them to exertion, and pointing out which students were to be most rigorously subjected to the powers of the law there or at Union Hall at the close of the battle. The additional force cleared the theatre. No surgical operations, of course, were performed. The surgeon in command, in high military voice, called on the St. Thomas's men to assemble in the central square of the hospital, the Guy's and Grainger's troops being collected in the outer square. The conflict, however, was not quite over, as it took some time for the feeling to subside; but after the door of the theatre was smashed, and some other parts were damaged, the police succeeded in clearing the premises from the enemy. It was said that only one St. Thomas's student took part in the affray; but that gentlemen's threat to "dash out the brains" of anyone who should dare to oppose the porters, was prevented from execution by a stalwart pinning of his arms from behind by one of the bystanders.

It is due to the police to state that when incited by someone in authority to act "decisively," they acted with great caution and forbearance, replying to one of the surgeons of St. Thomas's that "they had no orders from their inspector to use violence." Had it been otherwise, a very serious conflict indeed would have ensued. Summonses were immediately issued against two of the students said to be ringleaders in the "riot." At a meeting of the students of Guy's and Grainger's the next day, it was resolved to defend their fellow-students from any legal consequences to which they might be subjected, and a subscription was entered into at once to defray all expenses that might be incurred. It was also resolved unanimously to carry out the investigation before the magistrate by all the evidence they could produce.

Summonses were taken out on both sides: two of the students summoned the porter for assault, and the porter summoned the two students for assaulting him whilst in the execution of his duty. The two most celebrated criminal lawyers of the day were retained—Mr. Adolphus for the surgeons and porters of St. Thomas's Hospital, and Mr. Charles Phillips for the students. It may well be supposed that the greatest excitement prevailed on the occasion. I had to report the proceedings; and feeling certain that the court would be crowded as soon as the doors were open, I arrived some time before ten o'clock, but found it impracticable to get an entrance, from the crowd of students assembled. Fortunately I was acquainted with the late James Haines, then, and for many years before, the able and impartial reporter for the *Times*. Accordingly, I went round to the magistrate's door, and Haines kindly gave me a seat by his side on the bench. The scene that presented itself was one of the wildest excitement. The court was literally crammed with students. Mr. Adolphus, who was always an irritable and excited advocate, on this occasion was more than usually excited and irritable. He opened the case against the students in a speech of more than usual acrimony. He charged them with assault and riot, and his remarks were peculiarly offensive and personal. The magistrate, Mr. Jeremy, remarked to Mr. Adolphus, "If these charges of *assault* and *riot* are mixed up together, we cannot come to a decision in the case. Is the charge for an assault or for a riot?" Mr. Phillips said that Mr. Adolphus had opened the case as one of assault and riot, and was permitted to go on with it in that form. Mr. Jeremy said that the question was one of great public interest, and could not be treated summarily, and that it would be more to the credit of those who were at fault to make an apology. If regulations were made they must be attended to. Mr. Phillips replied—"We say that regulations were enforced on this occasion, in opposition to right and custom." Evidence having been given on both sides, the porter was acquitted on the ground that he was merely performing his duty; whilst the students were committed for trial for "assault and riot" to the sessions. It is probable that in no court of justice a wilder scene of excitement ever occurred. The rival advocates were cheered to the echo, or vehemently hissed, as the one supported and the other attacked the students. The efforts of the ushers to maintain order were futile. The students were admitted to bail, and on the magistrate inquiring whether

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bail was forthcoming, Mr. Callaway rose from his seat on the bench and said, "I will be bail." The applause which succeeded this announcement was almost beyond description. The students appeared at the sessions, were found guilty, and entered into recognizances to come up for judgment when called upon. However, this they were never required to do.

The hospitals from this time became quite disunited. It was a long time before angry feelings were quelled.

LETTERS FROM MADRAS.

No. VII.

THE MEDICAL INSTITUTIONS: THE GENERAL HOSPITAL AND MEDICAL COLLEGE — CLINICAL INSTRUCTION — PARASITIC DISEASES: GUINEA-WORM; LUMBRICI; ITCH IN GOOD SOCIETY.

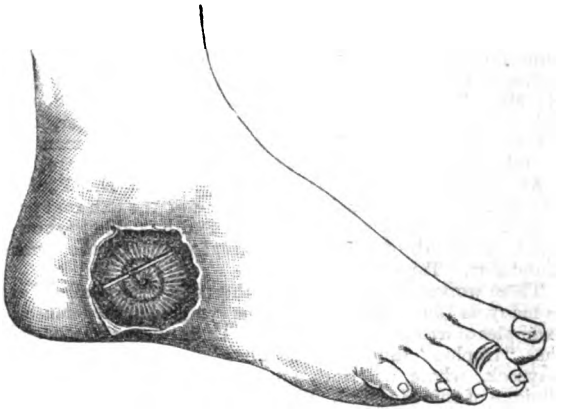
MADRAS, being the capital of a Government ruling over thirty millions of people, is furnished, as a capital should be, with abundance of institutions for education, charity, and science. Foremost amongst these is the Medical College and General Hospital, in the wards of which I passed many morning hours with pleasure and profit. As for a "guide-book" description of it, I shall not attempt it, nor bore your readers with statistics. Suffice it to say that there are three large parallel blocks of one storey high, connected by transverse buildings. One wing is devoted to the military, at present under the care of Dr. Lougheed, of the Royal Native Bengal Fusiliers. The civil portion has beds for 116 male Hindoos and Mahommedans on the ground-floor, and the same number of Europeans and East Indians on the storey over. There are a few rooms for officers and other private patients, and bamboo sheds in the garden for contagious and offensive patients. There are about sixty or eighty pupils in attendance, in three classes—first, independent pupils, going through a regular course with a view to graduation; secondly, the apothecaries, who are largely employed in civil and military service; and thirdly, hospital assistants and dressers, chiefly natives, who all know English and receive instruction in it. The second and third classes of pupils are Government servants, under military discipline, and receive a small stipend. Altogether the General Hospital contains the threefold elements of an abundant supply of interesting cases, of methods of treatment characterised by definiteness and energy, and of a system of clinical instruction of the highest order. Every patient admitted is under the charge of some one of the senior students, who investigates the symptoms and writes the history. At the next visit of the physician or surgeon this history is read and compared with the facts then visible, and the pupil reporter is invited to give his diagnosis and treatment. Nothing can be better adapted to train men for actual life. I was particularly struck with an observation which fell from Dr. George Smith, the physician and director of the Hospital, to the effect that, in training the hospital assistants, he eschewed a multitude of remedies of doubtful efficacy, and accustomed them to the use of the most powerful and direct drugs in definite doses. Thus such a remedy as henbane was little used; but if sleep were really wanted, or pain was to be allayed, opium or chloral hydrate; and so of others. I am very grateful for many a morning hour passed in these wards, where the cases, the treatment, and the teaching were unfailing sources of interest.

I will now try to give your readers something like a sketch of what I saw of the diseases of the so-called "gorgeous" (but really poverty-stricken) "East."

In the year 1871 the Hospital received 1178 European and 1388 native in-patients; in 1872 no fewer than 1435 Europeans and 1933 natives. What was the cause of this sudden increase of 50 per cent.? The answer is easy: *the dengue*, from which, in 1872, no less than 350 Europeans and 596 natives were admitted. This will show the prevalence of the dengue, whilst the fact is noteworthy that only three Europeans and two natives died of it or with it.

As my attention was especially directed to things new and strange, and one of the first things in which I got a lesson was the Guinea-worm, I will speak of that first.

Here is a malady unknown in England, but so common here as to fill from 5 to 10 per cent. of the beds in the General Hospital. The first manifestation, and most usual one, is that represented in the adjoining cut, done from the life by Dr. Paul's orders, and given me as a memento of my first experience of the disease. The patient for some time has been complaining of pain and stiffness, most likely in or about the foot. The next thing is the appearance of a huge circular bleb or blister. Let us follow the surgeon as he cuts off the raised



Guinea-worm bleb just cut off.

cuticle all round its margin, giving issue to the sero-purulent fluid it contains. There will be seen protruding from a little hole in the centre of the denuded cutis one or more inches of the worm, of the size and colour of vermicelli or of a wax match. The surgeon now makes a small quill-like roll of adhesive plaster, rolls the worm round it, and gently draws as much as will come without risk of breaking; and this is repeated day after day, till at last the tail, which ends in a small hook, comes wriggling out, and the case is at an end. So far all is plain sailing. But there may be every variety, from a few days' confinement and rapid recovery, to a series of exhausting abscesses and death from tetanus.

1. As a first variety, let us suppose that the worm breaks. Then a subcutaneous abscess is almost sure to form a little higher up. When this is opened, a loop of the worm can most likely be got out on a probe, and so be extracted as before.

2. The worm may not form a bleb, but a subcutaneous abscess at once. Thus I saw two abscesses opened on the same day—one at the back of the thigh of a patient who was recovering from the operation for strangulated hernia; the bistoury unluckily cut off a loop of the worm, and the rest of the creature was left for the present. When the other abscess below the tendo Achillis was opened, out came a loop, and an entire worm followed, alive and wriggling, measuring twenty-nine inches.

3. The worm, if near the knee-joint, may excite a most ugly synovitis.

4. The worms may be more than one. There was a patient from whom nineteen had been extracted, and one was yet to come, indicated by thickening and cordiness over the hamstring. The first worm came in the toe, others followed about the ankles, calves, hips, and inside of the thighs. This patient was seven months in hospital, and had been in great danger from tetanus.

It is very evident that the worm comes from without, through the skin of some part that has been in contact with water or moist earth. Some time ago, the workmen in a gun-carriage factory at Madras were in the habit of wading a shallow stream to get to their work, and were much infested. When a bridge was built, the cases were much diminished. They are much more frequent in natives who go barefoot than in Europeans. Thus, of 745 cases of worm treated as in-and out-patients at the General Hospital in the last four years, fifty-four were in Europeans and 691 in natives. They are more frequent in any given part of the body in proportion to its exposure to wet—usually the feet, and higher in a decreasing scale of frequency. Water-carriers are said to have them in the back.

For the natural history of this worm I must refer to Dr. Cobbold, merely saying that it seems to have an indoor life and an outdoor life. In some form, which I know not, it enters the human skin, gets into the areolar tissue, and there grows to its normal dimensions of from one to six feet; then, in due

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season, it bores the skin, protrudes its head under the cuticle, raises the bleb, and comes bodily forth, or at least discharges the young filariæ, with which it seems to be charged in enormous numbers. These probably enter into another stage of existence outside, and then they or their offspring seek a congenial "host" to winter in. The young filariæ may create abscess, but do not develope in the cellular tissue till after a sojourn outside.

There is clearly a season with these creatures; for, in summing up, with the aid of Dr. Wright, the resident surgeon, the number of admissions for the several months in four years, I find the 745 cases distributed thus:—

Admitted.—January, 16; February, 13; March, 34; April, 73; May, 103; June, 115; July, 122; August, 109; September, 68; October, 53(a); November, 33(a); December, 18(a).

It is estimated that the worm spends about nine months in its human host from its first entry to its final discharge.

As in going round the surgical wards with Dr. Paul one was struck with the number of parasites of the external parts, so in the medical wards Dr. George Smith is able to show an equal abundance of cases of intestinal worms of the common round sort. Tapeworm is rare.

These worms are apt to collect themselves into balls of even so many as 150 in number, and the symptoms they cause are examples of irritation, direct and reflex, in every variety, and of that "trophic" influence which has been made known by Dr. Laycock, whose doctrines are well known in the medical clinique of this Hospital. Violent headaches, fever, palpitation of the heart, and local pains simulating visceral inflammation are common consequences. These are distinguished by suddenly migrating from one part of the abdomen to another. When these worms get into the œsophagus they may cause a peculiarly violent attack of epileptiform convulsions. Ulcers of the cornea may be remoter "trophic" effects. The treatment combines diagnosis and cure in one. Five grains of santonine are given at bedtime, and a dose of castor oil in the morning, and the worms, if any, are killed and expelled.

One morning I saw to my astonishment a couple of fellows in one of the verandahs operating on a patient by rubbing his back with brickbats, just as a bathbrick is rubbed on a knife-board. This I was informed was intended to remove all superfluous cuticle, and pave the way for the treatment of the itch, a malady which here is alike common and virulent. I have seen one medical functionary whose hands had become infected; and he was better off than his assistant, who was garnished with a chancre on each thumb. Amongst the poor classes, who neglect themselves and have no change of "cloth," such a malady as the itch may well be understood; but I confess I was astonished when one afternoon I happened to call on a learned professor who had a large class of young Brahmins before him receiving instruction in Sanskrit. Nothing, not even amongst the Scotch, can come up to the acuteness and disputatiousness of these young men, who are for the most part sons of clerks and Government officials, and are working with all their might to pass competitive examinations as steps to public appointments. To hear them discussing the nature of existence and defending their own Brahminical idolatries, and then to be made aware that one must be cautious in touching their books because so many have the itch, seems rather incongruous.

NOTES ON FOREIGN HOSPITALS AND SCHOOLS OF MEDICINE.

II.—Kiel.

Part I.—The University of Kiel.

Kiel has lately become a familiar name to the profession in this country, but that probably more by association and report than from actual personal acquaintance. It lies out of the ordinary track of professional tourists, and seems on this account to be but seldom visited by English physicians. But Kiel is well known to physiologists and pathologists as the former home of Panum and Cohnheim, and at present its name is in the mouth of everybody who knows that Esmarch, the bloodless operator, is surgeon to its hospital.

Kiel, after all, is not difficult to reach from England. It lies on the Baltic, it is true, but on the very nearest part of the coast to London. A railway journey of three hours, from Hamburg across the fertile fields and fresh open heaths of Holstein, brings one to the Kiel Fiord, or Bay of Kiel. Here the town is very picturesquely situated, in an undulating piece of country, which quite relieves the eye after the monotonous plain of northern Europe. Kiel is evidently in a flourishing condition. It is the seat of the local government of the Prussian province of Schleswig-Holstein, a busy seaport, and the chief war harbour of Germany. It is also the seat of an ancient and important university. And all this in spite of the terrible shock the town must have experienced in its political and social constitution, its trade, and its learning, when its nationality was forcibly changed from Danish to German some nine years ago. In the case of the University this revolution cannot have amounted to less than a complete reconstitution, and the beginning of a new life, whether for better or for worse. If it was Danish before 1864, there is no doubt it is German now. The Prussian Government is sufficiently wise to know the enormous importance of a properly constituted seat of learning in a province which was newly annexed and but doubtfully loyal. The names of more than one of the past and present professors testify that the reputation of Kiel as a German university was very soon successfully established. The Prussians found the University buildings in a wretched condition, and speedily set about replacing them by new ones. When the requisite contribution from the Municipality of Kiel—one-half of the necessary funds—was not forthcoming, a timely threat on the part of the Government to remove the seat of the University to Hamburg is said to have immediately brought the town to its senses. The result is that new buildings are at this moment in course of erection. The professional visitor to Kiel has, therefore, to see the old University, which is in a state of decay, and the foundations of the new buildings, which promise to be worthy of a second visit to the Baltic. The general hospital of the town has also to be inspected. These we will now briefly describe in succession, noticing especially the points which would seem to be most interesting to the English reader.

But first a short sketch must be given of the course of medical study in the University of Kiel. Speaking generally, this is the same as that adopted throughout the rest of Germany. We do not intend in this report to give a detailed account of medical education in that country, but, on the contrary, to note as briefly as possible the characteristic features of the the system, especially those without a knowledge of which such a report as the present would be in some respects unintelligible to English readers. The plan is simple enough. There are two sessions in the year, commencing at Easter and Michaelmas respectively—the summer session lasting four months, and the winter five. The student of medicine spends at least four years at classes, which he takes in any order he pleases. The plan, however, which is almost universally adopted is the following:—In the first two sessions lectures are attended on anatomy, comparative anatomy, zoology, botany, physics, chemistry, and physiology; while the men work in the dissecting-room in winter, and in the chemical laboratory in summer. In the third session, physiology, histology, and perhaps organic chemistry and pathology, are studied theoretically, and anatomical dissection begun. In the fourth, or second summer session, lessons are taken in practical physiology, and systematic lectures may be attended on general pathology, general therapeutics, medicine, and surgery. The student thereafter may go up for his first examination or *Tentamen*, in physics, botany, zoology, anatomy, physiology, and chemistry, or he may if he chooses postpone it; but two years at least must have elapsed before the examination is taken. During these two years of preliminary scientific education, the German medical student may be said never to enter the wards of a hospital. In following this plan, which is so markedly opposed to the more usual English one, the Germans are only carrying out the principle to which they strongly adhere—that the simple sciences must be learned before the applied, and that all sound practical work must be preceded, and not followed, by theoretical teaching. At the commencement of his third year, the student accordingly continues (or commences, as the case may be) his attendance on the systematic lectures in medicine, surgery, midwifery, and the other specialties, and visits the various clinics in the hospital for the first time. He studies forensic medicine and insanity in his last year.

The hospital work of the German medical student is not quite the same as that of the English. He attends regularly at the time of the surgeon's or physician's visit,—as a rule early in the morning. Different German professors have

(a) The last figures are corrected by allowing an average for 1873.

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different systems of imparting clinical instruction to their pupils, just as among ourselves. Some of them take an individual student over a case, entering into minute details—as for example Oppolzer once did, and Traube continues to do. Others give a lengthened and complete exposition of a particular case at the bedside, or in the clinical lecture-room, as Skoda at Vienna, and Frerichs at Berlin. Surgical professors, as a rule, meet the patients and students in the operating-theatre or clinic at a certain hour in the morning, and there operate and lecture at once. There is no regular system of dressers in the German hospitals, such as we have in London; *i.e.*, it is not compulsory for the student to dress for a certain number of months. There is an arrangement, however, at some of the medical schools by which the student enters his name as a *Practicant* or practical student. In this capacity he is permitted to watch and examine fully a certain number of medical patients in a session, and to write their cases for the professor. The professor criticises the written cases, and instructs the student at the same time in practical details. A certain number of the senior students are elected regularly as under-assistants in all the clinics.

Kiel, although an important university, cannot be called a large one. The whole number of students in the four faculties of theology, law, philosophy, and medicine does not at present exceed 160, and of these more than a third are students of medicine. Most of the men at the University are Schleswig-Holsteiners. Less than half of them come from the rest of Germany, and of these the greater number again are drawn from the neighbouring provinces—Oldenburg, Hanover, Brunswick, Bremen, Lübeck, and Westphalia. The Rhine Provinces send a certain small proportion—from Hesse-Nassau, Rhenish Prussia, etc. One chief reason for the choice of Kiel as a medical school is evidently the cogent one of small expense, for living must be comparatively cheap in this mercantile, non-fashionable northern town. There is, however, another attraction in Kiel—the fame of its professors, and at the present moment that especially of Bartels the physician, and of Esmarch the surgeon, at the hospital.

The University of Kiel, as it stands at present, is certainly one of the most remarkable buildings ever dignified with the title. It is a wretched brick house, with a cold, miserable, and forsaken aspect. It contains an aula decorated with the portraits of former professors, and five small class-rooms furnished in the roughest and most primitive style. Nothing is seen here of anatomy, physiology, chemistry, or pathology. These departments are located elsewhere through the town, some of them in the dwellings of the professors.

The anatomical department is at present accommodated in a large house in the Dänische Strasse, in the neighbourhood of the University. Here there are several rooms chiefly occupied with mounted anatomical preparations. The largest of all is a well-lighted back-room, which is used as a dissecting-room in winter and a laboratory for practical histology in summer. The whole is under the superintendence of Professor Kupffer, who is well known among German histologists as the author of some important papers on the relation of nerves to gland-cells, and on peculiar capsulated cells forming the commencement of the ducts in the salivary glands of some animals. Kupffer is also famous for his researches on the exact relations of the viscera by the freezing process. The museum contains many interesting specimens, especially a large collection of the human embryo and fœtus in the various stages of development.

In winter, the professor of anatomy delivers lectures and superintends the dissections according to the ordinary arrangements. In summer, as has been said, he holds a class of practical histology. Between the sessions he works privately at histological investigations with some of the more advanced students. Subjects for anatomical dissection are both abundant and cheap at Kiel: they are brought from Hamburg, and cost the professor about 3 thalers (9s.) a piece. The new anatomical buildings will comprise a lecture-room, dissecting-room, museum, and laboratory.

A walk of about a quarter of a mile has to be taken from the University before the Physiological Institute is reached. The institute has had an unsettled history, for it has been shifted about from house to house, and street to street, with the residence of the professor of physiology, until it has found a home in the old infirmary of the town. It will soon be once more dislodged from this into what promises to be a permanent location in the new University buildings. It would manifestly be unfair to examine or criticise with any minuteness the present physiological institute at Kiel. The place is confessedly only temporarily fitted up in the forsaken hospital, and any remark passed upon the arrangement ought to be one of admiration rather than the opposite. The approach is overgrown with grass; the house looks crumbling into decay; the doors and windows are deserted-like and uninviting; yet inside the rooms are stocked with elaborate physiological apparatus and chemicals, and in every corner there are traces of hard work and abundant provision for instruction. It is a curious link, this physiological institute at Kiel, between the old medicine and the new. In a series of small rooms arranged on either side of a long central passage, and apparently without the most ordinary arrangement for ventilation—where in the last generation disease must have been bred rather than destroyed, and patients killed rather than cured—are now arranged in due order, delicate apparatus for the study of nerve and muscle, for gas analysis, and for chemical experiment, models for teaching scientific optics and acoustics, and so on. There are two practical class-rooms in which the students may work, namely, a chemical laboratory and a room for experiments and histology. These are of no great size, but evidently sufficient for the present number of students—some twelve to eighteen. The professor of anatomy teaches practical histology systematically, as has been already remarked. The physiological institute was arranged by Professor Panum, now of Copenhagen, whose successor is Dr. Hensen. Hensen has done important work on the physiology of muscle, and can also claim for himself the credit of having discovered glycogen in the liver at the same time as Bernard. The physiological department in the new University buildings will not, we believe, be on the same extensive scale as the anatomical.

The very opposite has to be said about the suite of new Chemical rooms, which promises to be large. There are, in the meantime, two chemical laboratories at Kiel—one is the old laboratory in the Dänische Strasse, superintended by Professor Himly, and the other the new laboratory, in the Fleethörn, under the direction of Professor Ladenburg.

The other departments of natural science are not neglected at Kiel. There are—a Physical Institute, with Professor Karsten as director; a Zoological and a Mineralogical Museum, directed by Professors Möbius, Sadebeck, and Karsten; and a Botanical Garden, where Professor Nolte is superintendent.

From this rapid sketch it will be seen that the various departments of scientific study at Kiel are spread over the town. This is, of course, an objectionable arrangement, and will soon be replaced by a better. But even as it is, the town is so small that the students probably suffer but little loss of time in going from class to class.

In an early number we will describe the hospital at Kiel and the provisions for teaching pathology.

REVIEWS.

A Treatise on Gout, Rheumatism, and Rheumatic Gout. By Austin Meldon, Surgeon to the Jervis-street Hospital, Dublin, etc. Pp. 146. London: Longmans, Green, and Co. 1872.

A Treatise on Diseases of the Skin and its Appendages. By Austin Meldon, Surgeon to the Jervis-street Hospital, Dublin. Pp. 270. London: Longmans, Green, and Co. 1872.

We have bracketed these treatises out of consideration for their author, for no one who notes that they have been produced by one author in one and the same year will expect from them any new light, or suppose that they can merit any very high praise.

Mr. Meldon does not write on gout and rheumatism from mere book-knowledge; he has been an industrious clinical student and observer, and draws his conclusions concerning the nature of those diseases "from some five hundred cases" which he had observed and noted in hospital and private practice at home and abroad; but we do not feel able to compliment him on much success in his "sincere desire of adding to the pathology and treatment of gout and rheumatism." His statement of what he believes to be the true pathology of gout appears to us rather confused. He says—"The predisposing cause of gout is undoubtedly the presence in the blood of uric acid and soda in some form. Nerve force, I believe, when in a healthy condition, preserves these two in a fluid form, separately, in a state in which they may be eliminated

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by the kidneys, skin, or bowels. As soon, however, as this nervous influence is removed or lessened, these two unite"; and then you have gout. He combines Garrod's theory of excess of uric acid and soda in the blood and Aiken's theory of depressed nervous influence. But almost in the same breath he tells us that the blood may be loaded with *urates*, and yet there is no gout. "In Ireland," he says, "gout is one of the rarest affections met with in hospital practice, yet I have repeatedly found the blood of otherwise healthy men, lying in our accident ward, loaded with urates. For some years past my own blood has been in this condition, although I have never had the least symptom of the disease." Colchicum he believes to be a "nervous stimulant," especially in small doses, and hence its value in gout. "Against this medicine," he remarks, "there is a great, and perhaps unjust, prejudice. It is believed that though it relieves the attack for a time, it renders the system more liable to a speedy return of the disease. That this is an error I have no doubt." In his directions as to the proper regimen and diet for gouty patients, he strongly disapproves of the consumption of "a large quantity of alkaline water during dinner": there could be, he says, no greater error. "The acid of the gastric juice is much diminished by the use of alkalies. Fortunately, however, the artificial mineral waters contain very little free alkali; but even this little is highly injurious."

Mr. Meldon's pathology of rheumatism is very simple. "Here, then, in my judgment, lies the sole distinction between rheumatism and gout. The former is produced by depression of the nervous system, causing, or rather allowing, the crystallisation of lactic acid or some other chemical change in its composition, which converts that which was previously a harmless constituent of the blood into an agent of irritation to almost every part of the body, producing fever, pain, and copious sweating. The cause of this nervous depression is usually cold." And "the accumulation of lactic acid in the blood of those predisposed to rheumatism is dependent to a great extent, in my opinion, on the diminished cutaneous secretion for a considerable period before the disease appears"; while gout is caused by a diminution of nervous force, which allows of the union of uric acid and soda. We do not find that Mr. Meldon gives any *proof* whatever of the existence of an accumulation of lactic acid, or of a previous long-continued diminished cutaneous secretion. His treatment of acute rheumatism is "eclectic," in that he takes something from every plan of treatment, except, indeed, from the Gull and Suttonian: he clothes the patient in flannel, gives five grains of calomel with rhubarb pill; then the alkaline treatment, with colchicum, calumba, and gentian; and at the same time opium; and to the affected joints he applies moist heat, with tincture of opium. The diet is confined to arrowroot or rice, with beef-tea, chicken, or mutton-broth. And quinine is to be given very early. The effect is certainly surprising. "On the fourth day, when all acute symptoms have begun to subside, I usually order small doses (half a grain) of quinine three times a day, and increase the quantity of colchicum. Each day after the quinine is increased. In this way the disease is generally quite gone in from six to ten days; a few cases, however, are cured in much less time"! In cases of "thoracic complication," his treatment sounds "heroic," of the old style—leeches, cupping, blisters, and these kept open, and calomel and opium "administered rapidly, so as quickly to affect the system. Two grains of calomel and one-fourth of a grain of opium given every second hour, and a little mercurial ointment frequently rubbed into the thighs, will quickly have the desired effect." We cannot help wondering whether this is really Mr. Meldon's practice or only his theory of treatment. Chronic rheumatic arthritis is dismissed in seven pages. Here, again, we have nervous depression, with "the existence in the blood of abnormal quantities of salts of lime or the essentials for making such," whatever that may mean; and the treatment is to be "conducted on the principle of improving the condition of the blood."

Of Mr. Meldon's work on "Diseases of the Skin and its Appendages" we fear we cannot honestly say anything complimentary; except, indeed, that he is to be commended for not attempting any new classification of diseases of the skin, and that at the end of the volume he gives as an appendix the various classifications, from Mercurialis down to the present time. This is well and clearly done, and may, we should think, be really useful to students. But we can hardly admit the force of what we suppose has been the *raison d'être* of Mr. Meldon's work—viz., the great difficulty of obtaining "a book sufficiently simple to aid students in a study naturally difficult." Dr. T. W. Belcher's edition of Dr. J. Moore Neligan's "Treatise on Diseases of the Skin" is by no means of an alarming size; Mr. Erasmus Wilson's "Student's Book of Cutaneous Medicine" is small, and, we should think, plain and simple enough for any student; and then there are the still smaller works of the late Dr. Hillier and of Dr. Robert Liveing. We cannot pretend to much acquaintance with Irish students, but we suspect that had any English author written what Mr. Meldon has about them, it would have been wrathfully quoted as an English libel and an Irish grievance. "Many students have I known," he says, "who, anxious to acquire a thorough knowledge of these diseases, have purchased books on the subject, and commenced the study with youthful eagerness. Few, however, got beyond the chapter on classification. This appears to be to the medical student the *pons asinorum;* few indeed have I known to cross it. Amidst a string of classifications from the time of Plenck to that of Wilson, the book is closed and seldom again opened." We should have credited the anxious and eager student with taking the difficulty flying, like one of his own county stone walls, and going on. We are sorry that we do not feel able to say that this book will help the student over and through all his difficulties, though it has no classification; and we venture to believe that he would gain a more true, more scientific, fuller, and more useful knowledge of the pathology and treatment of diseases of the skin from any one of the small works we have mentioned than from this one by Mr. Meldon. His descriptions of the various diseases, their pathology and causes, diagnosis, prognosis, and treatment are too meagre to be of much real service, and he is at times vague and hazy. Thus, five pages only of his large-type book are given to tinea favosa, though, rather to our astonishment, he says it "is by far the most important disease affecting the scalp"; he "believes the disease to be contagious"—as if there was any doubt about it!—and says "epilation is sometimes necessary"; and, as is his wont, he gives at the end of the chapter on it a mere list of "other remedies which have been recommended," among which, we may remark, he does not mention Dr. J. H. Bennet's treatment by the external application of cod-liver oil. Tinea decalvans has three pages allotted to it, and its treatment, inclusive of "other remedies," occupies only eight lines. Apparently it is by no means difficult to cure in Ireland. And again, the very brief chapter on tinea tonsurans certainly would not give any idea of how obstinate the disease often is. Mr. Meldon is convinced that chloasma, or liver-spot, and pityriasis versicolor are "two distinct diseases," and then adds, "to which the parasite belongs I do not know, but it more probably belongs to that which is accompanied by desquamation—viz., pityriasis versicolor—it being generally supposed that the growth of the plant breaks up the epidermic scales." Seriously we must ask, Is this worthy of a teacher on disease of the skin? One page is given to the subject of condylomata, and the student is told that "the treatment consists in removal by means of ligature or caustic; the knife may likewise be used. The health must be improved and cleanliness enjoined." Has Mr. Meldon never heard of the treatment by calomel, locally applied? Speaking of elephantiasis of the Greeks, Mr. Meldon says, "the Asclepias gigantea is strongly recommended by Robinson. Quinine, iron, mercury, iodine, arsenic, cod-liver oil, bromine, bleeding, baths of various kinds, have all failed; but any one of these, in conjunction with good nutritious diet and wine, ought to be tried"!

Again we say we regret we cannot speak more favourably of this work, and of both Mr. Meldon's works; but we are sure that if Mr. Meldon will give himself time for more mental digestion, he can produce a book more worthy of his abilities, his industry, and his powers of observation. He has attempted too much, and written too hastily.

A Handbook of the Theory and Practice of Medicine. By Frederick T. Roberts, M.D., B.Sc., M.R.C.P., Fellow of University College, Assistant-Physician and Assistant Teacher of Clinical Medicine at University College Hospital, Assistant-Physician to Brompton Consumption Hospital, etc. London: Lewis. Pp. 1043.

In laying before the medical public a treatise on the theory and practice of medicine, Dr. Roberts can assuredly plead one good reason for so doing: such a book is really wanted. The available English treatises may be said to number three, and

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doubtless these three serve in a certain way to supplement each other. But, as Dr. Roberts tells us, his book is specially intended for students; and for students, above all, this process of making one book supplement another, even if time were available for the purpose, is full of risk and danger. There is risk of the supplementing ending in absolute confusion; for even to a well-trained practitioner the conflicting views of men in many ways eminent is sufficiently tantalising, to say nothing of the difficulties of estimating these at their right value. But to subject a student to such a necessity is both wrong and cruel. He has absolutely no means of estimating the relative value of conflicting views, and so he can only acquire that knowledge which is no knowledge—how Mr. So-and-so says this, and Dr. So-and-so says that. Now, undoubtedly Dr. Roberts' book will help to remedy this evil, but we question if it will altogether do away with it; for it seems to us that, in aiming at too much, the author has in a certain degree neutralised the undoubted excellences of the book. It is to our mind a serious question how far many of the subjects which used to be taught under the head of the principles or the theory of medicine should nowadays continue to be taught in the class of the practice of medicine, or be dealt with in a work on practice of medicine. For instance, let us take the various subjects dealt with in Section II. of Dr. Roberts' book. They are these—hyperæmia or congestion, dropsy, hæmorrhage, inflammation, hypertrophy, atrophy, degeneration, and fever or pyrexia. It seems to us that all of these would be better dealt with apart from practical medicine, the more especially seeing that pathology—to which these, strictly speaking, belong—is nowadays taught, and as a rule well taught, as a separate subject. The time is all too short, and the space all too narrow, for dealing aright with purely practical medicine, and anything savouring of what is not strictly practical had better be relegated elsewhere. We are the more inclined to regret this in the case of Dr. Roberts, as it is in the strictly clinical work that he shows to best advantage. Dr. Roberts has had splendid opportunities of making himself master of the art of studying—and of imparting to others this art—medicine practically and by the bedside; and it seems to us that many of the clinical details given in the present volume are of great value. It is therefore all the more to be regretted that, to keep within bounds as regards space, he should have been compelled to print many of these in small type; whilst the bulk of the volume could have been diminished, and, to our minds, it would have been materially improved, by the omission of many of the subjects handled in the earlier chapters.

In the next section actual disease is discussed, beginning with idiopathic fevers, including acute specific fevers and the acute exanthemata,—ushered in with some remarks on contagion and epidemics. This last, from our point of view, might have been dispensed with, and mere prominence given to a short chapter which follows on the use of the thermometer. This too is given in small type, though both here and elsewhere we have information of great value to the student given in this fashion. The second subdivision of this section is devoted to constitutional diseases. These are all described in the ordinary conventional fashion, without anything very striking either for good or for evil; but the account given may be taken as a good fair statement of general opinion, and as such is decidedly useful. The last chapter, dealing with cancer, would, as already indicated, have been, from our point of view, better omitted.

Local diseases are introduced by some account of the affections of the mouth and tongue, followed by affections of the salivary glands, including mumps, which Dr. Roberts prefers to consider in this connexion rather than as an acute specific malady—the view held by many. This, again, is followed by diseases of the throat, but neither in this connexion nor in the chapter which follows on maladies of the œsophagus do we find any reference to a disease which not unfrequently proves fatal if overlooked—viz., retro-pharyngeal abscess.

Next follows a chapter—again in small type—on the physical examination of the chest. This, to our mind, is exceedingly good, and it is in such-like work that the present volume seems to us to be likely to be of most service to the student. Teaching like this, or rather hints at teaching, are of the greatest value to the student at the bedside, and Dr. Roberts has taken care to give it every consideration. Dr. Roberts is undoubtedly a skilful clinical teacher, and many of the articles given here show this well; for instance, we have a full discussion of such symptoms as apnœa, cough, hæmoptysis, syncope, palpitation, vomiting, hæmatemesis, etc., which almost rise to the dignity of diseases. Now, there can be no doubt that in training students this plan of teaching is very useful. It is not perhaps the highest, nor even the best for advanced students, but for grounding men at the bedside it seems to us to be of great value, and Dr. Roberts has done well to make it a special feature of his book. Unfortunately it, too, has been relegated to the small type, together with what is even less justifiably so—viz., such subjects as asthma, angina pectoris, anæmia, pyæmia, thrombosis, indigestion, colic, jaundice, convulsions, paralysis, neuralgia, wasting palsy, paralysis agitans, cerebro-spinal meningitis, and the like. Moreover, there seems to be an increasing tendency to this towards the end of the book, as if the author dreaded its rapidly augmenting bulk. Whether it was wise under such circumstances to give a special chapter on diseases of the skin is questionable. Nowadays, these diseases are generally treated as a specialty, and it is hardly possible to do justice to them in a single chapter. Undoubtedly the sketch here given by Mr. John Tweedy is an able one, and shows much power of condensation, but at best it can only be an introduction to a larger treatise.

In conclusion, and with a due sense of the merits of Dr. Roberts' book, it appears to us that the author would have done much better by altering its system. It contains a vast deal of capital instruction for the student, and a good deal of valuable matter relating to the principles of medicine, which would have been better discussed elsewhere: to make room for these, the descriptions of disease have been somewhat cramped, especially towards the end of the book. But these are minor defects, and they easily admit of remedy in a subsequent edition. The volume has merit enough to insure its rapid sale, and when it comes to him for revisal, we would counsel Dr. Roberts to take our remarks, made with every feeling of kindness and respect, into consideration; for with a very little pruning here and addition there the book might be made a far better book for the student than it now is—which is saying a good deal, for, as already said, even now the book has very much to commend it.

Stories about Idiots. By W. A. F. Browne, late Commissioner in Lunacy in Scotland, etc. Circulated for benefit of Larbert School for Idiots. Published at the *Courier* Office by McDiarmid and Mitchell, Dumfries. 1873.

We have pleasure in directing the attention of our readers to this small pamphlet. Perhaps few persons south of the Tweed are aware of the amount of labour which Mr. Browne continues to bestow on philanthropic objects, especially in the endeavour to ameliorate the condition of the helpless idiot. Although he has been compelled, by failing sight, to resign his official appointment, his mental energy is unabated, and he still takes an active interest in scientific pursuits. It is not long since we heard of his delivering a lecture on anæsthesia, etc., to the students of Dr. Laycock's psychological class on their clinical visit to the Crediton Institution.

It is gratifying to find such an example of disinterested devotion to the cause of humanity. He has published this collection of stories for the benefit of the Larbert School for Idiots. These tales are deeply interesting in themselves, and are written with much elegance and pathos. There is no attempt to work up the sympathies of the reader by a miserable detail of horrors and sufferings, but enough is said to engage the attention and even to rivet it as entirely as a modern sensational novel.

Whoever purchases this little book will not only receive pleasure from its contents, but will also have the satisfaction of knowing that he is contributing to the funds of a most valuable institution.

The Midleton Board of Guardians have granted Dr. Walsh, late Medical Officer for the Midleton No. 1 Dispensary District, a superannuation allowance of two-thirds of his salary.

We understand that the last edition of Dr. Tilbury Fox's work "On Skin Diseases" has been reproduced in America and Italy—the American edition under the editorship of Dr. Henry, the editor of the *American Journal of Dermatology;* the Italian under that of Dr. Anton Longhi, and as one of the series of medical works forming the "Biblioteca Medica Contemporanea," issued from the establishment of the well-known medical publisher, Vollardi, of Milan. The fact of these two editions appearing abroad may fairly be taken as a compliment to English dermatology.

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OBITUARY.

FRANCIS CORNELIUS WEBB, M.D., F.R.C.P.

No more painful task than that which is now before us could possibly fall to our lot. We feel, indeed, as if it were impossible we could perform the duty we are called upon to perform; as if it were incredible such a duty were laid upon us as to announce that Dr. Francis Cornelius Webb, the Editor of this journal, is away from us and from it for ever. Yet the sad fact has to be told. Our editor-in-chief is no more. He had finished his editorial work for the closing year of 1873; he had sketched out for the next year some few thoughtful and wise projects; and he has ceased to labour.

Dr. Webb was born at Hoxton, on the 9th of April, 1826. He went first as a scholar to King's College School, but on the removal of his family to Devonshire he passed to the Grammar School at Devonport. His mind bending to classical pursuits, he carried on his boy-studies with singular profit and advantage, and laid a foundation of learning that was worthy of any professional life. He was, we had almost said, by nature a classic; he retained his love and reverence for classical knowledge during the whole of his career, and lived much with those whom, in their silent greatness, it is so precious a privilege to know intimately—the living masters of knowledge who are called the dead.

His school days over, Dr. Webb was apprenticed as a surgeon to Dr. J. Shepherd, of Stonehouse, Plymouth, with whom he passed, according to the good old practice, the probationary term of professional life, learning to dispense medicines, performing simple operations, and gleaning a notion or two of the art of prescribing for the sick. We have at times gathered from his conversation that he prized this simple but useful learning at its full value. It is a learning our modern student, unhappily for himself, knows little about; to our friend it was ever felt to have been an advantage—a groundwork he would not willingly, in a revised life, have forsaken. From Stonehouse he came to London, in the year 1843; he joined the Medical School of University College, where he soon made himself felt as an industrious and distinguished student. During his first year he took two certificates of honour, one in anatomy, and one in anatomy and physiology. In 1844-45 he took the first silver medal in anatomy and physiology, and the first silver medal in botany; in 1845-46 the first silver medal in medicine; in 1846-47 the first silver medal in surgery, and the gold medal in midwifery. In 1847 he acted as dresser to Liston, and as clinical clerk to Dr. Taylor; and in the same year he passed his examination at the Royal College of Surgeons, and was enrolled a member of that corporation.

Admitted into the profession, Dr. Webb went to Leicester, where he acted as assistant to Mr. Bowmar, living with that most esteemed practitioner of medicine for the period of three years, and adding largely to his own practical knowledge. In 1849-50 he proceeded to Edinburgh, and graduated in the University of Edinburgh in 1850. In 1851 he returned to town, and took up the licence of the Apothecaries' Company, of which Company he subsequently became a member, and was twice elected one of the staff of examiners.

On completing his examinations, Dr. Webb at once settled in London, in Great Coram-street, Russell-square. He purchased here a general practice, and for a long time continued to carry out the work of general practice with his usual zeal and fidelity. Few men ever won the love and trust of his patients more sincerely. In the next year (1852) he married Miss Croucher, an union rendered ever happy by the mutual love that sustained it.

The first public medical appointment held by Dr. Webb was that of Physician to the Islington Dispensary. Afterwards he became Physician to the Margaret-street Dispensary for Consumption; and later still Physician to the Great Northern Hospital, and to the London Diocesan Home. He gave up general practice, and joined the Royal College of Physicians as a member in 1859. His election to the Fellowship of his College occurred only so lately as 1873, and was greeted by all as a recognition never more worthily bestowed by that learned and ancient body.

The events we have noted refer to the practical medical life of our late beloved friend; but there are other phases in which he stands prominently before us. In 1857-58 he became a teacher of medical science, by his election as Lecturer on Medical Jurisprudence, in the old Grosvenor-place School of Medicine, founded originally by Mr. Lane as the St. George's School of Anatomy and Medicine, and the last of the private schools in London. He commenced his new work with enthusiasm, and carried it out with a steadiness of purpose and a practical method which were equally valued by his students and his colleagues. To the minutest details he devoted his attention; he recast his own chemistry, that he might experimentally demonstrate the detection of poisons by analysis, and he never left an experiment until it was perfected to the satisfaction of all who were present. His style as a lecturer was simple, slow, clear, and precise; above all, it was earnest, and whatever faults it had—and they were indeed very few—arose from his nervous anxiety to do the best, and to be equal with his more practised compeers as a teacher.

In the year 1861 the Faculty of the School unanimously voted that Dr. Webb should be invited to deliver the introductory lecture at the opening of the session 1861-62. He undertook the task with a modest pleasure, and chose for the subject of his discourse—"The Study of Medicine: its Dignity and Rewards." The lecture was received with the warmest acclamation, and the students of the School testified their appreciation by anticipating the lecturers in the request that the lecture should be published in a separate form—a request that was unassumingly granted. The lecture throughout was marked by a quiet, impressive energy, and the peroration—signally significant of its author's purity of soul and exalted ideal of medical science and art—will, by its simple repetition, illustrate his whole nature better than any word or thought of ours. It was thus he spoke:—

"The responsibilities of medicine are only equalled by its dignity. Never for one moment of your career lose sight of the intrinsic value of each human being—man, woman, or child—who applies to you for assistance. Your lot may be cast in the crowded hives of human industry, or you may minister to the defenders of your country by sea or land; it may be your destiny to stand before nobles and the rulers of the earth, or in lowly workhouse or hospital-ward, to pursue your beneficent calling. Still, in all places, and under all circumstances, remember the dignity and responsibilities you, by your profession, have inherited. I tell you not of material preferment—of titles, rank, or fortune. *Dat Galenus opes* is a maxim the truth of which is of limited application in the present day. But I tell you of higher rewards: I tell you of the pleasure of investigating the material universe, wresting from it its secrets, and compelling it to yield them to the service of your race. I tell you of the high enjoyment you will receive from analysing the thoughts of the Supreme and by comprehending them—drawing closer the chords of love and reverence which should ever bind the finite to the infinite. I tell you of the purest enjoyment of which our nature is capable—of the enjoyment of alleviating human suffering and pain, of soothing the pangs of infancy, and healing the wounds which manhood receives in its ceaseless contest with external circumstances. I tell you of the happiness derived from the gratitude of your fellow-men—the blessing that shall reach you from the prayer of him that was ready to perish. I tell you of the enjoyment to be obtained from a life of noble toil and stalwart industry. And, higher recompense still, I tell you that, pursuing medicine with the aims and intention I have endeavoured to pourtray, with a just conception of the dignity of your calling, and the responsibilities it entails, ever amid your days of toil and nights of anxiety, a voice, still and small as that which reached the seer of old amid the rocky fastnesses of the Syrian mountain cave, shall whisper to your inmost consciousness, 'Forasmuch as ye have done it unto the least of these little ones, ye have done it unto Me.'"

The success of Dr. Webb as a lecturer in a school of medicine led to his election to another educational employment. The institution founded some years ago by an energetic section of the profession of dentistry, called the College of Dentists, endeavoured to secure not only a separate corporate body of Dentists, but to found a school for the education of Dentists. The school was called the Metropolitan School of

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Dental Science: it was conducted in Cavendish-square, in some excellent rooms adjoining the Royal Polytechnic Institution, and its lecturers taught respectively—anatomy and physiology, dental surgery, dental mechanics, chemistry, and comparative anatomy, including specially the natural history of the teeth. To the lectureship on natural history Dr. Webb in time was elected, and again he devoted himself to the work with undiminished energy. His well-stored mind furnished him with the resources demanded by his task, and in an incredibly short space of time he was teaching natural history as ably as he had already taught forensic medicine. It was by no intuition, however, he accomplished so much and such varied labour; it was by no special gift of memory or of eloquence, it was by sheer hard work, by firm conscientious determination that whatever he put forth his hand to do, he would do it with all his might. The career of Dr. Webb as a public teacher was short. Both the schools with which he was connected closed a few years after he joined them, and he never joined another. He was one of those many able and neglected teachers who, for want of introduction, or from some other unlucky cause, are lost to the world from spheres where they would be most useful if fortune more serenely dealt with them.

The career of Dr. Webb as a writer commenced about the year 1857, his first important literary effort being an article on "The Sweating Sickness in England," published in the *Sanitary Review and Journal of Public Health* for the month of July of that year, and afterwards republished in a separate form. This article at once stamped its author as a writer of singular learning and of excellent art and judgment in the order of descriptive literature. The manuscript of this essay, written clear as printed matter, was all an editor could desire; no words too many nor too few; not a sentence involved; not an idea that could fail to be at once understood. In press it required scarcely a correction, and it remains a masterpiece of English medical historical writing. Defoe could not have told the story of the great pestilence, the *Sudor Britannicus*, more effectively; Gibbon could not have marshalled the historical facts more forcibly. We could wish—we have often wished—that its author, when the powers of his intellect for historical research and description were so clearly discovered, could have become the professed historian. He would have added many a brillant historical page to the letters of our country. The history of the sweating sickness was soon followed by another kindred essay, entitled "An Historical Account of Gaol Fever." This essay was read before the Epidemiological Society on Monday, July 6, 1857, and excited great interest. The translator of Hecker's "Epidemics of the Middle Ages," Dr. Benjamin Guy Babington, occupied the chair on this occasion, and in felicitous language commended not only the style but the matter of the paper. It was, he said, a new pattern in this day, which might, for the credit of English scholarship, be advantageously followed. The essay was printed in the *Transactions* of the Society. In 1858 an essay on Metropolitan Hygiene of the Past was written by Dr. Webb for the *Sanitary Review*. It was published in that journal in the January number, and was afterwards reprinted. It is a brief and a masterly survey of the sanitary condition of London from the time of the Norman Conquest until our own era.

Following upon these efforts there came from the pen of our deceased friend a review of papers relating to the death-rate of England, of Moquin Tandon's "Elements of Medical Zoology," and of the "Teeth in Man and the Anthropoid Apes," in which the various publications on that subject, by Professor Owen, are carefully and philosophically considered. To the last review was added an essay "On the Teeth in the Varieties of Man," in which the author, while he claims no credit for original discovery, affirms a view he ever through his life earnestly sustained. He will be content, he says, with the results of his work if it leave on the minds of his readers that which the necessary investigation has produced on his own—viz., that a study of human dentition affords an argument of the highest scientific value in favour of the declaration which eighteen hundred years ago reproved the national assumption of the self-styled Autochthones of Athens—"God that made the world, and all things therein, hath made of one blood all the nations of men for to dwell on all the face of the earth."

The connexion of Dr. Webb with the Metropolitan School of Dental Science led him to contribute to a journal called the *Dental Review*, which journal was, for the time it lasted, the organ of those who wished to raise the profession of Dentistry into an independent and powerful professional and chartered body. In the *Review* was republished, at the suggestion of another contributor to its pages, the great work of John Hunter on the teeth, with notes appended to the text bearing on modern research in relation to the same subject. The notes appended to the first part of this undertaking were contributed by Dr. Webb, the notes to the second part by Mr. Hulme. The design of Dr. Webb in his part of the labour was no less than to bring the work of John Hunter, by additions to it in due place and form, up to the point of knowledge of the present day. In this effort, in which there is but one ambition—viz., to exalt the master and show him as the founder of the science under review—a success that could only have been attained by so competent and faithful a commentator, was simply perfected.

A few years later on, and Dr. Webb, entering in true professional spirit the serried ranks of men of letters, became one of the Editors of this journal. For many years he was sub-editor; for the last years he has been editor-in-chief. The letter of the editorial work remains, and we are satisfied that the spirit which animated it, and which was largely his, should bear its own history. But those of us who knew his work can now admire it the most. He wrote no line he could ever have wished to be erased; passed no judgment he could ever have desired to recall. "There are two things that come not back," said the great Caliph Omar, "the sped arrow and the spoken word." He is indeed happy who would not wish to recall either; and happy truly, therefore, is he who has gone from us. No arrow that could harm left his hand; no word he wrote or spoke needed to return to him for reconcealment. More keenly than any man we have known, he had it foremost in his mind to do justice, to love mercy, and to walk humbly before God.

We have already briefly stated that Dr. Webb was one of the Examiners of the Society of Apothecaries, and Physician to several public charities. In these positions of public trust he laboured but too lovingly, and for himself too well.

Apart from the professional life, Dr. Webb, like other cultivated physicians, was one of the most engaging of friends. A Fellow of the Society of Antiquaries and of the Linnæan Society, he delighted to steal away an hour in either place, and was ready, whenever he had leisure, to join in any learned or social pursuit that carried with it the sense of harmless pleasure. Music was to him an intense enjoyment. Too rarely he allowed himself, however, these useful relaxations: too severely for his own sake, he let repose sink in duty.

An accomplished practical physician, a scholar, a man of letters, a firm friend, he infused into his home, and displayed most richly there, all the virtues that so adorned his public life. It were yet too early, too painful, to tell—if it were really possible to tell—what a noble, gentle pattern of a life his was to all those who formed the mystical circle that we call home.

His death was terribly sudden. He had some time past suffered from bronchial disease and from feebleness of the heart; but for the last three years he had been better in health, though subject to occasional attacks of extreme feebleness after exertion, with passing symptoms of angina pectoris. On the evening of December 23 he came to the office of this journal, completed the last number, and having made a small present, and addressed a few kind words and good wishes to the managing printer, who had been associated with the journal in that position for eleven years, and who was now resigning his office, he returned home in company, part of the way, with his old friend and neighbour, Dr. Cholmeley. After reaching his home, on the occasion of some slight physical exertion, he complained of numbness in the left hand and arm, and to relieve the symptom went to the pianoforte, and played for nearly an hour. Later he wrote and read until past midnight; then he retired to bed, and with a returning pain in his chest, died all but instantaneously, and without a struggle.

From the Church of St. Mary-le-Strand, where during many years of his life he was wont devoutly to pray, the mortal part of our friend and brother was carried, on the last day of the past year, to Highgate Cemetery, and, amid the grief of relatives and friends—a grief too profound to be expressed,—was buried there from our mortal sight. Yet even now over his grave Hope arches her rainbow. We who knew him best know well that he was ready; and that, inspired with a holier and sublimer faith than Cicero possessed, he could with more joyful anticipation exclaim—"O præclarum diem, cùm ad illum divinum animorum concilium cœtumque proficiscar, cùmque ex hac turbâ et colluvione discedam!"

B. W. R.

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H. T. LOMAX, M.R.C.S.

We regret to have to record the death of Mr. H. T. Lomax, of Stafford, which happened suddenly, at his residence, on Thursday, under somewhat distressing circumstances. On his return from visiting some patients he was seized with a fit of coughing, which caused the rupture of a bloodvessel. Medical aid was at once sent for, but the unfortunate gentleman expired before it arrived. The deceased had practised in the town for a great number of years, having acquired a considerable portion of his medical education as assistant to the late Mr. John Masfen. In 1858 he served the office of mayor of the borough, and was subsequently elected an alderman. By his death a vacancy is occasioned among the members of the Town Council and in the commission of the peace for the borough, he having been appointed a magistrate many years since. Mr. Lomax had long and efficiently discharged the duties of surgeon to the Staffordshire constabulary, in which capacity it fell to his lot to examine all applicants for admission to the force, and those who sought pensions after long service. Formerly he was surgeon to the 2nd Staffordshire Militia, but on its permanent embodiment during the Crimean War his professional engagements compelled him to resign; about two years ago, however, he rejoined the regiment as assistant-surgeon. Deceased took much interest in the volunteer movement, and was connected with the force from its commencement, first as assistant-surgeon to the 25th Corps, and afterwards as surgeon to the 2nd Battalion Staffordshire Volunteers. For many years he rendered valuable services to the Staffordshire General Infirmary, especially on the occasion of the annual county ball on behalf of the funds of that institution. The governors a year or two since showed their appreciation of his abilities and services by electing him to the post of honorary surgeon. His death certainly leaves a blank in the town, and by the sick poor especially he will be much missed.

GENERAL CORRESPONDENCE.

THE CAUSATION OF DICROTISM OF THE PULSE.

Letter from Mr. F. A. Mahomed.

[To the Editor of the Medical Times and Gazette.]

Sir,—My attention has been called to a letter from Dr. Galabin in the *Medical Times and Gazette* of December 6, criticising my theory of the causation of dicrotism. I prefer to delay answering his objections more fully until a future occasion, when I shall have had the opportunity of carrying out further experimental observations with a view to a more complete settlement of this much-vexed question. In the meantime, I desire, with your permission, to make a few observations on Dr. Galabin's own theory, as stated by himself both in the *Medical Times and Gazette* and in the *Journal of Anatomy and Physiology*.

I cannot believe that the inertia of so light a structure as the wall of the aorta is sufficient to account for the production of so considerable a wave as the dicrotic; I should prefer to attribute it to the inertia of the blood itself. Dr. Galabin, in his paper in the *Journal of Anatomy and Physiology*, refers to the inertia of the blood, but appears to consider that it would affect its backward-and-forward motion only, and not produce any effect laterally on the walls of the aorta except through "that slight lateral motion of the particles which must take place in consequence of the expansion of the tube." He goes on, however, to state that "the effect of such acquired lateral velocity is generally regarded in mathematical investigations of similar waves as being too minute to have any appreciable effect."

To me it appears that the inertia of the blood comes into play with much greater effect than this, and in a somewhat different manner. Surely it will be conceded by all physiologists that the blood is not impelled through the aorta like fluid impelled directly in the axial line of a straight tube the diameter of which is equal throughout. On the contrary, at each contraction of the heart its contents are hurled directly against the side of the aorta, impinging against the upper part of the ascending aorta on its right side, and rather on the anterior surface—a point commonly pointed out by pathologists as the situation of the greatest strain, and, when its elasticity has been worn out, where dilatation almost invariably occurs. The sum of the inertia of the volume of blood thus thrown into the aorta and its velocity must be great; while acting, as I believe it does, directly on the aortic wall, its effects must be far more considerable than the inertia of the thin and light wall itself.

The increased expansion of the aortic wall produced by the combined inertia and velocity of the blood, and its subsequent contraction when this has ceased to operate, would, I think, more satisfactorily account for its oscillations and the production of the dicrotic wave than the acquired velocity due solely to its own inertia, which must be very slight. Moreover, the hypothesis suggested by Dr. Galabin, of a want of equilibrium between the tension of the tube and the pressure within, appears to me unlikely, if not impossible.

Whatever may be the true mechanical explanation of the movements of the aortic wall, it is satisfactory to find that Dr. Galabin's observations confirm my own as to the important part they play in the production of dicrotism, and also the views I have expressed concerning the conditions under which it varies.

I am, &c.,

F. A. Mahomed.

London Fever Hospital, December 22.

Letter from Dr. A. L. Galabin.

[To the Editor of the Medical Times and Gazette.]

Sir,—A letter is published in the *Medical Times and Gazette* of December 20, in which Mr. McVail maintains that elasticity only ought to be regarded as the cause of the dicrotic wave of the pulse, and objects to the view which I had stated—namely, that one of its components depends upon the effect of the inertia of the arterial walls on their lateral motion. Elasticity is a term which is rather apt to mislead, because it is used in several different senses. Thus, the quality which produces the rebound of a ball has scarcely anything except the name in common with that which regulates the distension of a tube. Again, both glass and steel are very elastic in the more accurate sense of the word, but a tube made of either material would allow no perceptible wave of expansion to occur. Therefore, the special quality in the tube which is concerned in the production of the dicrotic wave is not so much elasticity as distensibility combined with elasticity, since every substance which could be made into a tube capable of containing the blood possesses elasticity in the strict sense. I had already expressly stated it as my own view that elastic distensibility is a necessary condition for the production of the dicrotic wave, and that with an increase in that distensibility dicrotism becomes greater. Indeed, if the arterial walls had not this quality, the great expansive wave itself could not occur, and it might thus truly be called a cause, not only of the dicrotic, but of the primary pulse-wave. But the point is to determine in what manner distensibility comes into play in the causation of dicrotism, and in concert with what other conditions. Thus, Mr. Mahomed and Mr. McVail both say that elasticity only is the cause of dicrotism; but their theories are totally different from each other, for Mr. Mahomed thinks that the contraction of the aorta produces an expansion in the peripheral arteries, and that no dicrotic wave occurs in the aorta itself; while Mr. McVail believes that the dicrotism of each segment is produced by the elasticity of that very segment.

There are some subjects in which experiment may be more easily intelligible than reasoning, and I will therefore refer to an observation first described by Professor Marey. A schema, consisting of an artificial heart and elastic tubes, is employed to propel—in the first place, air; secondly, water; and lastly, mercury. In the first case it is found that the secondary waves are altogether imperceptible; when water is used they are considerable; but when mercury is taken they become enormous. In this experiment elasticity remains the same in all three cases, while the variation of inertia alone makes the utmost possible difference in the amount of dicrotism. The case of dicrotism has therefore no analogy whatever with that of the rebound of an elastic ball. In that case the recoil would be ascribed to elasticity, and not to inertia, because it takes place at the same angle, whether inertia be great or small. If, however, the angle were to grow smaller in proportion to the diminution of inertia, then the rebound could not rightly be said to be caused by elasticity only. In the case of the experiment above referred to, the inertia varied is that of the fluid, and not of the arterial wall. I have only supposed that the latter has any important influence, because, since the motion of the fluid and of the tube can only take place as a whole,

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it involves at the same time the effect of the inertia of the whole fluid.

It may be well very briefly to recapitulate the causes which I believe to contribute to the dicrotic wave. The first of these is that which depends more directly upon the aortic valves, and which both Mr. Mahomed and Mr. McVail entirely discard. From the moment when the systole of the heart ceases, the onward movement of the blood in the aorta continues for an instant in consequence of its acquired velocity, and thus causes a fall of pressure near the valves, since no more blood is entering from the heart. Very soon this acquired velocity is checked by the pressure in front, and then a reflux occurs, which closes the aortic valves, and, being reflected by them, causes a second elevation of pressure, and a second centrifugal wave of expansion. Thus the first cause of dicrotism is a to-and-fro oscillation of the fluid near to the aortic valves, which is reflected from those valves, but would occur to some extent even in ther absence. The acquired velocity is checked more slowly, and therefore the oscillation is greater, if the inertia of the fluid be increased, if the tension in the tube be diminished, or its distensibility increased. This first cause therefore depends directly upon the inertia of the fluid; but I have argued that another cause also comes into play, involving primarily the inertia of the arterial wall, and only secondarily that of the fluid; and yet a third, which depends upon the acquired *lateral* velocity of the fluid. The effect of these together will be, while slightly modifying the transmission of the primary wave, to cause it to be followed by a series of oscillatory waves. I have complete confidence in appealing to the judgment of anyone who has studied hydro-dynamics mathematically on two points:—first, that Mr. Mahomed's theory, that the simple elasticity of the aorta causes a second expansion in the peripheral arteries, but not in the aorta itself, is impossible; and secondly, that the oscillation which I have considered to be a second cause of dicrotism must theoretically occur. It is, however, fairly open to question whether it forms a part of the dicrotic wave, or whether it is too minute to be appreciable. The chief reasons for considering the first cause of dicrotism to be by itself insufficient are the following—1. With a schema consisting of an artificial heart and bifurcating elastic tubes, a considerable dicrotic wave, and succeeding oscillatory waves, are obtained in the entire absence of the aortic valves. 2. In a schema of this kind, and also in experiments upon animals, it is found that close to the heart the dicrotic wave, although visible, is less marked than at some distance off. It would seem, therefore, that it depends upon the effect of the whole length of the tube up to the point at which it is observed. If the lateral oscillation took place in each small transverse segment of the tube independently, as Mr. McVail appears to suppose, it could only be infinitesimally small, because it could then only occur by compression of the fluid, which is almost incompressible. As it is, however, yielding is allowed in consequence of the distensibility of the envelope in other parts.

Mr. McVail says that I have attempted a hyper-metaphysical refinement of expression. I regret that, by aiming at accuracy of expression, I should have become unintelligible to anyone; but the explanation of the use of the terms elasticity and inertia, and their effect on the motions of bodies, is to be found, not in metaphysics, but in a very different science, and one which does demand precision of language—namely, that of mechanics.

I am, &c.,
A. L. Galabin.

SO-CALLED "HOMŒOPATHIC MEDICINES."

Letter from Dr. Henry Lewis.

[To the Editor of the Medical Times and Gazette.]

Sir,—As corroboratory evidence of the danger of trifling with so-called homœopathic medicines, as recently reported by you in the proceedings of the Clinical Society, will you allow me to record the following case:—

On the 15th inst., I was called at 10 p.m. to see Mrs. C.'s maid. The last three evenings she had become dull and heavy about 6 p.m., and she had been very excited just before I saw her. She was lying on the floor in her night-dress (having been left in bed), and was apparently in a state of stupor. When roused she looked vacantly around, and was led to a chair, being very tottery on her legs. The pupils were widely dilated, contracting feebly under a strong light. It was not easy to arrest her attention, and she understood what was said to her with difficulty; in talking she rambled from one subject to another. I was able to extract from her that her throat was not dry, and that she had suffered from facial neuralgia; but she denied having taken anything to ease pain. In the morning I was told she was perfectly coherent and well. She admitted having taken "drops" for neuralgia for the last three or four nights, and repeated doses on the previous evening. She produced the bottle from which she had dosed herself, which was labelled "Tincture of Aconite," with the name and address of Mr. Epps.

I am, &c.,
Henry Lewis,
Folkestone, Dec. 20. M.D. Brussels, M.R.C.S., etc.

REPORTS OF SOCIETIES.

CLINICAL SOCIETY.

Friday, December 12.

Prescott Hewett, F.R.C.S., President, in the Chair.

Mr. Wheelhouse, of Leeds, read the following particulars of a case of Aneurism of External Iliac Artery Cured by Pressure with Lister's Abdominal Tourniquet:—R. L., publican, was admitted into the General Infirmary at Leeds, on September 26 last. His family history was good, and he had always been temperate. He contracted a chancre in 1860, followed by suppurating bubo, rash over body, and sore throat. In 1861 he "caught cold" in his eye, and, soon afterwards, iridectomy was performed by Mr. Teale. In 1862, kidney-mischief, with bloody urine, occurred, for which he was treated (as he says) successfully with iodide of potassium and sarsaparilla. Twelve months ago, a popliteal aneurism was found in the right leg, accompanied by pain, which latter became aggravated by a subsequent strain, and was treated by Mr. Wheelhouse, in consultation with Mr. Newstead, by continuous compression of the femoral artery for eight hours, by means of Porter's femoral compressor, which was well borne, and proved perfectly successful, the tumour, in September last, being perfectly hard, about the size of a pigeon's egg, and easily felt in the popliteal space. About the middle of July last, the patient felt another tumour in the right iliac fossa, constantly pulsating and very painful. It seemed to have formed gradually, without history of strain or other injury; the right leg was colder than before. The author, with Mr. Newstead and Mr. Jessop, found a large pulsating and expansile tumour in the right iliac fossa, reaching from Poupart's ligament upwards to within two inches of the umbilicus, and extending in an outward direction, almost to the spine of the ilium; about the size of a small cocoanut, hard and firm at the lower part, and softer in the upper portion, with pulsations and dilatations synchronous with the pulse in the left femoral artery. The swelling appeared to be connected wholly with the external iliac artery, but to extend and overlap the common iliac; and, although pressure could not be made on the latter sufficient to stop the beating, it was easily controlled by pressure on the abdominal aorta, just above its bifurcation. After a consultation, treatment by pressure was determined upon, and, on September 27, chloroform was administered by Dr. Barfoot, ether being substituted as soon as the muscles were relaxed, and its action kept up continuously for five hours without any untoward symptoms, twenty-five ounces of ether being used. Lister's large abdominal tourniquet was applied just over the umbilicus, and slowly screwed down until the flow of blood through the aneurism was arrested. Two slips of the instrument occurred during the first half-hour, but it was immediately replaced. Pressure was commenced about 1.15 p.m.; the foot was cold, and a little blue, at 2.30 p.m.; at 3 p.m., the tourniquet was unscrewed slightly, pulsation in the tumour returned, and the instrument was at once reapplied. At 4 p.m., blueness had extended beyond the knee, the left leg being very cold; at 5 p.m., the right limb was blue to the groin, and the left to the knee. Pressure then slightly relaxed; tumour much harder, but pulsation still perceptible. At 6 p.m. both limbs were black, and body blue as far as tourniquet. The instrument was then removed gradually in fifteen minutes, a quarter-turn of the handle being taken every minute. The tumour had ceased to pulsate, and was firm and hard; the limbs were wrapped in wool and tied together, and a hypodermic injection of morphia given. During the entire operation, slight pulsation could be felt in the left femoral artery. At 7 p.m., there was a slight pulsation in the aneurism, but it was firm and hard. At 10 p.m., pulsation had increased, bnt the tumour remained firm, and another

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morphia injection was given. A restless night was passed, and next day the tumour pulsated with nearly its old force; but the walls of the aneurism felt thicker and harder than before the operation, and the beating was more "lifting" and less "distensile," the author predicting that it would soon cease altogether. Two grains of opium were ordered to quiet the bowels. The limbs were recovering their natural hue and temperature. On the second morning after the operation, the tumour was still harder, pulsation was almost imperceptible, the patient was easy; and, in the evening of the same day, the tumour was almost fully consolidated, and both limbs were normal as to warmth. Three days after the operation, the pulsation was found to have stopped; the tumour was hard and firm. When examined on November 14 (forty-eight days after operation) no pulsation was found; the aneurism had contracted, was hard and firm, about the size of a cricket-ball; the limb had completely recovered, and the patient had returned to work. The author was assisted at the operation by Dr. Barfoot, house-physician, and Mr. A. R. Dunnage, house-surgeon to the hospital. Sphygmographic tracings, taken before and immediately after the operation, were exhibited to the Society.

Mr. Bryant said all now admitted that abdominal aneurism can be successfully treated by pressure, but the practice was not without danger. In his own case the pressure contused the intestine, and the patient died of peritonitis. Nevertheless, such a risk was not sufficient to make us avoid such an operation if the aneurism was progressive, for it was certain that aneurism of the aorta might be cured spontaneously or expectantly. He remembered a case which was being treated expectantly, and the question was under discussion whether pressure should not be employed, when the aneurism burst and the patient died. Delay might prove fatal even in an aneurism of the extremities. One great argument against the treatment by pressure was that both expectancy and pressure might fail, and they would then regret the delay. The operation for aneurism was not so serious as in former days. Syme used to boast of twenty-three cases of femoral aneurism in succession without a death. At Guy's, out of twenty-four such cases, there had been only one death by pyæmia. In seventeen cases treated by pressure, there had been failure in six. There was hardly a question of cutting in Wheelhouse's case, but it was a question how long should we be justified in waiting and trusting to expectancy before operating by the knife. We cannot always attain success by pressure, and in a certain number of cases there was even less risk in cutting than in using pressure. He thought there was no evidence to show that syphilis had anything to do with aneurism.

Mr. B. Holt said he could confirm much that Mr. Wheelhouse had said from personal experience. He had had a case of large femoral aneurism in the upper part of the thigh, which he treated by pressure on the vessel. The aneurism seemed circumscribed, so he tried pressure, but the patient could not bear it, and it had to be abandoned. Again he tried the pressure for twelve hours under chloroform, and when removed it seemed quite cured, but next morning all the bad symptoms had returned. After a fortnight, pressure was again applied under chloroform, this time for fifty-two hours. It was then perfectly consolidated and practically cured. A small slough formed where the pressure had been applied, but except this there was not a single bad symptom. This was now two years ago, and the man was presented to the Society in good health.

Dr. Moxon had met with a healed aneurism of the aorta, and had looked under what conditions these do heal. He had waited, but he had always found one result. There were now eight or nine well-authenticated cases, and all of these coexisted with some wasting disease. Hence he thought Valsalva's method sound, if sternly carried out. Sometimes he had seen a sac with only a small opening, so that a cure might easily have been effected. He did not think that syphilis had anything to do with aneurisms; for instance, they are not found in female prostitutes. We might find syphilitic inflammation of vessels within the brain, but not elsewhere.

Mr. Durham said that of his cases of aortic aneurism treated by pressure, one was now quite well, the other died because the pressure was too long continued. In Mr. Bryant's case there was injury to the pancreas and to the intestines. The pressure must be applied either high up or else low down. High up will only suit if the aneurism be low down. There were no signs of the effects of pressure in his own fatal case; the patient really died of exhaustion. Pressure on the semilunar ganglion altered the pulse much in the way indicated in Wheelhouse's tracings. If Lister's or Pancoast's tourniquet was used, it should have the pad grooved rather than convex. There was no hard-and-fast line as to treatment; each must be judged on its merits.

Mr. Callender said that in one case alluded to as having the pancreas damaged he saw the post-mortem examination. The pancreas was injured; the great arteries, especially the superior mesenteric, were blocked, and the nerves damaged. That was the cause of death.

Mr. Holmes said that Mr. Wheelhouse had stated that his treatment by manipulation was generally satisfactory. He would like to know the details, as the rule was to the contrary. He thought that in pressure the risk must be greater the higher up the pressure was applied; especially there was risk to the liver and cœliac plexus as well as to the heart itself. Nevertheless, any risk was justifiable in a case like that of Mr. Wheelhouse's. No *à priori* rule could in fact be laid down. If a case were improving on the expectant plan, he would not think of operating. Pressure offers a good chance; but cutting operations on the aorta have almost always proved fatal. In a case of femoral aneurism, pressure was successful in one hour and a half, though the patient was old; in another it succeeded in five hours and a half. Expectancy meant, to his idea, the hope of curing the patients by rest; and no doubt in this way they did get well. Sometimes they may be cured by the detachment of clot.

Mr. Haward brought forward a specimen of Aneurism of the Superior Mesenteric Artery, which had been under the care of Mr. G. Pollock. The man was a painter, pale and emaciated, and had a tumour the size of an orange in the abdomen. Pressure was used under chloroform, but when the tourniquet was screwed down the pulse became feeble and irregular, and the breathing embarrassed. This continued for two hours and ten minutes, when the signs became so dangerous that they had to unscrew the tourniquet. Gradually the man recovered from the effects of the pressure, but next day his urine was bloody. Next time ether was given, but the pressure gave rise to the same dangerous symptoms, so that it had again to be relinquished, and was not again tried. After six months he was discharged much better, his tumour smaller and harder, and he was able to do a little work, but soon got worse. He ultimately died suddenly, his aorta having given way, but the aneurism was solid. The danger of pressure on the aorta was shown in such cases by its influence on the pulse.

Mr. Barwell suggested the publication of Mr. Holt's case in its entirety; whilst

Mr. Callender suggested that Mr. Pollock's might be so also.

Mr. Wheelhouse, in reply, said that Mr. Teale had treated many cases by manipulation, some with good results, but the plan was dangerous. One or two ended suddenly and fatally. One curious case was at first seen to be a cyst in the neck, and was tapped. Later an aneurism formed in the same situation. Whilst examining it a portion of the clot was carried to the brain, and the patient died. Since that they had been more careful, but still used the plan. As to expectancy, they might expect everything, but the so-called expectant was only one of many methods. Each case must be treated on its own merits. The rapidity of growth was great in both his cases. Now, what caused this? Was it the syphilis? He thought the recurrence due to syphilis. It was useless to compress save thoroughly and completely.

Mr. R. Brudenell Carter read the following notes of a case of Sarcomata of both Irides:—G. D., aged 15, a well-grown lad, slight and delicate-looking, but usually healthy, and of good family history, was lately admitted into St. George's Hospital. He had been liable to colds, which "affected his eyes," and had had enlarged cervical glands. Three months before, he first noticed a small speck on the iris of the left eye, which steadily increased in size and interfered with sight. A fortnight before admission, two similar specks appeared in the right eye, and also increased. On examination, a tumour, about the size and colour of a split pea, was found, seated on the lower portion of the left iris, extending to the margin of the anterior chamber, encroaching somewhat upon the pupil, and lying in contact with the inner surface of the cornea. The tumour was covered by a fine network of bloodvessels. The rest of the iris appeared healthy, the aqueous humour was clear, and the cornea generally transparent, though here and there dotted with small circular specks of opaque deposit. Vision was reduced to No. 8 of Jaeger's types, but with the aid of a convex glass of 24″ he could read No. 1; showing that the defect was chiefly from interference with accommodation.

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There was a zone of fine injection round the cornea, and the presence and increase of the tumour were manifestly beginning to induce irritation. In the right eye were two small growths of a similar character, springing from the outer part of the margin of the iris; but the eye was in other respects healthy, and the vision was unaffected. On October 24, Mr. Carter removed the tumour from the left eye by making an opening into the anterior chamber on either side of it, and then uniting the two openings by means of a blunt-pointed knife. In this way a sufficient incision was made without wounding the tumour itself, which was then drawn out and removed, together with the piece of iris on which it rested, by three strokes of the scissors. The specimen was handed to Mr. Haward for examination. The wound left by the operation united readily, but the cornea became opaque at its posterior surface, where it had been in contact with the growth. Two or three days later, a very slight and insidious iritis appeared, resulting in an adhesion between the upper part of the pupillary margin and the anterior capsule, and by which the artificial pupil left by the iridectomy was slowly dragged down towards the cicatrix. This condition was treated locally by atropine, and afterwards, at the suggestion of Mr. Bader, by daturin. The irritation gradually subsided, and the corneal opacity subsequently diminished. The sight, which was of course greatly impaired when the pupil was behind a patch of opaque cornea, improved in a degree corresponding with the clearing up of the opacity. Simultaneously, however, a fresh tumour appeared at the outer margin of the iris, and the tumour in the right eye steadily, though slowly, increased. Mr. Haward reported the growth removed to be a round-celled sarcoma, and sections were exhibited by him to the Society. Mr. Carter submitted the case, and exhibited the patient, at this early stage, hoping to receive guidance as to his future course of action. He believed that both vision and life were seriously imperilled, and that almost the only prospect of saving life was by the removal of the eyes before vision was lost. He proposed, as a first expedient, to remove the whole of the irides, but wished for the opinion of the Society, as he had not yet found any similar case recorded.

The discussion was adjourned, as the Society had exceeded its usual time of sitting.

THE PATHOLOGICAL SOCIETY.

TUESDAY, DECEMBER 16.

Sir WILLIAM JENNER, Bart., President, in the Chair.

MR. TAYLOR exhibited specimens of Lymphadenoma from a patient the subject of leucocythæmia. The patient was a boy aged 12, who five weeks before being seen began to show œdema of the legs, face, etc. He had a large spleen, and showed many white blood-corpuscles—as many as one-tenth of the whole. The lymphatic glands in the neck and axilla were also large. The temperature was 102° Fahr. He gradually got worse and went out, but returned in three days very much worse, and soon died. The liver weighed fifty-four ounces, and showed new growths along the line of the portal vessels. The spleen weighed fifty-one ounces; the glands were enlarged, and the gland-tissue increased. Lymphoid tumours also lay in the mediastinum in front of the pericardium, and the lymphoid growth had invaded the muscles. There was also some of this new growth beneath the pleura. The kidneys contained whitish nodules of the same kind, and some were also to be seen in the epididymis. The case was interesting as showing the combination of leucocythæmia and lymphadenoma.

Sir W. JENNER said that in leucocythæmia with large spleen the elevation of temperature was a constant symptom, but in Hodgkin's disease there was none.

Mr. TAYLOR said Dr. Murchison had exhibited a case which was described as Hodgkin's disease, where the temperature had been high.

Mr. CRIPPS showed a Spleen weighing nine and a half pounds found in a female in the dissecting-room. Her age was sixty-nine, and her abdomen was greatly enlarged. Last year she had suffered from cough, and became emaciated, and her abdomen tender. There was no increase of bodily temperature, nor white cells in the blood. There was an increase in the connective-tissue in the liver, and the lymphatic glands were large.

Dr. CAYLEY thought the theory as to the origin of leucocythæmia not very satisfactory. We found it with very different conditions of parts.

Dr. CRISP traced enlargement of the spleen to great muscular exertion, and remarked on one specimen in St. Thomas's Hospital, where a young man had ruptured a large spleen from running; but

Sir W. JENNER suggested that probably the spleen was large before he began to run. He asked if there was any proof that white blood-corpuscles did originate in the blood itself.

Dr. CRISP showed a specimen of Imperforate Rectum from a male child. It was small and delicate, and rejected its food; it passed nothing by the bowels, and on examination, though the anus was found, it was seen to be imperforate, but the gut was found closed and distended. An operation was rejected; and in truth it was not very successful, as his statistics showed. Imperforatic anus was more common in males than in females. He alluded to one extraordinary case where a female rejected her fæces by vomiting, and passed urine by her nipples.

Mr. F. CLARKE thought it rare to find occlusion of the rectum in males. He, too, had come across that curious case.

Mr. J. WOOD said deformities of the bladder were also most common in males. Of ectopia vesicæ he had seen fifty or sixty cases, but only six were in the female.

Mr. MORRIS mentioned a case where fæces were passed per vaginam, which he was able to remedy.

Mr. GODLEE showed some specimens of Ossifying Enchondroma. One had been removed from the upper part of the tibia of a boy. Two smaller growths near by were shelled out, and in these ossification was going on.

Dr. DOWSE sent a specimen of Renal Calculi from a man aged 42. He had at one time complained of pain in the region of the kidney, but died from a totally different affection. The calculi were shown *in situ*, and had not been examined.

Sir W. JENNER knew of a case of calculi in the kidney which had lasted for forty years without symptoms.

Dr. CAYLEY showed some specimens of Psammoma of the Dura Mater, from a female aged 57, who died of capillary bronchitis. She had suffered from epistaxis, and later had hemiplegia of the left side. He found a firm tumour in the dura mater, lodged in a hollow in the anterior cerebral lobe on the right side, with a clot beneath it in the optic thalamus. Some of the bodies found in the tumour were of considerable size. They might either consist of fibrin or be altered cystic bodies. They looked to him like calcified layers of fibrin.

Mr. GODLEE showed a specimen of Peri- and Myo-carditis from a case of blood-poisoning. The patient was a man aged 30, who had injured his finger. This was followed by swelling and redness extending up the arm. The wound was opened, and the parts improved locally, but the general condition did not improve. His knee also became very painful, so that he could not stand. His temperature rose to 103°, and his pulse to 96, when pericarditis developed itself. Pus formed in the thigh, and was evacuated. This relieved him for a time, but his breathing got bad, and he died from the heart mischief. The abscess in the thigh was large; there was serum in the pleura, and the lungs were œdematous. The pericardium contained turbid fluid, and its surface was gritty. The muscular tissue of the heart was brown or yellow, and broken down. The fibres were granular and fatty, with new cells between them.

Sir W. JENNER said the heart was often damaged in pericarditis without apparent interference with the circulation. Perhaps the texture was altered after death.

Mr. GOODHART said he had seen multiple abscess of the heart without irregularity of pulse.

Mr. GODLEE said his case was not comparable to pyæmic abscess of the heart.

Dr. CAYLEY showed a specimen of Cystic Disease of the Kidney, which had been several times tapped. The patient was a child with an enlarged belly and a tumour on its right side, tense and globular. It was thought to be hydatid, and was punctured, some ounces of chocolate-looking matter coming away. The operation was repeated three times, when the child died exhausted. The tumour turned out to be a cystic kidney, from which, after removal, thirty-two ounces of fluid oozed away.

Mr. DE MORGAN showed an area spike just removed from the body of a man who had fallen from a window. One spike-head was broken off, and remained in the man's chest. There was emphysema; but when the iron was removed, and

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the wound sealed over, the pulse came down and the breathing was quiet. What the event would be he could hardly say.

Mr. De Morgan also exhibited a specimen of Enchondroma of the Tibia, in great part made up of small half-isolated nodules, some tending to become cystic. The patient was a female, who first noticed a swelling about her knee in 1871. This swelling subsided, but again it began to enlarge, and in March this year began to grow rapidly. He was afraid there was some risk of secondary infection, as the growth ran high up, and enchondroma might be mixed up with other growths.

Mr. J. Adams exhibited a Peculiarly Deformed Knee. It seemed that such a deformity—the parts being bent directly backwards—could only be produced by dividing certain ligaments. So, as the patient had fallen and broken the patella, he thought these ligaments might have been ruptured, but dissection showed that was not so. With support the patient would have been able to walk.

MEDICAL NEWS.

APPOINTMENTS.

*** The Editor will thank gentlemen to forward to the Publishing-office, as early as possible, information as to any new Appointments that take place.

Barrow, B., J.P., F.R.C.S.—Additional Honorary Consulting Surgeon to the Royal Isle of Wight Infirmary.

Browne, Lennox, M.R.C.S. Eng.—One of the Honorary Surgeons to the Royal Society of Musicians.

Eales, Henry, M.R.C.S.—House-Surgeon at the Birmingham and Midland Eye Hospital, *vice* Mr. Priestley Smith, resigned.

Manning, F. Norton, M.D.—Examiner in the Faculty of Medicine of the University of Sydney, New South Wales, *vice* J. Marfarlane, M.D., deceased.

Smith, Shingleton, M.D., B.Sc., M.R.C.S. Eng., L.S.A.—Consulting Physician to the Bristol Dispensary.

NAVAL AND MILITARY APPOINTMENTS.

Admiralty.—The undermentioned officers have been promoted to the rank of Staff Surgeon of the second-class in her Majesty's Fleet:—Thomas Warden, M.D., John Sampson Lewis, M.D., James Fitzgerald Parr, and Edward Olive.

War Office.—Medical Department.—Surgeon-General S. Currie, M.D., C.B., to be Honorary Physician to the Queen, *vice* Inspector-General of Hospitals D. Scott, M.D., deceased; Local Deputy Surgeon-General A. D. Home, V.C., C.B., to be Deputy Surgeon-General; Surgeon J. W. Lougheed to be Surgeon-Major, *vice* W. H. Pollard, retired upon temporary half-pay. Surgeon R. A. Allen, M.D., to be Surgeon-Major, *vice* J. C. Knipe, placed upon temporary half-pay; Surgeon-Major C. M. M. Miller, M.D., retires upon temporary half-pay.

BIRTHS.

Arnott.—On December 26, at 6, Nottingham-place, W., the wife of Henry Arnott, F.R.C.S., of a daughter.

Atthill.—On December 30, at Waterbeck, Ecclefechan, Dumfriesshire, N.B., the wife of W. E. Blennerhassett Atthill, M.R.C.S. Eng., L.R.C.P. Lond., of a daughter.

Bucknill.—On December 20, at Holly House, Rawtenstall, Lancashire, the wife of E. Bucknill, M.D., M.R.C.S. Eng., L.S.A., of a son.

De Chaumont.—On December 25, at Woolston Lawn, near Southampton, the wife of Surgeon-Major F. De Chaumont, M.D., of a daughter.

Fox.—On December 30, at 14, Harley-street, Cavendish-square, W., the wife of Tilbury Fox, M.D., of a daughter.

Hammond.—On December 24, at Coton-road, Nuneaton, Warwickshire, the wife of W. Hammond, L.R.C.P., M.R.C.S. Eng., L.S.A., of a son.

Hilton.—On December 23, at Hedingham House, Clapham-common, the wife of John Hilton, F.R.C.S. Eng., F.R.S., of a son.

Rayner.—On December 24, at Teviot Dale, Stockport, the wife of Edward Rayner, M.D., of a daughter.

Roome.—On December 23, at The Elms, Parkhurst, Isle of Wight, the wife of Henry Roome, M.D., of a daughter.

MARRIAGES.

Roworth—Ingram.—On December 16, at St. James's, Piccadilly, A. T. Roworth, M.R.C.S. Eng., L.S.A., to Frances Gertrude, youngest daughter of Robert Ingram, Esq., of Grays, Essex.

Smith—Taylor.—On December 23, at St. Luke's Church, Cheltenham, Frederick Augustus Alfred Smith, L.R.C.P., M.R.C.S. Eng., 1, Park-place, Cheltenham, to Helen Elizabeth, eldest daughter of the late H. C. Taylor, Esq., of Cheltenham, and formerly of The Hayes, Staffordshire.

DEATHS.

Applin, George Peek, L.R.C.P. Edin., M.R.C.S. Eng., at Hastings, on December 24.

Bailey, Henry Woodruffe, F.R.C.S. Eng., J.P. for the borough of Thetford, at Thetford, Norfolk, on December 17, aged 86.

Collet, Henry James, M.D., M.R.C.S. Eng., L.S.A., at Worthing, Sussex, suddenly, on December 22, aged 64.

Gibb, Hugh, Surgeon-General Bombay Army, at Glenyon, Central Hill, Upper Norwood, on December 25, in the 72nd year of his age.

Goude, John Fisher, M.R.C.S. Eng., L.S.A., late of 4, Finsbury-square, at 196, Blackfriars-road, on December 30, aged 58.

Hare, Sarah Anne, eldest daughter of the late Lancelot Hare, M.D., of Upper Gower-street, at 27, Queen's-gardens, Hyde-park, on December 25.

Irving, John, M.D., late of H.E.I.C.'s Madras Medical Establishment, at 2, Priory-street, Cheltenham, on December 21, in his 88th year.

Keys, Harry Hudson, second son of the late George Francis Keys, F.R.C.S. Eng., of Warwick-street, Regent-street, drowned off the ship *Durham*, at San Francisco, on November 29, aged 15.

Merry, Frances, wife of Robert Merry, M.D., Marlowes House, Hemel Hempstead, Herts, on December 20, after a protracted illness, aged 56.

Stuart, Abel, M.D., formerly of Barbadoes, at 26, South Bank, Regent's-park (his residence for nearly forty years), on December 21, aged 78.

Webb, Francis Cornelius, M.D. Edin., F.R.C.P. Lond., M.R.C.S. Eng., L.S.A., F.L.S., F.S.A., suddenly, at his residence, 22, Woburn-place, Russell-square, on December 24, aged 47.

VACANCIES.

In the following list the nature of the office vacant, the qualifications required in the Candidate, the person to whom application should be made, and the day of election (as far as known) are stated in succession.

Borough Hospital, Birkenhead.—Assistant House-Surgeon. Candidates must be doubly qualified. Applications, with testimonials, to the Chairman of the Weekly Board, on or before January 6.

City of London Lunatic Asylum, Stone, Dartford, Kent.—Assistant Medical Officer. Candidates must be duly qualified. Applications, with testimonials, to the Committee of Visitors, under cover to Henry F. Youle, Clerk to the Committee, Guildhall, London, on or before January 15.

Coton-hill Institution for the Insane.—Assistant Medical Officer. Candidates must be duly qualified. Applications, with testimonials, to Dr. Howson, Coton-hill, Stafford.

General Hospital, Nottingham.—Physician. Candidates must be duly qualified. Applications, with testimonials, to the Chairman of the Qualification Committee, on or before March 10.

Hospital for Sick Children, Pendlebury, Manchester.—Medical Officer. Candidates must be duly qualified and registered. Applications, with testimonials, to the Honorary Secretary, on or before January 15.

King and Queen's College of Physicians, Dublin.—King's Professorship of Medicine. Candidates must be duly qualified. Applications, with testimonials, to Dr. G. Magee Finny, Registrar of the College of Physicians, and to the Rev. Dr. Carson, Registrar of Trinity College, Dublin, on or before February 1.

Radcliffe Infirmary, Oxford.—House-Surgeon. Candidates must be duly qualified. Applications, with testimonials, to the Secretary, on or before January 10.

Royal Surrey County Hospital, Guildford.—House-Surgeon. Candidates must be duly qualified. Applications, with testimonials, to the Assistant-Secretary, on or before January 12.

Seamen's Hospital, Greenwich.—House-Physician. Candidates must be M. or L.R.C.P. Lond. or L.S.A. Applications, with testimonials, to Kemball Cook, House-Governor and Secretary, on or before January 17.

Sunderland and Bishopwearmouth Infirmary and Dispensary.—Senior House-Surgeon Candidates must be doubly qualified. Applications, with testimonials, to the Medical Board, on or before January 1.

Tewkesbury Union.—Forthampton District.—Medical Officer. Applications, with testimonials, to George Badham, Clerk to the Guardians, on or before January 20.

Unst, Shetland.—Medical Officer for the Parochial Board. Applications, with testimonials, to Mr. White, Inspector of Poor, Unst.

Westminster Hospital.—Assistant-Surgeon. Candidates must be F.R.C.S. Eng. Each candidate must attend (with his testimonials) the House Committee on February 10.

UNION AND PAROCHIAL MEDICAL SERVICE.

*** The area of each district is stated in acres. The population is computed according to the census of 1871.

RESIGNATIONS.

Bromley Union.—Mr. T. H. Smith has resigned the Third District; salary £90 per annum.

Frome Union.—Dr. Henry F. Parsons has resigned the Second District; area 11,199; population 3892; salary £90 5s. per annum.

Sleaford Union.—Mr. Richard Brocklesby has resigned the Osbournby District; area 12,070; population 1644; salary £26 per annum.

Truro Union.—Mr. J. H. Lambrick has resigned the St. Agnes District; area 14,600; population 7582; salary £35 per annum.

Whitchurch (Hants) Union.—Mr. Sidney Hayward has resigned the Overton District; area 8577; population 1583; salary £40 per annum.

APPOINTMENTS.

Boston Union.—William J. H. Wood, M.R.C.S. Eng., L.R.C.P. Edin., L.R.C.S. Edin., to the Skirbeck District.

Castle Ward Union.—David Bethune, L.R.C.P. Edin., L.F.P. & S. Glasg., to the Ponteland District and the Workhouse.

Conway Union.—Thomas Davies, L.R.C.P. Edin., M.R.C.S. Eng., to the Creuddyn District.

Driffield Union.—John Bell, L.S.A., to the Weaverthorpe District.

Hendon Union.—William W. W. Andrew, M.B. Cantab., M.R.C.S., to the Hendon District.

Horsham Union.—Thomas Gravely, M.R.C.S. Eng., L.S.A., to the Seventh District.

Huddersfield Borough.—George Jarmain, as Analyst.

Liverpool Parish.—Thomas S. Floyd, M.B. Dub., L.R.C.S. Ire., as Assistant Medical Officer at the Brownlow-hill Workhouse.

Merthyr Tydfil.—Thomas E. Jones, L.F.P. & S. Glasg., L.R.C.P. Edin., L.S.A., to the Penderyn District.

Poplar Union.—Mr. Alfred G. Anderson as Analyst for the Poplar Board of Works District.

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Smallburgh Union.—William Wilcox, M.R.C.S. Eng., L.R.C.P. Edin., to the Bacton District.

Solihull Union.—William A. Parsons, M.R.C.S. Eng., L.R.C.P. Edin., to the Tamworth Disirict.

Todmorden Union.—William Thompson, L.R.C.P. Edin., M.R.C.S. Eng., to the Stansfield District.

Westbury and Whorwelledown Union.—Lewis Miller, L.R.C.P. Edin., L.R.C.S. Edin., L.A.H. Dub., to the Second District.

West Derby Union.—John Newton, M.R.C.S. Eng., L.S.A., to the West Derby South Municipal District.

MR. ALEXANDER WYNTER BLYTH has been appointed Medical Officer of Health for the Bideford, Dulverton, Okehampton, South Molton, and Torrington Rural Sanitary Districts at a salary of £550 per annum.

AN increase to his salary of £50 a year has been voted by the Islington Vestry to Dr. Tidy, the analyst of the parish, under the Adulteration Act.

MR. RALPH GOODALL, of the Wolstanton and Burslem Union, has been awarded a grant, for the second time, for meritorious vaccination, amounting to £52 19s.

IN London last week 1540 deaths were registered, showing 156 below the average numbers. The fatal cases of measles, which had been 118, 133, and 168 in the three preceding weeks, decreased last week to 107.

PROFESSOR PITHA.—This distinguished surgeon has bade farewell to his friends on setting out for a prolonged residence at Nice on account of the bad state of his health. Ill for some time before, his condition became much aggravated by the loss of his only son, an officer in the war of 1866, and whose body, notwithstanding unremitting exertions, he was never able to find.

COMPOSITION AND QUALITY OF THE METROPOLITAN WATERS IN DECEMBER, 1873.—The following are the returns (by Dr. Letheby) of the Society of Medical Officers of Health:

Names of Water Companies.	Total Solid Matter per Gallon.	Oxygen required by Organic Matter, &c.	Nitrogen.		Hardness.	
			As Nitrates &c.	As Ammonia.	Before Boiling.	After Boiling.
Thames Water Companies.	Grains.	Grains.	Grains.	Grains.	Degs.	Degs.
Grand Junction .	20·98	0·047	0·131	0·003	16·0	3·6
West Middlesex .	20·43	0·025	0·129	0·001	15·8	3·6
Southwark & Vauxhall . . .	20·70	0·041	0·134	0·002	15·9	3·6
Chelsea . . .	20·67	0·028	0·148	0·002	15·9	3·6
Lambeth . . .	20·93	0·037	0·115	0·003	16·0	3·6
Other Companies.						
Kent	28·73	0·015	0·257	0·000	21·8	5·7
New River . .	20·33	0·022	0·147	0·000	15·6	3·5
East London . .	20·87	0·071	0·167	0·002	16·0	3·6

Note.—The amount of oxygen required to oxidise the organic matter, nitrites, etc., is determined by a standard solution of permanganate of potash acting for three hours; and in the case of the metropolitan waters the quantity of organic matter is about eight times the amount of oxygen required by it.

The water was found to be clear and nearly colourless in all cases but the following, when it was slightly turbid—namely, in that of the Lambeth Company.

The average quantity of water supplied daily to the metropolis during the preceding month was, according to the returns of the Water Companies to the Society of Medical Officers of Health, 110,814,481 gallons; and the number of houses supplied was 506,792. This is at the rate of 33·0 gallons per head of the population daily. The last official return from Paris stated that the average daily supply per head of the population was 24·9 gallons; but this includes the water used for the public fountains, and for the ornamental waters in the Bois de Vincennes and the Bois de Boulogne.

NOTES, QUERIES, AND REPLIES.

He that questioneth much shall learn much.—*Bacon.*

Dr. Van Steenkiste, Bruges.—Enclosure received.

Mr. D. Thomas will find the case of Renal Inadequacy under the head of **Clark**, in the index to Vol. i., 1873.

Dr. M.—This journal has already drawn attention to the subject of increased amount of consultation fees, and at a meeting of the Council of the College of Surgeons, on Thursday next, Mr. Spencer Wells will submit a motion for the consideration of his colleagues on this important subject.

THE PAY OF SURGEONS-MAJOR IN INDIA.

TO THE EDITOR OF THE MEDICAL TIMES AND GAZETTE.

SIR,—Referring to my letter kindly published in the *Medical Times and Gazette* of October 11, 1873, I am happy to inform you that the Government of India have this month sanctioned the issue of the pay of their rank to all Surgeons-Major in India within the new establishment (168 for all India) from June, 1873. I am, therefore, no longer

India, November, 1873. AN APRIL FOOL.

P.S.—The former establishment was, I believe, about 100 or 120.

AN ACROSTIC IN MEMORIAM.

TO THE EDITOR OF THE MEDICAL TIMES AND GAZETTE.

SIR,—If you think the accompanying "acrostic" worthy a place in the journal on which our dear friend spent so much of his time and talent, it is at your service. I am, &c., J. S. LAVIES.

11, Warwick-grove, December 29, 1873.

ACROSTIC.

F all fast! flow on, ye welcome, willing tears!
R elieve the oppressèd heart, the burdened breast:
A n honoured man is taken to his rest—
N ot in *old age*, but in the *prime of years*.
C ome with me to his grave! and there, alone
(I n fond remembrance, but with sorrowing tone),
S peak of his *various* worth, and mourn him—gone!

C rown his dear memory with the worthiest wreath,
O n private tablets fix his well-loved name;
R ecord it, too, upon the scroll of fame.
N ot less doth "*Science*" mourn his early death!
E ver enlightened by a heavenly ray,
L iving, he did his *duty* day by day,
I n patient, trusting Hope: until at length,
U nder the weight of care and toil, his strength
S uccumbed,—then peacefully he passed away.

W hence, whence *alone* can consolation come,
E 'en to the saddest, most bereavèd home?
B e present, gracious God, whate'er betide
B e Thou the widow's Help, the weeping orphans' Guide.

Christmas, 1873. J. S. L.

An Anxious Candidate.—The result of the last Arts Examination at the College of Surgeons is not yet known. There were some hundreds of papers to be read, and, unfortunately, examiners—like other persons—require a little holiday at this festive season. Wait a little longer.

Early Marriage.—In his "Memorials of Twickenham," the Rev. C. R. S. Cobbett states that William Whitmore, Esq., of Hackney, when only fourteen years of age, married his cousin, who was one year his junior. The union only lasted five years, when, on the death of her youthful husband, she married Sir Richard Middleton, Bart.

Ophthalmist, Moorfields.—Mr. Phipps, the Court Oculist (who died blind), married the Baroness Howe, the widow of the son of the celebrated Admiral; soon after which he was created a baronet, and changed his name to Waller. Sir J. Wathen Waller was a very vain fellow, and wont to appear with the insignia of his wife's late father-in-law.

CORRIGENDUM.

TO THE EDITOR OF THE MEDICAL TIMES AND GAZETTE.

SIR,—I see part of my prologue for King's College Hospital published in your last impression. One line (last but one) is nonsense; will you kindly correct it? It should be "pay in their *own* coin," etc.

December 26, 1873. I am, &c., THE AUTHOR.

CONTRIBUTIONS TO NOTES AND QUERIES.

Is the oxyioduret of antimony to be found in English pharmacies? (See Dorvault, Officine.) This preparation, which may be called Iodine Kermés, ought to be placed in the Pharmacopœia. Is it true that the antimonial granules of Papilla ud, which have a most extensive sale wherever the influence of Parisian pharmacy extends, have as a base this substance? Until lately I prescribed them in the belief that I was administering arseniate of antimony.

Is the *Rhamnus Frangula* used in England? It is a gentle and agreeable laxative much employed in Sweden, as an apothecary from that country informs me.

What a triumph for the old physicians is the recognition now by the best school of English medicine of the fact that pneumonia is a fever. The Parisian and other materialists and localisers who taught that pneumonia was a lesion of the lung in which the physical state of this was the all to be considered—as in mending a broken chair the joiner mends each fracture separately—must be astonished at such a return to sounder notions, as the Liberals of all the world are, I hope, destined to be astonished by the success in France and Spain of Henry V. and Charles VII.

The exaggerations of histology and the absurdity of seeking curative indications in the material results of disease revealed by necroscopic processes will have to yield to juster views—deductions from orthodox philosophy, whose greatest exponent is St. Thomas de Aquino. Many will laugh at such assertions. Let them! It were much to be wished that chairs of general pathology were created in all schools. On the European continent this science is as a rule taught conjointly with common therapeutics. The institutes of medicine, as formerly understood and taught in Edinburgh and Dublin, ought to be taught in schools as something different from pure physiology. The course of pure physiology should precede that of the institutes.

As news for the Darwinites, I will mention that Donna Francisca Lopes Lerte Pereira, widow of the Portuguese Consul in Paraguay, killed by order of the Dictator Lopes, in her interesting narrative of the dreadful sufferings she endured with many hundred other Paraguayan ladies by the express orders of the Englishwoman, Mrs. Lynch (widow of an Irish officer in the English service), denounces the existence of a tribe of Indians in Paraguay who have not an articulate language and utter sounds indistinguishable from the voice of animals. By her description they are much below any other known tribe of men. Her narrative was offered to the Brazilian Government, from which she receives a pension of £300 a year, and was published in the *Jornal do Commercio* of Rio de Janeiro in 1871 or 1872, and may be found in the places where this journal is filed in London. The Dictator Lopes was without doubt mad, and offers a fine study for psychologists. He killed the bishop; he killed his own brother. His mother was under sentence when he was killed by a savage Brazilian soldier, known as "Joseph the Devil." This Englishwoman, Mrs. Lynch, was his concubine and chief counsellor, and very many noble Paraguayan ladies were speared and murdered in divers other ways by her orders. She is now in Europe, and is doubtless a woman of great talents, and also an interesting psychological study. I am, &c.,

Campinas, Brazil, October 4, 1873. RICHARD GUMBLETON DAUNT, M.D. Edin., Brazilian Citizen.

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COMMUNICATIONS have been received from—

Mr. H. C. Sidgt, London; Dr. A. Hollis, Dorchester; Dr. D. Thomas, Ystalyfera; Mr. Wanklyn, London; Mr. Lennox Browne, London; Dr. Van Steenkiste, Bruges; Dr. Magrath, Teignmouth; Dr. Walker, Bootle; Dr. Scrivener, Paris; Dr. Trentler, Kew; Dr. Carrard, Vernex; Dr. H. Thompson, London; Mr. J. Chatto, London; Dr. Dunglison, Philadelphia; Dr. Letheby, London; S. S.; Mr. C. S. Webber, London; Mr. A. Maclean, Bawtry; Dr. W. E. B. Atthill, Ecclefechan; Mr. J. Adolphus, Jamaica; Professor Vanzetti, Padua; Mr. W. Mercer, Wadhurst; Dr. W. H. Davis, Tean; Dr. J. Hughlings-Jackson, London.

BOOKS RECEIVED—

Blackie on Self-Culture—Cameron's Report on Public Health—Bond on the Home of the Agricultural Labourer: Its Effects, and How to Remedy Them—Squire on Lupus-Disease of the Skin and its Treatment by a New Method—Half-yearly Abstract of the Medical Sciences.

PERIODICALS AND NEWSPAPERS RECEIVED—

Lancet—British Medical Journal—Medical Press and Circular—London Medical Record—Indian Medical Gazette—Staffordshire Advertiser—Gazette Hebdomadaire—La France Médical—Gazette Médicale de Paris—Le Mouvement Médical—La Tribune Médicale—Le Progrès Médical—Philadelphia Medical Times—Nature—Bulletin Général de Thérapeutique—Gazette des Hôpitaux—The Medical Temperance Journal—Popular Science Review—Monthly Microscopical Journal—Science Gossip—The Gentlemen's Magazine—The New Quarterly Magazine—The Medical Temperance Journal—The British and Foreign Medico-Chirurgical Review—The Obstetrical Journal of Great Britain and Ireland—The New York Medical Journal—Melbourne Medical and Surgical Review—Canada Medical and Surgical Journal—Eddowe's Shrewsbury Journal.

APPOINTMENTS FOR THE WEEK.

January 3. Saturday (this day).

Operations at St. Bartholomew's, 1½ p.m.; King's College, 2 p.m.; Charing-cross, 2 p.m.; Royal Free, 9 a.m. and 2 p.m.; Hospital for Women, 9½ a.m.; Royal London Ophthalmic, 11 a.m.; Royal Westminster Ophthalmic, 1½ p.m.; St. Thomas's, 9½ a.m.

5. Monday.

Operations at the Metropolitan Free, 2 p.m.; St. Mark's Hospital for Diseases of the Rectum, 2 p.m.; St. Peter's Hospital for Stone, 3 p.m.; Royal London Ophthalmic, 11 a.m.; Royal Westminster Ophthalmic, 1½ p.m.

Medical Society of London, 8.30 p.m. Dr. Broadbent, "On Syphilitic Affections of the Nervous System."

6. Tuesday.

Operations at Guy's, 1½ p.m.; Westminster, 2 p.m.; National Orthopædic, Great Portland-street, 2 p.m.; Royal London Ophthalmic, 11 a.m.; Royal Westminster Ophthalmic, 1½ p.m.; West London, 3 p.m.

Anthropological Institute, 8 p.m. Meeting.

Pathological Society, 8 p.m. Annual Meeting for the Election of Officers, Report, &c. The following Preparations will also be exhibited:—Mr. Nunn—1. Cast of an Enchondroma; 2. Pendulous Tumour from the Pubes of a Man. Dr. Silver—Mitral Stenosis. Dr. Goodhart—Syphilitic Phthisis. Dr. Crisp—Specimens of the Grouse Disease. Mr. Butlin—Recurrent Sarcoma of the Thigh. Dr. Coupland—1. Muscles from a Case of Trichiniasis; 2. Mediastinal Tumour. Mr. Sydney Jones—Cancer of the Breast. Dr. Wickham Legg—Hydatids of the Liver Omentum and Recto-Vaginal Pouch, Jaundice, Xanthelasma Multiplex.

Royal Institution, 3 p.m. Prof. Tyndall, "On the Motion and Sensation of Sound" (Juvenile Lectures).

7. Wednesday.

Operations at University College, 2 p.m.; St. Mary's, 1½ p.m.; Middlesex, 1 p.m.; London, 2 p.m.; St. Bartholomew's, 1½ p.m.; Great Northern, 2 p.m.; St. Thomas's, 1½ p.m.; Samaritan, 2½ p.m.; King's College (by Mr. Wood), 2 p.m.; Royal London Ophthalmic, 11 a.m.; Royal Westminster Ophthalmic, 1½ p.m.

Obstetrical Society, 8 p.m. Annual Meeting—Election of Officers; President's Address. Dr. A. W. Edis, "On the Necessity for Caution in the Employment of Intra-Uterine Stems." Dr. W. S. Playfair, "On Puerperal Thrombosis." Dr. J. J. Phillips, "On a Rare Form of Uterine Lesion during Pregnancy."

Royal Microscopical Society, 8 p.m. Mr. Alfred Sanders, "Further Notes on the Zoospores of Crustaceæ, &c."

8. Thursday.

Operations at St. George's, 1 p.m.; Central London Ophthalmic, 1 p.m.; Royal Orthopædic, 2 p.m.; University College, 2 p.m.; Royal London Ophthalmic, 11 a.m.; Royal Westminster Ophthalmic, 1½ p.m.

Harvian Society, 8 p.m. Annual Meeting—Election of Officers and Council for 1874; Reading of the Council's Annual Report; the President's Address; Casual Communications.

Hunterian Society, London Institution (Meeting of Council, 7½ p.m.), 8 p.m. Mr. Hutchinson, "When and How should Mercury be Used for the Cure of Syphilis."

Royal Institution, 3 p.m. Prof. Tyndall, "On the Motion and Sensation of Sound" (Juvenile Lectures).

9. Friday.

Operations at Central London Ophthalmic, 2 p.m.; Royal London Ophthalmic, 11 a.m.; South London Ophthalmic, 2 p.m.; Royal Westminster Ophthalmic, 1½ p.m.; St. George's (ophthalmic operations), 1½ p.m.

Clinical Society, 8½ p.m. Dr. Douglas Powell, "On some Cases illustrating the Rheumatic Origin of Aneurism of the Aorta." Dr. Cayley, "Case of Hæmoptysis." Mr. Brudenell Carter will show a Patient Cured of Sarcoma of the Orbit by Extirpation and Cautery.

VITAL STATISTICS OF LONDON.

Week ending Saturday, December 27.

BIRTHS.

Births of Boys, 879; Girls, 823; Total, 1702.
Average of 10 corresponding years 1863-72, 1866·9.

DEATHS.

	Males.	Females.	Total.
Deaths during the week	773	767	1540
Average of the ten years 1863-72	773·1	768·6	1541·7
Average corrected to increased population	...	...	1696
Deaths of people aged 80 and upwards	...	...	86

DEATHS IN SUB-DISTRICTS FROM EPIDEMICS.

	Population, 1871.	Small-pox.	Measles.	Scarlet Fever.	Diphtheria.	Whooping-cough.	Typhus.	Enteric (or Typhoid) Fever.	Simple continued Fever.	Diarrhœa.
West	561359	...	18	1	...	5	...	1	1	1
North	751729	2	34	2	...	13	2	3	2	3
Central ...	334369	...	17	1	...	8	2	3	...	...
East	639111	...	16	7	...	16	1	4	1	2
South	967692	...	22	6	3	11	2	5	1	1
Total	3254260	2	107	17	3	53	7	16	5	7

METEOROLOGY.

From Observations at the Greenwich Observatory.

Mean height of barometer	29·942 in.
Mean temperature	42·9°
Highest point of thermometer	51·7°
Lowest point of thermometer	33·0°
Mean dew-point temperature	39·2°
General direction of wind	W.
Whole amount of rain in the week	0·17 in.

BIRTHS and DEATHS Registered and METEOROLOGY during the Week ending Saturday, December 27, 1873, in the following large Towns:—

Boroughs, etc. (Municipal boundaries for all except London.)	Estimated Population to middle of the year 1873.*	Persons to an Acre. (1873.)	Births Registered during the week ending Dec. 27.	Deaths Registered during the week ending Dec. 27.	Temperature of Air (Fahr.) Highest during the Week.	Lowest during the Week.	Weekly Mean of Mean Daily Values.	Temp. of Air (Cent.) Weekly Mean of Mean Daily Values.	Rain Fall. In Inches.	In Centimetres.
London	3356073	43·0	1702	1540	51·7	33·0	42·9	6·06	0·17	0·43
Portsmouth ...	118280	12·4	59	51	...	...	...	...	...	...
Norwich	81677	10·9	28	25	50·2	33·0	41·8	5·44	0·19	0·48
Bristol	189648	40·4	103	87	50·3	33·4	44·1	6·73	0·35	0·89
Wolverhampton ...	70084	20·7	39	33	52·1	32·4	42·1	5·62	0·37	0·94
Birmingham ...	355540	45·4	228	203	...	...	...	...	...	...
Leicester	102694	32·0	91	34	51·5	31·0	41·4	5·22	0·20	0·51
Nottingham ...	89557	44·9	77	51	51·7	33·7	42·5	5·84	0·19	0·48
Liverpool	505274	98·9	276	245	52·5	30·0	44·1	6·73	0·36	0·91
Manchester ...	354057	78·9	238	189	...	...	...	...	...	...
Salford	130468	25·2	81	63	53·5	30·2	42·6	5·89	0·22	0·56
Oldham	85141	20·4	59	47	50·0	...	...	...	0·29	0·74
Bradford	156609	23·8	152	64	52·0	34·0	43·9	6·61	0·34	0·86
Leeds	272619	12·6	151	164	54·0	35·0	45·2	7·33	0·18	0·46
Sheffield	254352	11·1	159	132	52·5	34·5	44·2	6·78	0·15	0·38
Hull	128125	35·9	88	42	50·0	32·0	41·1	5·06	0·12	0·30
Sunderland ...	102450	31·0	102	44	...	...	...	...	...	...
Newcastle-on-Tyne	133246	24·9	78	94	52·0	32·0	43·6	6·44	0·15	0·38
Edinburgh	208553	47·1	108	80	...	...	...	...	...	...
Glasgow	498462	98·5	356	266	50·4	28·9	42·1	5·62	0·63	1·60
Dublin	314666	31·3	105	102	54·2	29·5	43·6	6·44	0·22	0·56
Total of 21 Towns in United Kingd'm	7507575	34·5	4280	3556	54·2	28·9	43·0	6·11	0·26	0·66

At the Royal Observatory, Greenwich, the mean reading of the barometer last week was 29·94 in. The highest was 30·20 in. on Wednesday evening, and the lowest 29·62 in. on Saturday at noon.

* The figures in this column for the English towns are the numbers enumerated in April, 1871, as finally revised at the Census Office, and raised to the middle of 1873 by the addition of two years and a quarter's increase, calculated on the rate which prevailed between 1861 and 1871. The population of Dublin is taken as stationary at the revised number enumerated in April, 1871.

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ORIGINAL LECTURES.

CLINICAL LECTURE
ON A CASE OF CARCINOMA OF THE LIVER AND LEFT SUPRA-RENAL CAPSULE, WITH ASCITES.

By HENRY THOMPSON, M.D., F.R.C.P.,
Physician to the Middlesex Hospital.

GENTLEMEN,—W. D., aged 49, a remarkably large and powerful man, first a soldier and latterly a police-sergeant, was admitted on April 30 last. The health of his family is good; his own antecedents had been exceedingly good up to November, 1872. His height was six feet, and his weight, when in condition, sixteen stone. He had suffered indeed from small-pox and scarlet fever when a child, and from fever and ague when on service in the Crimea, but during the whole period of his duty in the police force, comprising twenty-one years, he was never invalided for a single day. In November, 1872, while engaged in taking a prisoner into custody, he received a blow on his left side and was severely shaken; in a few days afterwards he began to spit blood in small amount, but never left off duty. At the same time he had most inordinate thirst, drinking several quarts of water during the night, and passing large quantities of light-coloured urine. For some weeks before admission he had been rapidly losing flesh and strength, and for a corresponding period he had suffered from severe pangs shooting down both legs from time to time, and from pain over the epigastrium and hypochondria and in the left lumbar region. He had always been a temperate man.

On Admission:—Face bloated, eyelids puffy, conjunctivæ œdematous, cheeks mottled and streaked with capillary congestion. Free resonance over the whole front of the thorax; dulness at both posterior bases, where the breathing is weak; sonorosibilant râles everywhere. Area of heart's dulness apparently curtailed by overlapping lung; first sound at apex roughened; impulse in fifth interspace half an inch to inner side of nipple-line, slightly undulating and diffused, occasionally intermittent. Abdomen voluminous, everywhere freely fluctuating; resonant in a high degree over a large space in the neighbourhood of the umbilicus, which is unfolded and flattened; dull in the flanks and along the pubes; dull also over the epigastrium and hypochondria, where the sense of displacement is readily elicited by strong and sudden pressure with the fingers. The lower margin of the liver can be distinctly felt reaching within two inches of the umbilicus, firm and rounded, in parts embossed. Legs highly œdematous; considerable œdema of scrotum and penis. Several spots of extravasation over trunk and arms. Urine of specific gravity 1010, non-albuminous.

May 5.—Less œdema; less distension of abdomen; fluctuation now limited to flanks. The breathing is exceedingly weak everywhere, and numerous fine crackling sounds are audible, especially at the right base, where these sounds present a near approach to the characters of friction.

From this date to May 10 there was considerable improvement: the abdomen continued to diminish, while the urine increased and became very abundant. During the whole period from the beginning he has been treated with hydragogues and diuretics, digitalis, squill, copaiva, and compound jalap powder.

May 11.—Passed a good night, and looks more comfortable. At 9 p.m. he still presented the same appearance of comparative comfort. At 10 p.m., however, he seemed to be growing weaker, and to suffer from shortness of breath. At 11 p.m. the breathing became very laborious; loud bronchitic râles were audible, and distinct bronchial fremitus was felt extensively throughout the chest.

12th.—1.30 a.m.: Surface of body and extremities cold and clammy; pulse past counting. Died at 2.45 a.m.

Autopsy (from Mr. Sidney Coupland's report).—The abdominal cavity contained nearly two pints of dark sanguinolent fluid; the intestines were much distended with flatus. The dura mater was unusually adherent to the brain along the middle line; the brain-substance appeared to be normal; the organ was very large, weighing sixty-one ounces and a half. The left pleural cavity contained eleven ounces of straw-coloured fluid; there were also one or two ounces on the right side, and a few ounces of serum in the pericardial sac. The heart was universally enlarged and hypertrophied—more markedly, however, in its left chambers; it weighed twenty-one ounces and three-quarters. The endocardium was somewhat opaque, and the muscular papillares in the left ventricle inordinately developed, almost creaking under the knife. There were some patches of atheroma on the mitral valve, the free border of which was irregularly thickened; all the valves were competent. The right lung was slightly compressed in its lower lobe. The right pulmonary pleura was covered by small opaque elevations, appearing under the microscope to be solely made up of fibrinous material, with corpuscular elements. Besides these, there were a few sparsely distributed nodules, averaging a pea in size, white and firm, limited to the pleura, and evidently cancerous in nature. The lung was nowhere freely crepitant; its tissue was tough, much congested, and œdematous, the anterior margins being emphysematous. The bronchial tubes were full of frothy secretions, and the lining membrane thickened, villous, and injected. On the left side the pulmonary pleura presented even more extensively the fine soft granulations above described, but only a small number of the cancerous nodules. The posterior two-thirds of the upper lobe were solidified and in a state of grey hepatisation; the rest of the lung was highly œdematous. The liver was immensely enlarged, weighing twelve pounds five ounces. Both lobes were equally infiltrated with cancerous nodules and masses in every variety of shape and size; one or two of the larger masses on the lower surface appeared to have been ruptured recently; each mass presented a white encephaloid appearance, and was surrounded by a zone of hæmorrhagic infiltration. Kidneys large, congested and indurated. Right supra-renal capsule healthy; left supra-renal capsule enlarged to nearly three times the size of the corresponding kidney, coarsely lobulated on the surface, and invested by a very vascular membrane. The entire capsule measured six inches from above downwards, and four inches and three-quarters in its broadest diameter from before backwards; it weighed thirty ounces. On section the mass could be distinctly separated into a smaller internal portion, and into an investing or cortical portion. The central substance was translucent in some parts, opaque and yellow in others, and ranged about two inches and three-quarters in every direction. The cortical substance was soft and medullary in appearance, and in one part broken down. Spleen enlarged and softened; mucous membrane of stomach coarsely mammillated; intestines healthy; no notable enlargement of mesenteric or retro-peritoneal glands.

Gentlemen,—The man whose organs I have just laid before you, and whose case I have sketched, was one of the finest specimens of manly development it was ever my lot to witness. It would appear, also, that his constitutional strength must have been quite on a par with his enormous muscular power, when we take into account the many eventful years he passed in the Crimea, and his long service in the dangerous duties of a police-sergeant. I allude in passing to these points mainly by way of illustrating a well-known truth, that strength of muscle and hardihood of constitution are no safeguards whatever against the invasion of carcinoma, nor, indeed, afford the slightest presumption against the possibility of its occurrence. I have another motive in making this allusion. Immense muscular development, and a life spent in hard unceasing exercise, go a long way towards accounting for the extraordinary size of the heart. In no inconsiderable degree, however, I believe the heart is proportioned to the man; the volume of its muscular fibre and the capacity of its chambers in great measure only represent the magnitude of the muscular system at large, and the grand scale of the entire framework. After due allowance on this score, all the residue of real hypertrophy may be easily and naturally set down to the long-continued strain of a most laborious life. It is true that the *primâ facie* appearances of hypertrophy are most conspicuous in the left ventricle; there is nothing, however, very remarkable in this on any hypothesis, nor are they limited to that ventricle alone; if they were so absolutely, my explanation would fall to the ground, and we should be compelled to seek in a diseased kidney the first foundations of the hypertrophy. The kidneys, however, were not notably diseased; or, at any rate, they showed no traces of long-standing disease, which alone would account for the phenomenon to be explained. Let it, however, be distinctly understood that the heart here presented to you offers a fair approximation to the type of heart you must expect to find in those who die of slow granular degeneration of the kidney. Let it be

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understood, also, that I am not denying all disease—or, at least, disorder—in the kidney. Apparently there was enough of the one or the other to account for the swelling of the eyelids and the œdema of the conjunctivæ, but assuredly not enough to explain the existence of a heart like this. Lastly, let us not ignore the special alterations discovered in the heart's structures, the opacity of the endocardium, and the thickening and atheroma of the mitral valve. It is only fair to take them into the reckoning, although they will not help us materially; they may have, indeed, impaired the natural purity of the first sound at the apex; but neither in themselves, nor in anything they imply of antecedent change, can they be regarded as standing in any close relation to the hypertrophy.

With respect to the several organs involved in the carcinoma, you may naturally ask me whether it is the liver, the supra-renal capsule, or the pleura that is entitled to priority of place as the starting-point in the train of mischief. Possibly it might strike you that the determining cause of the cancer may well have been the accident of November, 1872, the severe shaking, and in particular the blow received on the left side. Injuries and irritations have often been quoted among the recognised causes of carcinoma, and on this assumption you might pronounce in favour of the supra-renal capsule as the seat of primary contamination. Unfortunately, modern researches, as far as they have gone hitherto, seem to have shown conclusively that the supra-renal capsule is never attacked by carcinoma primarily; in other words, they have so far discovered no unequivocal example of carcinoma in this organ standing alone. You are bound, therefore, to set aside the supra-renal capsule, and, inasmuch as the pleura for many reasons must come last in the series, you arrive negatively and by exclusion at the liver—the very organ which would at once positively present the strongest claim to the foremost place. Not that I would altogether ignore the influence of the blow: it may have been instrumental in determining the current of secondary contamination, so that it should set towards the supra-renal capsule in preference to any other organ. Strangely enough, the blow and the shaking seem to have been really instrumental in provoking a near resemblance to a brief and abortive attack of polyuria or diabetes insipidus, a disease known to have followed concussions or injuries. By way of parenthesis, it may be well to remind you that bronze skin or Addison's disease has no connexion with carcinoma, nor, indeed, with any other pathological change save the development of fibro-cellular tissue and its transformation into caseous matter. There was no trace of discoloured skin or mucous membrane in our patient.

We have discussed the origin of the malady. What determined the issue? It is singular that within the present year I have had to lecture on three cases of abdominal carcinoma, in none of which did the sufferer die the death of carcinoma properly speaking—death by inches, death by prolonged distress, by slow inaction, by exhaustion and emaciation. On the contrary, two of the number were at the onset in the possession of a fair amount of strength, and all died in the most rapid and unforeseen manner by acute engorgement of the lungs. One died in twenty-six hours from the invasion of the concluding chest-attack, and in him I ascribed the cause of death at the time in large measure to collateral pulmonary hyperæmia. W. D. died in five hours from the commencement of the final severe attack upon the lungs. Is it possible to ascribe his death in any appreciable measure to the same cause—collateral hyperæmia? I am of opinion that it must be so ascribed in some degree. The right lung was certainly curtailed in its proportions by encroachment on the part of the liver, and the respiratory apparatus on the left side was to some extent replaced by fluid in the pleural cavity. This, however, cannot possibly be all. The exclusion of pulmonary blood from one part, and its resulting accumulation in another, cannot, in W. D. at least, have been sufficient to account for death. Perhaps in all three examples considerable stress should be laid on another element of danger—the cancerous cachexia itself—the degradation of the blood and the wasting of the powers of life, which render the system vulnerable at all points and expose a man to jeopardy from attacks which would have been innocuous in ordinary circumstances. Of course I don't mean to say that fatal engorgement of the lungs is a thing to be positively apprehended in all cases of carcinoma in general, or in carcinoma of the abdominal organs: you must bear in mind that two of my patients were already suffering from chest complaints, and under such conditions the possibility of danger arising from this source may fairly be entertained. Anyhow, it is a striking and suggestive coincidence that all these men should have died in the end of lung disease; it arouses the suspicion that life in cancer, though protracted as a rule, really hangs upon a thread, and may be cut off at any moment. In this connexion, we may well wonder at the extreme tenacity of life displayed by carcinoma wherever it is suffered to hold the even tenor of its way without let or hindrance, as contrasted with the swiftness of its downward career under the influence of intercurrent disease in general—certainly under the influence of chest disease.

I have one more point to discuss—the coexistence of fluctuation and free resonance over the same parts of the abdomen,—a sign well exemplified in W. D., and one which I have several times recently demonstrated to you at the bedside (I hope convincingly, as far as the fact is concerned). I will now endeavour to explain what I believe to be the mechanism of the fact, and in so doing I shall be obliged to enter into details; but I make no apology for this, inasmuch as, judging from the ideas ordinarily entertained by gentlemen in the wards, I should say that there must be something in the statements of the authorities on ascites, if not exactly erroneous, at all events obscure, unsatisfactory, and perhaps positively misleading. The general idea in vogue among students appears to be that there is a necessary antagonism between fluctuation and free resonance; that, in fact, they cannot coexist in the same parts. I trust I have shown practically that they can and do often co-exist. Let us examine the point *ab initio*. You are all familiar with the cylindrical contour of the intestines as they are described and figured in text-books and diagrams, and as they are seen bodily in dissections; and this you may, perhaps, regard as their natural shape. It may be so in some sense, but assuredly it is not their normal and physiological shape, it is not the shape in which they can by possibility exist in conformity with physical laws within the abdominal cavity of a living healthy man. In health, and even in disease so long as there is neither fluid nor air within the peritoneal sac—nothing, in fact, to fill the interstices which must intervene between the adjoining convexities of two or more cylinders, given they are to maintain their cylindrical form,—it is simply impossible for them to maintain that form. Consequently the walls of the intestine are flattened, collapsed, or otherwise deranged in symmetry by close apposition to each other, so that the area of a transverse section represents an irregular polygon, and not a true circle. Now let there be a somewhat scanty accumulation of fluid in the peritoneal cavity, and what is the consequence? You will have—in the ordinary recumbent posture—a region of percussion-dulness and fluctuation more or less distinctly expressed in the flanks, and you will have a region of free resonance without fluctuation over the superior strata. So far there has been no material deviation from the physiological shape of the intestines; they are all floating above the water-level—folded and packed one upon another, much as in the natural state,—the fluid is shallow enough and the mesentery is long and lax enough to allow of this arrangement. You see my terms are all throughout this discussion adapted to the small intestines: this is for the sake of simplicity; but remember the facts themselves are equally true of the large intestines, in so far as they are free to float, and not held immovably down by their respective mesocola. Now let the fluid go on accumulating until there shall be great but not extreme tension of the abdomen, and what is the consequence? The surfaces of the bowel are no longer under the physical necessity of accommodating themselves to each other by close apposition over extensive areas; throughout the peritoneal cavity there is "water, water everywhere"; the intestines unfold, and assume the familiar cylindrical contour, and the water pervades and fills the crevices between the convolutions. Under these circumstances, you will have below, in the flanks, fluctuation with dulness absolute or comparative; above, in the epigastrium and around the umbilicus, fluctuation and free resonance intimately combined and often extensively diffused. In other words, you have in these superior regions both fluid and bowel beneath your finger, in close proximity to the wall of the abdomen. Either they are disposed in alternating succession exactly at the summit-level, if the mesentery at its full stretch be just long enough for this disposition; or, if the mesentery keep the bowel below the surface, the lamina of overlying fluid is so thin that practically the percussion-note remains unimpaired. Lastly, let the fluid still increase until the tension becomes immoderate. In this case, unless the mesentery be unnaturally long, the bowel is far removed from the surface by a thick overlying stratum of fluid; there is dulness and fluctuation everywhere over the abdomen; and

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if there be a trace of resonance anywhere, it will be under the walls of the thorax. Of the foregoing conditions the second is the most important; it is the commonest that falls under observation, for it implies just that degree of distension which compels a man to seek medical advice. The condition below might pass unnoticed or unregarded; the condition beyond is almost incompatible with life, or at least unbearable. It is, however, to the physical signs of the second condition that I wish now particularly to bespeak your attention. I mean the concurrence of fluctuation and free resonance in the same parts, denoting the close contiguity of bowel and fluid to the very spot examined; the fluid in absolute contact with the wall of the abdomen above, the bowel either equally in contact or immediately below. I am not wasting your time in idle speculations. You may verify the point for yourselves on an emaciated living subject. The lightest stroke at the shortest distance will in the cases described transmit the wave across the resonant area from finger to finger. If you are not satisfied with this, go to the dead-house, and having previously ascertained on the body the existence of the associated signs in question, watch well the first incision made into the abdominal cavity. The instant the knife penetrates the peritoneum, there will be a rush of fluid from the sac, and a presentation of the intestine in its rounded form at the opening. Both are seen to be directly underlying the surface of the abdomen together. The wave is generated at the spot, and not propagated from below.

Whatever the value of my explanation may be in its details, the main facts are assuredly true, and the corresponding physical signs are well worthy of attention at the bedside for the following reasons:—In the first place, they prevent us from under-estimating the amount of fluid in ascites; secondly, they render the diagnosis at once swift and sure, involving no inconvenience to physician or patient. It is but the work of a moment. Given the combination of signs aforesaid, you know at once that the fluid underneath your finger is in the peritoneal cavity, for there alone could the conditions exist that give rise to this combination. The only drawbacks or sources of fallacy are two. You might by accident fix your finger on the border-line between the intestines and an ovarian sac, and so might elicit resonance from the one and fluctuation from the other. This might conceivably so happen—perhaps once in fifty times, perhaps once in a hundred examinations. It is, however, the easiest thing in the world to deal with this difficulty—you have only to enlarge the area of your manipulations by taking a circle of a few inches in diameter, and the fallacy vanishes altogether. Again, it is just conceivable that an ovarian cyst might contain gas, the product of decomposition. Such things have occurred and might occur again, but how often? Perhaps once in three hundred examinations. For all practical purposes, therefore, the last assumed contingency may be disregarded—partly because it is so rare and exceptional; partly because its presence is sure to be conspicuously disclosed by accompanying symptoms of the gravest character. The test therefore stands unimpeached, whenever and wherever you are able to realise its evidence. In W. D. the fluid rapidly subsided, and in a few days reached so low a level that the associated signs in question, so strikingly exemplified in the first instance, disappeared entirely from the uppermost parts, and the experiment was useless.

THE annual meeting of the Governors of the Royal National Hospital for Consumption and Diseases of the Chest, Ventnor, Isle of Wight, will be held at the offices, 20, John-street, Adelphi, W.C., on Tuesday, January 13, to receive the report of the General Committee, the statement of accounts, and the medical report, all for the past year, 1873; to elect officers for the ensuing year; to consider certain alterations of the laws; and to transact other business. The chair will be taken at 4 b'clock p.m. precisely, by the treasurer, Frederick H. Leaf, Esq.

THE CHOLERA IN PRUSSIA DURING 1873.—The official journal, the *Staats Anzeiger*, has just published a statistical account of the ravages of the cholera in Prussia during 1873. The total number of cases occurring in the nine provincial districts in which it appeared amounted to 45,589, with 23,242 deaths. The province of Prussia was that which suffered most, there being 25,261 cases, with 13,268 deaths. Next comes Prussian Saxony, with 10,246 cases, and 4834 deaths. In Hesse-Nassau there were only 57 cases; and the Rhenish provinces were entirely exempt.

ORIGINAL COMMUNICATIONS.

OUTLINE OF OBSERVATIONS AND INVESTIGATIONS ON YELLOW FEVER.

By JOSEPH JONES, M.D.,
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No. II.

(*Continued from page* 6.)

MODIFICATIONS OF THE PHENOMENA OF YELLOW FEVER BY PRECEDING DISEASED STATES OF THE SYSTEM.

THE most potent cause of derangement of those who reside within the yellow-fever zone is the action of malaria, which not only manifests its effects in the causation of the various forms of intermittents, remittents, pernicious and hæmorrhagic paroxysmal fevers, which differ materially in their origin, symptoms, and pathology from yellow fever, but also, without the active manifestation of these forms of fever, in the slow destruction of the coloured corpuscles, derangement of the liver, enlargement of the spleen, attended with a pale, sallow, sickly hue, infiltration of the cellular tissue, dyspnœa, palpitations, derangements of the blood and nervous system, and depressions of the muscular and nervous forces.

Whilst those who have been subjected for long periods to the action of malaria appear to be less liable to yellow fever, it is, however, true that the progress of this disease is modified by the changes induced in the blood and organs by the preceding action of the malarial poison; and the lesions after death from yellow fever differ to a certain extent from those observed in subjects freshly arrived from cold climates without being previously subjected to the action of marsh miasm. And in every epidemic of yellow fever the malarial influence is so powerful in most of the cities of the tropical, sub-tropical, and temperate regions of North and South America that it is never entirely suspended, and not only in many cases induces characteristic changes before the specific action of the yellow fever poison, but also is frequently engrafted upon the weakened convalescents from yellow fever, thus altering the farther progress of such cases, and inducing changes in the organs entirely different from those characteristic of yellow fever.

In this continuous and preceding action of the malarial or paludal poison, and in the frequent intermingling of the two diseases, we have an explanation of the apparently contradictory statements of observers as to the characteristic symptoms and lesions of yellow fever. It is evident, therefore, that no observer is competent to the elucidation of the pathology of yellow fever who is not at the same time familiar with the changes induced by the various forms of paludal fever and malarial poisoning.

If we accept without reserve the doctrine advocated by John Hunter,(a) and ably supported by Joseph Adams,(b)—that "No two actions can take place in the same constitution, or in the same part, or at one and the same time; no two different fevers can exist in the same constitution, no two local diseases in the same part at the same time,"—then the question of the modification of malarial fever by yellow fever, and of the engrafting of the one upon the other, must be definitely settled in the negative.

We have elsewhere shown by an extended discussion(c) of this question that whilst, when two poisons representing two distinct exanthemic diseases act simultaneously upon the human being, the most obvious pathological phenomena excited by the poisons will not occur simultaneously, but in succession—the one poison retarding the action of the other: the one producing its cycle of changes, whilst the other remains "*dormant*," as it were, during the action of the first, and immediately after the changes induced by this cease, causing in turn its own distinctive effects,—at the same time,

(a) "Works of John Hunter," edited by James F. Palmer, London, 1837. Vol. ii., "Treatise on Venereal Disease," p. 132; vol. iii., "Treatise on the Blood," pp. 3-5; vol. i., "Principles of Surgery," pp. 312, 313.

(b) "Observations on Morbid Poisons, Chronic and Acute," London, 1807, second edition, pp. 21-23.

(c) "Researches in Spurious Vaccination, or the Abnormal Phenomena accompanying and following Vaccination, in the Confederate Army during the recent American Civil War, 1861-65," by Joseph Jones, M.D., formerly Surgeon in the Provisional Army of the Confederate States, pp. 213 pp. 33-59.

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it must be admitted that the character and cause of the specific eruptive diseases are greatly modified by such altered states of the constitution as exist in scurvy, scrofula, and secondary syphilis. In that class of diseases represented by constitutional syphilis, scurvy, and malarial poisoning, the blood is at fault, the nutrition is perverted, and the course and products of diseased actions are correspondingly modified.

During the recent war I embraced an opportunity for observing the effects of engrafting small-pox upon patients broken down by exposure, privation, and the exhausting effects of hospital gangrene and pyæmia.

In the month of September, 1864, small-pox spread from the ward devoted to the treatment of this disease to the Empire Hospital, which had been filled with cases of hospital gangrene and pyæmia gathered from the general hospitals attached to the Confederate Army operating in and around Atlanta. The small-pox ward was situated in a pine grove about 300 yards in the rear of the gangrene hospital; and without doubt communication was kept up between the different wards. Several of the nurses of the gangrene hospital were first attacked, and the disease appeared to have been communicated from them to the patients under their charge who were suffering with hospital gangrene and pyæmia.

The following case arrested my attention as clearly illustrating the engrafting of small-pox upon a system reduced by hospital gangrene:—

Case 4.—J. S. J., Company K, 19th Alabama Regiment, aged 21, wounded at the siege of Atlanta on July 22, 1864. Gunshot wound of right leg, which was amputated on the field of battle at the lower third of the thigh. Hospital gangrene attacked the stump, and the patient was admitted into the Empire Hospital on September 22. Nitric acid arrested the progress of the gangrene for a time, but it returned again, and the strength of the patient was gradually reduced by the absorption of the gangrenous matter and from an exhausting diarrhœa. On November 2, whilst the patient was exceedingly feeble and nervous, and manifesting the symptoms of pyæmia —viz., chills, icterus, and vomiting of dark green matters,— the eruption of varioloid made its appearance. The pustules, which were in considerable numbers, but small in size, progressed regularly, and on November 6 presented all the characteristics of the true variolous eruption, with the round form and umbilicated centre. This patient had a good vaccine scar, and the smallness of the pustules appeared to be due to the fact that the system was partially protected by vaccination. The patient died during the night of the 6th, apparently from the effects of the gangrene, pyæmia, and exhausting diarrhœa.

None of the pustules in the preceding case presented any appearance of hospital gangrene; and, so far as I was able to learn, both during my investigation and subsequently, no case occurred in the gangrene hospital in which moist gangrene attacked the eruption of small-pox or varioloid.

It was clearly established that small-pox would attack patients suffering with gangrene, and even pyæmia.

In an interesting case which occurred in my private practice immediately after the close of the recent struggle for the rights of self-government in the Southern States, acute dysentery of a severe form was superseded by typhoid fever, which was well marked in its symptoms and progress by low muttering delirium, diarrhœa, tympanites, lenticular rose-coloured spots, and painful enlargements of the parotid glands. As soon as well-marked typhoid symptoms were manifested, all the symptoms of acute dysentery vanished, and the patient passed without pain or straining the ordinary bilious stools of typhoid fever, and the smallest doses of purgative medicine, either mercurial or saline, acted with great and dangerous violence, producing copious "pea-soup" stools.

The patient passed safely through the typhoid fever, and even the parotid glands subsided without suppuration; but in the third week after the appearance of the typhoid fever, when the patient was apparently doing well, the dysentery returned with severe straining, and the bloody and mucoid discharges of acute dysentery, and the patient died in consequence of the return of the original disease.

I have also observed that typhoid fever was often engrafted upon malarial fever amongst the Confederate troops serving in malarious districts, and that during its active stages it presented the usual continuous fever, with cerebral disturbance, agitation of the muscles, tympanites, diarrhœa, and lenticular rose-coloured spots.

the po soon as the typhoid fever was established, all signs of be enterta periodicity disappeared, and the torpid liver of malarial fever became active, the sallow hue of malarial fever became clear from the increased action of the liver, the torpid bowels loose and tympanitic; and after the disappearance of the symptoms characteristic of typhoid fever, the original malarious periodic fever reappeared, with its cold and hot stages recurring at regular intervals, and inducing torpor of the liver and bowels, and the sallow malarial hue.

As far as my observation extends, in like manner, when yellow fever is engrafted upon a system previously under the influence of the malarial poison, it establishes its own peculiar train of symptoms, which are distinct from those of malarial fever, and may be clearly recognised. When, however, the cycle of changes excited by the yellow-fever poison has been completed, then the malarial poison may excite its characteristic recurring paroxysms, and change the yellow, fatty liver of yellow fever into the dark slate-and-bronze liver of malarial fever, loaded with dark pigment granules.

Whilst we know but little with reference to the concurrent action of the poisons of these two diseases upon the same system, and know nothing whatever of the state and mode of existence of that poison which "lies dormant" while the other is acting, at the same time we shall endeavour to illustrate the differences and relations of the symptoms and lesions by actual observations.

(*To be continued.*)

ON A CASE OF MITRAL STENOSIS,

WITH CARDIAC HYPERTROPHY AND DILATATION, MANIFESTED BY A PRESYSTOLIC MURMUR.

By ARTHUR ERNEST SANSOM, M.D., M.R.C.P.,

Physician to the Royal Hospital for Diseases of the Chest, and the North-Eastern Hospital for Children; Vice-President of the Medical Society of London.

James B., aged 9, was brought as an out-patient under my care at the North-Eastern Hospital for Children, on October 5, 1872. He manifested pain at the heart-region, distressed breathing, and great pallor of surface. He had been suffering from rheumatic fever for a fortnight, and had had an attack ten months previously. The heart's rhythm was greatly disturbed, and a blowing murmur was heard at the apex, which was at first thought to be systolic. He was admitted as an in-patient on the 9th; then, although the rhythm was still much disturbed, it was obvious that the cardiac murmur preceded the systole, and was heard most intensely just externally to the situation of the normal apex. The boy suffered much pain in the epigastrium and in the right shoulder. Præcordial dulness gradually extended, and on October 30 a soft to-and-fro friction-sound was heard about the apex. On November 2, distension of the pericardium had attained its maximum, dulness reaching above to the upper border of the third rib, right to a line outside the right border of the sternum, left about an inch externally to the nipple. From this time absorption rapidly took place, and on November 6 dulness occurred only over the same area as on admission; the presystolic was the only murmur heard. There was no marked thrill felt over the heart-region, but a "cantering" rhythm was manifest. It was noted that "the blowing bruit at the apex commences immediately after the aortic diastolic sound, and is terminated by the sharp thud of the impulse; it is lost over the right cavities and the base; here the sounds are normal." The boy improved considerably, and, after a stay in the Convalescent Hospital, returned to his home. Early in February, 1873, after a fall downstairs, he became very ill again, and was brought under my care.

On February 19 it was noted that the signs of cardiac hypertrophy had greatly increased: the thorax was bulged over the heart-region, the apex-beat was below the seventh rib, and the murmur was of the same general character as before, but the second sound at the base was very markedly accentuated. He had several attacks of dyspnœa and pain, accompanied with only a very slight œdema and no albuminuria. There was no cyanosis, but extreme pallor of the surface. On ophthalmoscopic examination the retinal arteries were seen to be very fine, whilst the veins were disproportionately large. He died on November 9, 1873.

The treatment adopted was generally the administration of bicarbonate of potass with quinine. Digitalis in four-minim doses of the tincture many times afforded him great

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relief, but the most marked benefit was obtained in the later stages by the application to the chest of poultices made of the steeped digitalis leaves.

Post-mortem examination showed a large congested liver, the other viscera of the abdomen being moderately congested. Lungs were fairly crepitant and healthy. The pericardium was adherent by firm bands to all the adjacent parietal structures and to the heart-muscle. The heart could only be removed from the body by cutting away lung-tissue and diaphragm. It was greatly hypertrophied, weighing twelve ounces, and occupying a bulk equivalent to thirteen fluid ounces. The whole left side was lined by a leathery, much-thickened endocardium; the left auricle was of funnel shape, its capacity nearly one fluid ounce, its length from its upper part to its termination in the orifice of the mitral valve nearly 2½ in., its width 1⅜ in., the thickness of its muscular wall varying from ⅛ in. to ¼ in. The curtains of the mitral valve were united to form a funnel-shaped bag, the orifice of which admitted the end of the forefinger. Diameter of the orifice, ¾ in.; its border was slightly roughened. The left ventricle was large and dilated, its capacity being more than 1½ oz., its greatest length 2⅞ in., width 1⅛ in.; greatest thickness of wall ⅞ in., least ½ in. The right cavities presented no morbid appearances.

This case is interesting not only as adding another to the list of recorded examples illustrating the diagnostic value of the presystolic murmur, but as showing its relation to complications—especially of extreme cardiac hypertrophy—not commonly associated with it. From the first time that facility was afforded for sufficiently careful examination, it was held as established that the murmur heard occupied the period of the auricular contraction, and that it indicated narrowing of the mitral orifice. The great hypertrophy of the muscular wall of the left auricle, as seen at the autopsy, rendered the causation of the murmur heard during life easily intelligible upon the principles laid down by Gairdner and others. The proof of the auricular origin of the presystolic murmur appears to me to be as complete as possible—the sound is mitral by localisation; it occupies the period of the rhythm during which it is established by physiologists that the auricle contracts; it ceases at the time of the complete ventricular contraction. The unvarying testimony of post-mortem records is that there is a strong muscular auricle, with an obstruction by narrowing of the valve-orifice to an outlet into the ventricle—physical conditions which are well known to give rise to cardiac murmurs in other situations. I am not disposed to think that narrowing of the mitral outlet is always accompanied by a presystolic bruit, but I consider that the evidence is very strong to the conclusion that wherever there is a presystolic bruit there is contraction of the mitral orifice. I think its recognition is of great practical importance, for it enables us to class by themselves a series of cases differing in clinical history and prognosis from the cases which manifest mitral regurgitation.

It seems to me highly probable that examples of presystolic bruit are much more common than are supposed, and that the sound is confounded with a systolic murmur. It will be a great gain if practitioners will take increased care to localise, in point of time, the cardiac murmurs which they observe. As regards the method of doing this, I may venture to give the following hints:—Having satisfied yourself that there is a bruit localised at the apex, observe whether the murmur is sharply terminated by the impulse or continued through it. This cannot always be determined by the ear alone; the period of the impulse must be timed. For this purpose I quite agree with Dr. Fagge, that the simultaneous observation of the radial pulse is most fallacious. Placing the finger on the carotid pulse is much better; but I consider that the best plan, wherever it is practicable, is to apply the tip of the finger lightly over the region of the heart-apex as nearly as the position of the stethoscope will admit. It is then easy to determine whether the bruit heard precedes the systole or is synchronous with it—in other words, whether it is presystolic or systolic.

There is still some difference of opinion as to the proper nomenclature of these murmurs. Some observers even now prefer the term "diastolic," to which there appears to me the strongest possible objection. Others, with Dr. Gairdner, would apply the term "auricular systolic." The propriety of the term will, I consider, necessarily vary accordingly as it is employed for clinical demonstration or to express pathological causation. For the latter purpose, Dr. Gairdner's term, "auricular systolic" is perfectly appropriate; for clinical demonstration, however, it would be better to adopt one which should fix the period of the murmur without hypothesis. I do not think that the use of the words "systolic" and "diastolic" for the purpose of timing murmurs is without reproach; both expressions are vague. There is a valid objection to the term "presystolic," for the heart-systole implies both auricular and ventricular contraction; the bruit is coincident with the auricular and presystolic only with reference to the ventricular systole. The objection to the term "diastolic" is far greater; the diastole is a gradual process marked by no sign, but custom has firmly joined it to the click of the aortic valves. If a bruit accompanying the closure of these valves be called diastolic, it would be a very grave misapplication of terms to apply it to a bruit occurring, not at this period of time, but afterwards, and indicating a lesion with which it has nothing in common. While, therefore, I adopt the term "presystolic" because it now has an intelligible connotation, I cannot help thinking that it would be much better if heart-murmurs were expressed in plain English and indicated by the obvious and precise sounds of the normal heart. Thus, a systolic should be expressed as a *first-sound murmur*, a diastolic as a *second-sound murmur*, a presystolic as a *before-first-sound murmur*.

Upon the question whether or no these cases of funnel-mitral are due to rheumatic endocarditis, I do not think that this example gives a decided answer, though the probabilities are in favour of the theory of a rheumatic origin. The cases collected by Dr. Fagge tended strongly to favour the view that the narrowing of the mitral orifice is not due to rheumatism;(a) and looking at the smooth and even disposition of the curtains of the mitral valve into the funnel-form, it seems much more easy to assume that these are cases of congenital malformation unless there is strong evidence to the contrary. The observations of Lancereaux are, however, strongly in favour of the rheumatic origin of mitral stenosis. He describes rheumatic endocarditis as consisting of three stages—in the first there is multiplication of connective-tissue corpuscles, with swelling, thickening, and injection of the affected portion; the second stage consists in fibrous transformation of the neoplasm; the third is characterised by progressive involution of the transformed structure in a manner analogous to the formation of cicatricial tissue. Such is the pathological history of sclerous endocarditis as distinguished from the ulcerative and villous forms, and it is the sclerous form that is specially caused by rheumatism.(b) In the foregoing case, although the occurrence of a congenital defect is certainly not impossible, the probabilities, especially as there was a history of a previous attack of rheumatic fever, appear to be in favour of the whole valvular alteration having been due to rheumatism. The general thickening of the endocardium lining the left cavities, uniform as it was, was most probably due to the increased intra-cardiac tension. The fatal complication of the case was the extreme pericardial adhesion; to this cause was no doubt due in greatest measure the remarkable hypertrophy. The valvular change was the lesser of the evils.

(a) Guy's Hospital Reports, 1871, p. 319.
(b) Lancereaux, "Atlas d'Anatomie Pathologique," t and 228.

NOTE ON SPONGE TENTS.

By LAWSON TAIT, F.R.C.S.

The extremely offensive smell of a sponge tent removed from the uterus after having been there only a few hours must be familiar to all who have used one; and, considering the frequent use of sponge tents, it is singular that this abominable putridity does not more frequently produce serious mischief than it would seem to do. Although I have used a very large number of these tents, I have never seen them do any harm until recently, when a case of fatal septic peritonitis occurred in my hospital practice which I could trace only to the septic influence of a sponge tent.

Sponge tents are far safer than those made of sea-tangle, and it has long been one of my objects to remove the above-mentioned objection to their use. I have tried charging them with various disinfectants, but without any result, until last week I made an experiment with oil of cloves, and I have found that a tent charged with 5 per cent. solution of oil of cloves will remain in the uterus for twenty-four hou

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becoming offensive in the slightest degree. There can be no doubt that such a tent is far safer than those ordinarily in use, and it is certainly much more agreeable to the operator. Messrs. Krohne and Seesemann, of Duke-street, W., make these tents according to my formula.

Birmingham.

A NEW EXPEDIENT IN ADMINISTERING CHLOROFORM.

By JACOB HEIBERG,

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First Secretary of the Norwegian Medical Society;
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It is in general well known that there are several circumstances which may occur during the administration of chloroform, and cause anxiety to the operator and his assistants. These cases are chiefly associated with incomplete, rattling respiration, pale livid colour of the face, feeble pulse, etc. It is especially the imperfect respiration which causes anxiety, and gives the impression that the entrance to the trachea is, as it were, closed by a valve. As a remedy for this evil, which is, so to say, of daily occurrence in every surgical infirmary, a special treatment has been methodised. A peculiar gag is applied, with a screw which forces the teeth apart, and the tongue is then drawn out with forceps or with pointed muscle-hooks. The respiration is thus usually liberated, and the more or less interrupted narcosis is continued.

I do not know whether it has occurred to others, as it has to me, that there is something unsympathetic in this process, although I have myself many times been obliged to employ it. I have had three special objections, namely—First: It gives to the whole operation an appearance of uneasiness and anxiety, which is not at all desirable, and frequently does really put the operator into an unnecessarily disturbed state, which has a tendency to divert his attention from the important matters that require it. Second: The patient's teeth are not unfrequently broken; the tongue is often so much injured by the manipulation, that the patient, who may have been operated on for a very unimportant affection—for instance, a slight atheroma or lipoma, etc.,—is inconvenienced for many days, speaks badly, or swallows with difficulty. Third: The narcosis is prolonged by this expedient, the quantity of chloroform consumed is increased, and the after-pains of the narcosis aggravated.

Two years and a half ago I hit on an expedient, which in my opinion is available for the avoidance of all the inconveniences referred to. This consists in drawing forward the under jaw *in toto*.

When the rattling, incomplete respiration begins—that is to say, in all those cases in which the teeth are otherwise forced apart, and the tongue drawn out—I draw the under jaw forwards by the following means:—Standing preferably behind the reclining patient, the operator places both thumbs on the symphysis of the lower jaw, presses the second joint of the bent forefingers behind the posterior margin of the rami ascendentes of the under-jaw, and thus holding the whole bone fast between the two hands, draws it forcibly forwards (anatomically speaking). The most successful impulse is that which would be given if the intention were to lift the whole head and body by this grasp.

If the patient is now under the influence of chloroform—and only in this case is it necessary to take any extraordinary measure,—the head of the jaw slips forward over the tuberculum with an appreciable jerk, the whole under-jaw slides forward, the lower row of teeth comes in front of the upper row, and the patient's countenance takes the appearance which the Danes call "under-jawed" and the French call "*ganache*." When the experiment (which is particularly easy with children) is successful, a deep complete respiration will immediately take place, and will be continued as long as the jaw is kept "luxated" (*sit venia verbo*) forward. The obstacle to the respiration is removed, the rattling ceases, and, in short, exactly the same result is obtained as if the tongue had been drawn forward.

I have repeatedly administered chloroform with the precautions usually adopted; but subsequently, since I began to employ the expedient here described, I never used any of these precautions or any instrument in more than 1000 cases in which chloroform was administered. Therefore I consider myself called upon to communicate it to my colleagues and to submit it to a more extensive test than is possible for me.

The anatomical process is not yet quite clear to me. It is probably the epiglottis which closes the larynx like a valve, and which is drawn upwards. I hope, however, in the course of the winter to have the opportunity of investigating in frozen subjects what parts are displaced by this "luxation" of the under-jaw. The application of electricity, electro-puncture of the heart, and tracheotomy are not excluded by the expedient described, while the employment of other means is rendered superfluous. I repeat the advantages as follows:—1. The operator can devote himself more undisturbedly to his special work, while the whole operation is characterised by greater quiet and security. 2. Injuries to the teeth and to the tongue are avoided. 3. A less quantity of chloroform is employed, whereby the after-pains of the narcosis and the danger of death are diminished.

REPORTS OF HOSPITAL PRACTICE IN MEDICINE AND SURGERY.

UNIVERSITY COLLEGE HOSPITAL.

The patient under Sir Henry Thompson, whose breast was removed by the elastic ligature after the method of Professor Dittel, of Vienna, is now, we are glad to learn, convalescing rapidly. As was stated previously, one ligature broke, so that only half of the tumour remained constricted after the first operation. This ligature had subsequently to be tightened, and for some time the case was complicated by a severe attack of erysipelas. After the first ligature had contracted to the size of a wheat-straw, the tissue included within it was snipped across, and the remaining half of the tumour was ligatured by a very strong elastic cord of the stoutness of thick whipcord. This was applied on December 9, and had once to be tightened. It separated in the same way as the first on December 19, leaving a healthy granulating surface the size of a small saucer. This is now rapidly healing.

ST. THOMAS'S HOSPITAL.

RUPTURED PERINEUM—INCONTINENCE OF FÆCES OF THIRTY-THREE YEARS' DURATION—OPERATION—CURE.

(Under the care of Mr. FRANCIS MASON.)

The subject of this case was a married woman, aged 57, who was admitted in September last into Alexandra ward. Thirty-three years ago she was confined with her first child, when her perineum was deeply lacerated. At that time she lost power over the sphincter ani, and has been in the same miserable state until she came under Mr. Mason's observation. Throughout this period she has remained in perfect ignorance as to the cause of what she terms her "constant diarrhœa." Notwithstanding the local condition, she has given birth to eight children. On examining the patient the perineum was quite obliterated, the rectum and vagina communicating by a rent of at least two inches in extent. Moreover, a mass of mucous membrane protruded from the rectum, and could not be retained *in situ*.

September 10.—The bowels having been previously cleared, the patient was placed under the influence of chloroform, when Mr. Mason performed the following operation:—A piece of mucous membrane, with a margin of skin, about six inches in length, and nearly two inches in depth, was taken—in one continuous piece—from the lateral and posterior walls of the vagina. The quilled suture was then applied, great care being taken to pass the needle (a large one in a handle) and thread deeply, so as to secure the perfect coaptation of the raw surfaces. Three threads were used, and, besides the superficial stitches for the skin, one simple suture was placed deeply, so as to bring the anterior edges of the anus accurately together. A catheter was introduced and retained in the bladder, and at the end of a week a small dose of castor oil was administered. The bowels were relieved without either pain or injury to the parts. Throughout the treatment cleanliness was scrupulously observed. The vagina

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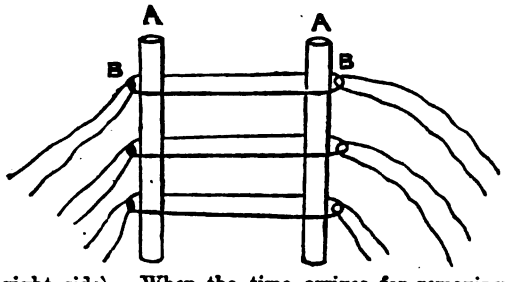
was washed out with a solution of Condy, and with luke-warm water; and when the stitches were removed, on the eighth day, primary adhesion had taken place in nearly the whole of the wound, the remaining small portion healing by granulation. The patient progressed without a bad symptom. She completely recovered the power over the sphincter ani, and was discharged quite well about a month after the operation.

In remarking upon this case, Mr. Mason referred to a simple plan he is in the habit of employing in order to obviate the difficulties that occasionally arise from drawing the quilled suture too tightly. He observed that if wire be used it may be untwisted by the surgeon at any time, but occasionally it breaks in the process. Again, if silk or whip-cord be employed and tied in a bow, the bow, whilst it is capable of being unloosed, is nevertheless apt to slip. Mr. Mason believes that the safest plan is to tie the thread in a knot; and if the following expedient be superadded the advantages are, that whilst there is perfect security, the suture may be released at any moment in the course of treatment, and be as quickly readjusted. The accompanying diagrammatic woodcut will perhaps explain this proceeding. Before the stitches are finally knotted, a thread is put through the loop



(B, right side). When the time arrives for removing the stitches, the quill or catheter (A) should be slipped off the loops in the upward or downward direction. The threads being thus disengaged, it is easy to understand that other sutures may be applied, if required, by pulling the stitches, and with them the attached threads, laterally through their respective tracks. This may be effected on either side if precaution be taken to leave long ends to the knots, as shown on the left side of the engraving. It should, however, be borne in mind that the knotted ends, being rough, are likely to give more pain than the looped ends.

Mr. Mason has operated on several cases of ruptured perineum with the simple suture carefully applied, and thinks it might often be substituted for the quilled, the support from the latter being seldom required, as there is little or no tension on the parts when the thighs are approximated. If, however, the quilled suture be used, the additional safeguard above described will obviate the necessity of introducing the needles a second time, and certainly diminish the patient's suffering.

GENERAL HOSPITAL, MADRAS.

TWO CASES OF CHYLURIA.

(Under the care of Dr. G. SMITH.)

Case 1.—W. R., aged 21, a guard on the Madras Railway, who was born and had resided all his life in India, was admitted into the Hospital on May 7, 1873, complaining of passing urine of a milky character, and of fever. The patient states that in 1868, while residing in Hassan, in the Mysore District, he suffered from jungle fever of a rather severe type, and in 1871, while at Ghooty, from attacks of intermittent fever. No derangement of the abdominal organs followed. While at Combatore, in January last, he noticed his urine assuming a milky character. It was then thick, and passed in jelly-like masses. Since then the urine has varied in colour and density, being white and thick at one time, then brown or yellow, and at other times thin. He came to Madras on sick-leave about the end of last month, but on his arrival the urine suddenly assumed its natural appearance. The disease, however, soon reappeared. On May 4 he had a severe attack of fever, which continued till the 6th, when it left him until the day of his admission into the Hospital. The patient also states that a few days ago pain came on in the loins and in the lumbar and hypogastric regions of the abdomen, and continues to the present.

Present Condition.—The patient is suffering from fever; the pulse is full and quick, skin dry and harsh. The temperature is 101·6°; he feels weak and faint; conjunctivæ slightly congested; pain in the head. Urine has an offensive odour; its colour is of a light reddish-brown, and the consistence that of milk; the quantity passed is about sixteen ounces; reaction distinctly alkaline; specific gravity 1022; it deposits large quantities of masses tinged red from the presence of blood. Heat changes the colour to white, and throws down a cloudy precipitate, which, on the addition of nitric acid, changes to a brownish precipitate, most of which rises to the top and is redissolved with effervescence in excess of acid. An unsuccessful search was made with the microscope in the blood and urine for the filaria sanguinis hominis. ℞. Pulveris ipecacuanhæ gr. xxx., aquæ ʒij.—Misce; fiat haustus, immediately. Also tincturæ aconiti ♏iij. every second hour till fever subsides.

May 8.—Evening: High fever; temperature 103°.

9th.—High fever; temperature 101·6°, pulse 80; has passed about forty-eight ounces of urine since last night, which has a slightly acid reaction and a chocolate-brown colour. At the bottom of the chamber-pot a large quantity of fibrino-gelatinous masses are seen, which have a red tint on the surface, due to the presence of blood. Patient still complains of pain in the loins over the region of the kidneys; also of pain in the abdomen over the lumbar regions, and in the situation of both kidneys and over the bladder. States that he passes the urine in clots, which are sometimes long and stringy. Sometimes these slightly hinder the free passage of the urine. The red clots generally come first and then clear urine follows. He complains this morning of pain in the right testicle, which is swollen and a little hot. This symptom is said to have appeared rather suddenly a few days ago. There is no impulse in the swelling on coughing, and slight fluctuation can be detected. The testicle to be painted with tincture of iodine. Evening: Has distinct fever. Temperature 100·9° Fahr. Urine passed during the day has a dark-brown colour and has a red deposit of blood. Continue aconite.

10th.—Has fever this morning. Temperature 100·2° Fahr. Urine has a coffee-and-milk-looking colour, but no gelatinous masses were passed, neither was there any obstruction to the flow of urine; quantity passed in twenty-four hours is about forty-eight ounces; reaction slightly acid. Pulse 84; tongue foul; bowels regular. Slept little last night. ℞. Tincturæ aconiti ♏j., vini antimonialis ♏xl., tincturæ opii ♏x., ex aquâ, every third hour day and night, but omitting the opium at night. Turpentine stupes to loins.

11th.—No fever this morning. Temperature 98·6°. Has passed about forty-eight ounces of urine of the same colour as before. There are no clots or blood present. Pain is still complained of in the loins and lumbar regions. The treatment to be continued. Evening: Skin hot and moist. Urine presents the same colour as this morning.

12th.—Slight heat of skin this morning. Temperature 99·8°. The patient passed forty ounces of urine since 6 p.m. There are no clots, but at the bottom of the chamber-pot reddish streaks of blood are seen. Had fever last night at about eight o'clock, which was preceded by shivering, and lasted a few hours. Slept pretty well last night after the fever left him; complaint is still made of the pains about the loins and lumbar regions. Pulse 80. ℞. Vini antimonialis ♏xl., aquæ ʒj.—M.; fiat haustus, to be taken every third hour day and night. Turpentine stupes to loins. Evening: Skin cool; no fever. Temperature 98·8°; pulse 76.

13th.—Feels weak this morning. Skin warm. Temperature 99°; pulse 80. Tongue foul and covered with a white fur. Has passed about sixty ounces of urine of a coffee-and-milk colour; no clots or masses are deposited, but a reddish sediment is seen consisting of blood. Still complains of pain about the renal regions. A search was made this morning for the filaria sanguinis hominis, but the attempt failed. Continue antimony, and turpentine stupes. Evening: Skin cool and moist.

14th.—Skin cool this morning; tongue covered with a whitish fur. Has passed sixty ounces of chocolate-brown-coloured urine without any clots; specific gravity of urine is 1020, and it is of an alkaline reaction. Evening: Skin cool; no fever.

15th.—No fever this morning; skin is cool and moist. Urine passed is about eighty ounces, and has a lighter colour than usual; specific gravity is 1015, and it contains neither alkaline matter nor blood.

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16th.—No fever this morning. Tongue better and not so foul; skin cool. Still has pain about the kidneys. States that he had fever last night. Urine this morning has a much lighter colour; specific gravity 1020; alkaline in reaction; no gelatinous masses deposited, but streaks of blood are to be observed at the bottom of the utensil. Evening: No fever; skin cool and moist.

18th.—No fever yesterday or this morning; temperature 98·4°. Urine has a lighter colour; specific gravity 1022, and the quantity passed is about sixty ounces.

19th.—Temperature 98·2°; skin cool; no fever yesterday. Has passed forty ounces of urine; specific gravity 1020; colour is of a chocolate-brown, and there are no gelatinous masses or blood.

20th.—No fever yesterday; none this morning. Temperature 98·4°. Urine passed, forty ounces; specific gravity 1018.

21st.—Temperature this morning is 98·6°. Urine passed has a light colour, and is about thirty-four ounces; specific gravity 1015; deposits a small quantity of gelatinous matter. Urine and blood were examined this morning for the filariæ, but none were to be found.

22nd.—Temperature 98·8°; skin cool this morning. Had fever yesterday evening from 4 to 9 p.m. Urine contains a large quantity of jelly-like masses and a reddish sediment; specific gravity 1015, and the quantity is forty ounces. ℞. Vini antimonialis ℥xxv., aquæ ʒj.—M.; fiat haustus, every third hour.

23rd.—Doing well; no fever. ℞. Quinæ sulph. gr. v., mucilaginis q. s.—M.; fiat pilula, three times a day. Urine passed has a whitish-brown colour; specific gravity 1017; quantity about thirty ounces.

24th.—Urine passed, about forty-eight ounces; acid reaction; contains no gelatinous masses; specific gravity 1018; same colour as yesterday. No fever.

25th.—Doing well. Has passed about sixty ounces of urine of a lighter colour than yesterday; reaction slightly acid; contains no gelatinous masses; specific gravity 1020. Has had no fever. Tongue clean; bowels regular. ℞. Tinct. ferri perchloridi ℥xx., aquæ ʒj.—M.; fiat haustus, three times a day.

26th.—Doing well; has had no fever. He has passed about twenty ounces of urine, exclusive of what was passed in the latrine; specific gravity 1020; alkaline; no gelatinous masses; no reddish sediments. There is no pain in the region of the kidneys.

27th.—Has passed about thirty-two ounces of natural (light straw) coloured urine; there are no clots or reddish sediments; specific gravity 1020. No fever last night or this morning; no pain complained of about the kidneys. ℞. Tinct. ferri perchlor. ℥xx., aq. ʒj.—M.; fiat haustus, between meals. Also ℞. Acidi gallici gr. v., mucilaginis q. s.—M.; fiat pilula, three times a day.

28th.—Urine normal in quantity—about fifty ounces,—but of a darker colour than yesterday; there are no clots, neither can any of the reddish sediments be seen; specific gravity 1020; it has a slightly acid reaction, and contains excess of phosphates, with a trace of albumen. Has had no fever lately; tongue clean; bowels regular.

29th.—Has had no fever yesterday or for the last few days; is doing well. There is no pain complained of in the region of the kidneys. Slept well last night. Has passed a small quantity of urine of a light straw colour and slightly acid reaction; there is no deposit of gelatinous matter, and no reddish sediment.

Discharged at his own request.

Case 2.—S., aged 25 years, a coolie, was admitted into the Hospital on May 18, 1873, complaining of having passed urine of a milky character and tinged with blood for the last two months. The patient states that about three months ago he was attacked with gonorrhœa, and passed a yellowish-white discharge for a month, which then became bloody, and thereafter gradually assumed its present character. He has never suffered from malarial fever. He says he occasionally passes red-like masses by the urethra, which obstruct the passage of urine. On admission the skin is warm and dry; temperature 99·8°. There is no purulent discharge from the urethra. The urine is of a light reddish-brown colour; quantity passed, thirty-two ounces; reaction alkaline; specific gravity 1009; it contains a large quantity of albumen. ℞. Vini antimonialis ℥xl., aquæ ʒj., three times a day.

May 20.—The skin is normal. Complains of a burning sensation in the urethra. Urine passed, forty-eight ounces in twenty-four hours; specific gravity 1011; albumen, three-fourths. The patient is found to be suffering from chronic scabies scattered over both hands. Continue antimony; the hands to be rubbed with sulphur ointment.

22nd.—Patient's skin is warm. There is little or no burning sensation in the urethra at present; urine passed measures thirty-two ounces; slightly alkaline; specific gravity 1011; contains albumen. ℞. Tinct. ferri perchlor. ℥xx., aquæ ʒj.—M.; fiat haustus, to be taken three times a day.

24th.—Condition much the same.

26th.—Patient feels weak and giddy. Skin normal. Passed thirty-three ounces of urine; specific gravity 1010; containing albumen.

28th.—Temperature 99·5°. Urine coffee-coloured; no gelatinous masses; reaction neutral; specific gravity 1009; contains albumen.

30th.—Skin warm and dry. Urine measures thirty-four ounces; alkaline reaction; specific gravity 1013; albumen contained in it, one-half. The tincture of iron to be continued. ℞. acidi gallici gr. x., fiat pulv., to be taken three times a day.

July 2.—Urine thirty-two ounces; coffee-coloured; reaction alkaline. ℞. Tinct. ferri perchlor. ℥xl., aquæ ʒiij., to be taken every third hour.

4th.—The patient improving slowly. Urine darker in colour; thirty-six ounces.

7th.—Absconded yesterday.

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Medical Times and Gazette.

SATURDAY, JANUARY 10, 1874.

ON THE TREATMENT OF DIABETES MELLITUS WITH CARBOLIC ACID.

Dr. W. Ebstein and Dr. Julius Müller, of Breslau, have published in the *Berliner Klin. Woch.* of December 8, 1873, an account of some observations on carbolic acid in diabetes, and though their facts are at present too few to warrant any decided opinion on the subject, yet they are worth recording, in order that others may repeat their experiments on a larger scale. These authors were led to make use of carbolic acid from *à priori* reasoning. Starting from the theory that many cases of diabetes arise from an increase in the ferment which converts amyloid substance into sugar in the liver, they conceived that substances which are known to arrest fermentation

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would be likely to diminish the formation of sugar. Prout, Griesinger, and Julius Vogel had all previously made trial of creasote (a body chemically allied to carbolic acid) in diabetes, and found it inert. Carbolic acid has several advantages over creasote as a drug. Its composition is definite, its odour pleasanter, and it can be taken in much larger doses. The carbolic acid was given dissolved in peppermint water, strength 1 gramme (=grains 15) to 300 grammes. This quantity was taken in three days—that is, about six to seven tablespoonfuls per diem.

The first patient was a working dentist, aged 46, who had shown signs of diabetes since October, 1872, after some family trouble. There was no hereditary taint, and he had had no previous illness. He had served seven years as a soldier. He was strongly built, but had in six weeks lost thirty-four pounds weight. Sexual power was much diminished. He came under treatment in February, 1873. His urine was on the average eight litres in the twenty-four hours; specific gravity, 1032; amount of sugar, 2·86 per cent. On March 4, after taking altogether two grammes of the acid, sugar had disappeared from the urine, and its specific gravity was 1013. His weight gradually increased from 173 to 185 lbs., and he ceased to attend at the end of July, all sugar being still absent, though there had been traces occasionally present in the interval. He returned on October 29, complaining of his old symptoms, and was found to have about 2·25 per cent. sugar again present. but it disappeared as before on recommencing the carbolic acid. The patient had a mixed diet, and never a purely animal one, during the whole course of his treatment.

A second patient, a man aged 54, had had a mild form of diabetes eleven years, the sugar varying from 2·5 to 5 per cent. in the last few years. The disease was not hereditary. One sister died of some mental affection. He had been eight times at Carlsbad, with marked temporary diminution of the percentage of sugar, but soon after leaving, it rose again to its former height. In May, 1873, he went as usual to Carlsbad, his urine then containing 5·75 per cent. sugar, and he left it in six weeks with only 1·43 per cent. He was immediately placed on the carbolic acid treatment, and the dose gradually raised to half a gramme per diem, and on September 2 the sugar had entirely disappeared. A previous trial of the acid before the visit to Carlsbad had entirely failed. This patient habitually adopted an animal diet. The authors give details of a third case in a man, aged 23, in whom the acid had no perceptible effect. The only case, therefore, on which positive stress can be laid is the first, and there the effects appear undoubtedly referable to the acid. The analogy of other drugs—for example, of bromide of potassium in epilepsy, the efficacy of which varies so much in different classes of cases—would lead us not to expect carbolic acid to act equally in all diabetic patients; but Drs. Ebstein and Müller certainly deserve the credit of showing that it is worthy of a more extended trial.

BLUE PUS.

The history of the origin and destiny of the various colouring matters of the living body has ever seemed to us a subject of interest, and one, too, which when fully investigated would probably prove, like other purely scientific investigations, rich in practical import. One of the most curious chapters of this history—should it ever be written—will undoubtedly be that one which refers to the appearance from time to time of a secretion of blue pus, and something closely allied to this—namely, the blue staining of dressings applied to wounds and even healthy surfaces. It is probable that these are not identical, nor is the cause of the blue staining apparently always the same; but it is a curious fact that this sometimes becomes epidemic, as was the case not very long ago in M. Gosselin's wards in the Charité at Paris.

Cases are on record where various normal secretions have become blue. Thus, sweat, milk, and urine have all appeared of this colour, whilst sometimes green has been substituted for it. As far as physiology is concerned, two sources are indicated. One of these is the hæmoglobin, which would seem to be the source of almost all the colouring matter in the body; and the other is a waste product found in the urine, and which is termed indican. Hæmoglobin, when it has escaped from the vessels, tends to undergo certain changes familiar to us in the varying colours of a bruise, whilst something of the same kind occurs after death. But in an old clot it becomes converted into a crystalline body called hæmatoidin, and this hæmatoidin is identical with the red colouring matter of the bile. All who have watched the effect of nitric acid on bile know that one of the products of the chemical change assumes a green and afterwards a bluish tint; and as the action of nitric acid is essentially one of oxidation, a blue product may be normally intermediate between the colouring matter of the bile and the colouring matter of the urine, in which form altered blood-pigment is ultimately expelled from the body. Now, it is probably some peculiar condition of part or system which leads to this manifesting itself, either locally as blue pus or discharge, or generally in one of the secretions.

M. Demarquay has invented a very simple theory for such blue staining of the dressings of wounds. He fancies it is due to the colouring or bleaching agents used by washerwomen; but this will hardly, we fear, hold water. Not more abstruse was that given by Dumas and Persoz. The blue they fancied was Prussian blue, and all that was needed to develope it was a cyanide and a salt of iron. But then came the difficulty—how to account for the existence of these reagents.

The theory recently most favoured is that of Lücke, who holds that the blue coloration is due to the presence of minute organisms which he calls vibrios, and which are capable of movement, spontaneous or otherwise; and in all probability this theory holds good in a certain number of instances—especially when the condition tends to become epidemic, and when dressings are not carefully attended to. It has been noted that these outbreaks—if we might so call them—are most common in hot, moist weather, and this, too, would favour the view adopted by most German authorities. In some instances, a blue colouring matter—pyocyanine, as it has been called—has been separated from the coloured discharges, but in too small quantities for anything like an analysis. Perhaps, however, the spectroscope might help us. Nevertheless, this pyocyanine in many ways seems to resemble indigo blue, such as is sometimes found in urine. Indican is now known to be a normal constituent of urine, and if so is probably also to be found in blood-serum. Indican is colourless, but by decomposition—such as occurs in putrescent urine or may take place in wounds in a peculiar condition—gives rise to the indigo blue already spoken of. These facts may help us towards a knowledge of the origin of blue or green pus, for, with a blue colouring matter, even the slight yellow of blood-serum would be sufficient to impart to it a greenish tint. It is probable, however, from what has been said, that the origin of such blue colouring matters is not invariably the same; and as to their import we are still more ignorant. We have no doubt but that an inquiry into the various changes which pigments undergo in the living body would throw a flood of light on many difficult physiological and pathological problems.

THE WEEK.

TOPICS OF THE DAY.

A dispute has arisen between the Chelsea Vestry and the coroner as to the right of entry for the coroner and juries at any time to view bodies placed in the parish mortuary when holding an inquest. On a recent occasion the coroner and ju-

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had been kept half an hour before the keys could be obtained. The coroner had, it was stated, declared that if such a circumstance occurred again he would send for a smith and have the doors of the mortuary broken in with a sledge-hammer. This matter was a subject of some discussion at the last vestry-meeting, and the question of interfering with the rights of the churchwardens formed part of the discussion, they being the custodians of the burial-ground in which the mortuary is situated. It was resolved, ultimately, to allow the coroner's officer to have duplicate keys. This question was decided in a very peremptory manner by the late Mr. Wakley. The vicar of a suburban village had refused admission to the coroner and jury to the vestry-room for the purpose of holding an inquest. The blacksmith of the village was sent for, and the vestry-room door broken in by a sledge-hammer. Legal proceedings were threatened, but were subsequently abandoned. No doubt the Chelsea Vestry were not unacquainted with this fact when they came to their decision on the subject. Whilst on this matter we may state that Mr. Bedford, the Coroner for Westminster, invariably holds an inquest in the vestry-room of the parish in which the death occurs. This is far better than to conduct an inquiry of a solemn character in the parlour or taproom of a public-house. The advantages of the conduct pursued by Mr. Bedford must be patent to every reasonable person.

Dr. Whitmore, the Medical Officer of Marylebone, has, in consequence of the prevailing and fatal epidemic of measles, set an example worthy of imitation. He has sent a circular not only to the managers of every school in his district, but to every member of the London School Board, in which he states that measles is to a considerable extent disseminated by the free intercourse which takes place amongst children of the poorer classes of our parochial and other public schools. Many have brothers or sisters suffering from the disease, and thus become carriers of the infection to their schoolfellows. He suggests that all school managers should take the trouble to ascertain whether children attending schools come from houses where measles, etc., exist, and prohibit further attendance until such houses are free from infection; also, that any room or cupboard used for children's hats, caps, bonnets, cloaks, etc., should be constantly disinfected by the free use of chloride of lime or carbolic acid. We fear that this most valuable suggestion will not be taken advantage of to the extent it deserves. It is well known to medical practitioners that the policy of many conductors of private schools is to avoid publicity in cases where infectious diseases prevail in their establishments. In most of our public schools, however, the opposite principle prevails. Immediately a case of infectious or contagious disease presents itself, the patient is isolated or sent home to his friends with a true statement of the case. Moreover, every child on returning to school is required to bring a certificate to the authorities that he is in good health, and in a fit condition to mix with his fellow-pupils. It is too much the fashion, we fear, when a case of scarlet fever shows itself in a private school, to characterise it as roseola or some other non-infectious disease. It is the same with measles. This is one of the most prevalent causes of the spread of disease amongst the community.

Quarantine under any circumstances is a hardship to those who have to submit to it: it is therefore imperative, on the part of those who have to carry out the provisions of the Quarantine Act, to do so with the greatest consideration and care. We were astonished to see in the *Times* of Monday last a letter entitled "An Incident of Quarantine," in which the following extraordinary statement was made:—"The Peninsular and Oriental steamship *Ceylon* arrived in Alexandria on the 12th instant. Twenty-two male passengers and seven ladies were sent through to Suez in dirty locked carriages worse than even the usual Egyptian carriages, which are bad enough. No communication with the ladies was allowed during the transit, and the only attempt at refreshment was that the conductor of the train bought some hard-boiled eggs and bread at one station, and retailed them to the passengers at the next at the rate of 2d. a-piece. The quarantine and railway officials were uniformly uncivil, and even after arrival at Suez there was a delay of an hour before the train went on to the dock." It is impossible to conceive anything more disgraceful and impolitic than such conduct on the part of officials, particularly on taking into consideration the exorbitant charges which are made for the transit.

Apropos of the discussion which is at present going on with respect to vivisection, the following just and indignant remonstrance from Professor Schiff is published in the *Times* of Wednesday:—

"1. That I have ever remained true to the method advocated and recommended by myself in my writings and conferences, and which spares the animals pain. Before undertaking any experiment which demands an operation likely to prove painful, the animals have always been deprived of consciousness, and put into a profound sleep, which was maintained during the whole of the operation. I have constantly made use of the most efficacious means of which science disposes to attain the aim.

"2. That the greater part of my experiments are made upon dead animals, in which, if necessary, certain functions were prolonged by means of air artificially blown into the lungs.

"3. That I have all the animals killed in which these experimental injuries might subsequently cause pain, immediately after the experiment, and before they have entirely returned to consciousness.

"4. That it is, therefore, impossible that animals, whether during or after the experiment, should have uttered 'day and night frightful howls of pain on account of the operations to which they are continually subjected,' as is stated in the libellous protest written by my adversaries' lawyer, and in their name."

Professor Schiff adds that he is ready to have the contents of this declaration inquired into by any judicial authority, and to submit his experimental method to the judgment of the Florentine Society for the Protection of Animals, to whose members the doors of his laboratory are at all times open. So much, he says, for facts and his method. As to the manner of application and utility of vivisection, he adds that it is universally recognised, and a great number of experiments of the kind are made in Berlin, London, and Paris. To all unprejudiced persons this disclaimer will be accepted as a sufficient answer to the charge of cruelty brought against Professor Schiff. To prejudiced and ignorant opponents of vivisection it is useless to attempt to convince them of their mistake, either by facts or by arguments.

The adjourned summons charging two farmers in Kent with supplying to a milk-dealer adulterated milk came before the Bow-street magistrate on Tuesday. Upon the previous occasion the legality of the analysis was contested on the part of the defendants. It was urged that the Act of Parliament 35 and 36 Vict., cap. 74, sec. 10, required that a portion of the article to be analysed should be sealed up and set aside, and produced before the magistrate to enable him to order another analyst to analyse, if necessary. It was urged on the other side that that precaution was only required in official prosecutions. The magistrate now said that it was his opinion that the Act referred to other than official prosecutions, and that, therefore, in the present case the evidence of analysis had failed. He accordingly dismissed the summonses. The above case shows the importance of abiding strictly by the statute with reference to analysis of articles supposed to be adulterated. Strict as the Act is, it is not too strict, considering the interests at stake.

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With regard to the reported discovery of a live specimen of the dodo, Professor Owen writes to the *Times* thus:—

"The bird of the Samoan Islands noticed in a paragraph in the *Times* of December 29 is the dodlet. The extinct dodo of the island of Mauritius was about six times bulkier. Coloured figures of both birds—that of the dodo copied from paintings by the Dutch artists who saw the living bird in the time of their Stadtholder Maurice; that of the dodlet from the bird living in the Zoological Gardens about ten years ago, with the skeletons of both *didus* and *didunculus*—are given in my work on the dodo, 4to."

We publish in another column an interesting letter from Mr. Erichsen on Bloodless Surgery and the Elastic Ligature, which it seems to us is worthy of professional attention.

THE WAR ON THE GOLD COAST.

A careful examination of the news which has come to hand during the past week would seem to indicate even more plainly than before how thoroughly efficient are the heads of the present expedition to carry out the difficult details entrusted to their guidance. Evidently warned by the sad experiences of former campaigns in this most horrible of countries, Sir Garnet Wolseley has steadfastly set his face against the disembarkation of his European reinforcements until such time as everything shall be ready for their immediate departure for Coomassie. Stores of all kinds must be sent forward in ample quantity—at least as far as the Prah—before the troops are allowed to start, as no delay must, if possible, occur on the road after the march has once begun. With all his commissariat and hospital arrangements in good working order, the Commander-in-Chief may fairly hope by the aid of the splendid *matériel* at his disposal, to make a gallant and effective dash at the enemy's capital, and even to emulate the achievements of the great Roman general who summed up the result of his successful operations in the three words—*veni, vidi, vici*.

The list of casualties has been increased by the untimely death of the Hon. Alfred Charteris, who succumbed to the combined effects of fever and dysentery whilst on his passage home to this country. If the passing rumours on this subject are correct, the fatal result was in a great measure due to the want of care for himself exhibited by this officer when first attacked. Unwilling to declare himself sick whilst so much work remained to be done by the small but brilliant staff which accompanied Sir Garnet to the Gold Coast, Mr. Charteris concealed his real state until disease entirely prostrated him, and the gallant and promising young officer was carried on board with the vital energies too much depressed to allow of his rallying. So far, the little band of officers who left this country on Sir Garnet Wolseley's staff must be said to have held out wonderfully against the attacks of climate, when the desperate exertions they have had to undergo are taken into consideration; but all these gallant gentlemen would do well to remember that the climate of the West Coast of Africa *will* not be trifled with. It is imperatively necessary for them to consult a medical officer upon the first appearance of illness of any description; and, however galling it may be for them to be ordered away at the very moment that honour and glory are looming in the distance, they must remember that a change from this pestiferous air is in most cases the only chance of saving life.

Much regret has been expressed at the refusal of the Portuguese Government to allow the establishment of a sanitarium for our troops at the Island of Madeira. It appears that in the first place the Governor had given his consent to Surgeon-Major Mackinnon, and all the necessary preparations were instituted; subsequently, however, the sanction was withdrawn, and the island placed in strict quarantine. There is no doubt that the recent outbreak of yellow fever on the West Coast of Africa has dictated this stringent measure. It may be in the recollection of some of our readers that a few years since the island was decimated by a terrible outbreak of this malady, imported from the Coast; and the horrors of that period are still vividly present to the survivors who reside at Madeira. The Government of this country will endeavour to select some other suitable spot, to obviate the necessity of bringing invalids direct to these shores, in cases where the great change of temperature might prove hurtful; but the question is an exceedingly difficult one to deal with, as it is not at all improbable that the Spanish authorities will raise objections to the landing of invalids at Gibraltar for similar reasons.

Colonel McNeil, who sailed from England as chief of Sir Garnet Wolseley's staff, has returned home, much against his inclination, but at the urgent representations of his medical advisers. There is some fear that he may lose the use of his arm, from the severe wound which he received in the wrist. Surgeon Connellan also accompanied him, invalided by a sharp attack of fever.

Rumours have also been received that Captain Glover has found it necessary to abandon his design of a simultaneous advance upon Coomassie by the line of the Volta. This news, if correct, will not be astonishing to many persons, who from the first doubted the ability of even so determined an officer as Captain Glover to effect so long a journey with nothing but a native force to back him.

ST. ANDREWS MEDICAL GRADUATES' ASSOCIATION.

The annual meeting and sixth anniversary of this Society was held at Willis's Rooms on Tuesday, December 30 last, at 5.30 p.m., and was well attended. The President, Dr. Lockhart Robertson, being unavoidably absent, the chair was filled by Dr. B. Ward Richardson, F.R.S., who delivered an able and interesting address on the history and achievements of the Society, dwelling especially on the fact that it had gained for the graduates a voice in the government of their University and a Parliamentary vote as well; that it had taken a part in all the most important medical and many of the social questions of the past seven years, and had raised for itself a monument not unworthy of it in the volumes of *Transactions* already published. After the usual formal business, the Honorary Secretary read the report, which will appear *in extenso* in the *Transactions*. Amongst other matters of general interest it was announced that the "Mrs. Day Fund," for the widow of the late Professor G. E. Day, had nearly reached the sum of £1000. A great part of the report was occupied with the steps taken in reference to the M.D. degree, and the interviews on that subject with the Lord President of the Privy Council; it then went on to state that the General Council of the University, held in the hall of the United College at St. Andrews, on March 27 last, had resolved that a committee of the General Council be formed in London, to watch over the interest of the University in the event of any action, either in Parliament or otherwise. As the committee, when formed, must of necessity be composed in large part of the same elements as the St. Andrews Medical Graduates' Association, and, being an integral part of the University, will speak and act with greater authority than a voluntary association having no such official status; as, moreover, there are now so many other medical societies in existence, and the greater part of the objects for which the Association was founded have been already gained, the Council recommended the temporary dissolution of the Society in the following terms:—"Seeing that the chief objects for which the St. Andrews Medical Graduates' Association was founded have been accomplished, and that the University of St. Andrews has appointed a London committee of its General Council for the furtherance of the interests of the Univers[illegible] this Council is of opinion that the separate existence [illegible]

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St. Andrews Medical Graduates' Association is no longer necessary."

The Council also passed special votes of thanks to Dr. B. Ward Richardson for his valuable and disinterested services as Assessor of the General Council of the University, and to Dr. Sedgwick as editor of the *Transactions* and for his many years' service as Honorary Secretary.

Dr. Richardson proposed, and Dr. Cholmeley seconded, the adoption of the report. Dr. Macintyre (of Odiham) spoke to the same effect. The report was then received and unanimously adopted.

Dr. Sedgwick proposed, and Dr. Christie seconded, the following resolution:—"That the St. Andrews Medical Graduates' Association be hereby dissolved; that the books and documents of the Association, deposited in a deed-dox, be given over to the charge of Dr. Richardson, and that he be empowered by this meeting to reorganise the Association, if the necessity for such reorganisation should hereafter arise." Carried unanimously.

Dr. Moon (of Brighton) proposed, and Dr. Wynn Williams seconded—"That the President (Dr. Lockhart Robertson), Drs. Richardson, Ballard, Paul, Cholmeley, Sedgwick, Christie, Cleaveland, Seaton, Wynn Williams, and the Hon. Secretary (Dr. Bathurst Woodman) form a committee to wind up the affairs of the Association." Carried unanimously. Admiral Sir Edward Belcher proposed, and Dr. Davey (of Bristol) seconded, votes of thanks to the Council, the various officers, and to the chairman, which were carried unanimously.

The Association dinner took place at 7.30 p.m., the chair being ably filled by the President, Dr. Lockhart Robertson. It was one of the most successful of the Society's *réunions*, being favoured with the presence of Dr. Lyon Playfair, M.P., Admiral Sir Edward Belcher, Dr. Lush, M.P., the President of the Royal College of Surgeons (T. Blizard Curling, Esq.), Drs. George Johnson, Harley, and other distinguished guests, the intervals of whose speeches were agreeably filled by vocal and instrumental music.

ATHETOSIS.

In his book on Nervous Diseases, Dr. Hammond, of New York, gives a short account of an affection occurring in persons who, up to a certain age, were in good health, with perfect command over their muscles. There is inability to keep the fingers and toes from continual action, but the movements are not disorderly like hysteria and chorea, nor tremulous like paralysis agitans and various forms of sclerosis. The symptoms come on with epileptic paroxysms, and there are other accompaniments, such as trembling of the tongue, pain in the affected muscles, etc., but there is no paralysis. In the current number of the *St. Bartholomew's Hospital Reports* there is a paper by Dr. Shaw on a condition that he has met with, in a defined class of persons of weak mind, resembling much the cases related by Dr. Hammond, with this exception—that they were congenital or supervened soon after birth. Seven cases are given (being all that have come under Dr. Shaw's observation), and are accompanied by lithographic plates representing as well as possible the different attitudes assumed owing to the involuntary muscular action. These muscular movements involve the extremities, head, and face, and consist of a quasi-rhythmic spasm, resembling the peristaltic movements of involuntary muscle. The head is slowly protruded forwards and upwards to one side or to the other, and is then retracted downwards and to the other side. The facial movements are very curious, and give rise to varying expressions. These patients are in many points superior to the ordinary imbecile and idiotic class, for their cranial development, size and number of teeth, shape of ears, etc., are very good, and they are often able to dress themselves, read, do a little needlework, and so on; in fact, they are highly educable and sensitive, and may be called imbecile by deprivation or loss of opportunity of early development, from the disadvantage at which their involuntary muscular spasms have placed them. The symptoms may be on superficial observation confounded with those of chorea, though the distinction is well marked and should be made, for treatment may be of advantage in the one class, whilst absolutely useless in the other. It is presumable that the central mischief is in or about the corpus striatum, but no opportunities of post-mortem examination have as yet been found. The interest lies in the fact of isolating a group of persons closely resembling each other in personal appearance, mode of speech, and abnormal muscular action, especially as their ungainly and grotesque movements predispose them to be classified with an incurable, and too often unimprovable, set. Dr. Shaw proposes to term the disease he describes "imbecility with ataxia," to distinguish it from "athetosis," which may denote those who previous to the affection were in good health. The movements in the two classes of cases are, however, identical.

WOOD, ASPHALTE, OR GRANITE?

To most members of our profession the question of road and street paving is of importance, for most practices in the country imply the necessity of keeping one or more horses; and in town, where the risk of injury to valuable animals is still greater than in the country, this matter is even more important. The following report, which appears in the columns of our contemporary the *Pall-mall Gazette*, has therefore a distinct professional interest. The report is from Mr. Haywood, engineer and surveyor to the City Commissioners of Sewers. He states that in the reference made to him he was directed to cause observations to be made as to the number of accidents befalling horses on the asphalte, wood, and granite pavements under as nearly as possible similar circumstances, distinguishing the different results under different conditions of weather, and showing the percentage of accidents, with any other particulars worthy of notice. The observations were made during fifty days in the months of March and April last, and the pavements selected for observation were the asphalte pavement of Cheapside and the Poultry, the granite pavements of King William-street and part of Cannon-street, the improved wood pavement in King William-street and Gracechurch-street, and the ligno-mineral pavement (Trenaunay's patent) in Gracechurch-street. The results of the trial are thus stated in the report:—

"On the average of the whole fifty days' observations the granite was found to be the most slippery, the asphalte next so, and the wood the least. Separating the accidents under three conditions of surface as regards moisture, it appears that asphalte was most slippery when merely damp, and safest when dry; that granite was most slippery when dry, and safest when wet; that wood was most slippery when wet, and safest when dry; that when the surface of the pavements was generally dry, granite was the most slippery, and wood the least slippery; that when the surface of the pavement was damp in different degrees, asphalte was the most slippery, and wood the least slippery; and that when the surface of the pavements was wet, asphalte was the most slippery, and granite the least slippery."

From this the advantage of security would seem to be very much in favour of wood, it being superior to asphalte under all three conditions of moisture, and superior to granite under two out of the three conditions. The report also states that the superiority of one of the other two materials over the other—that is to say, of asphalte over granite—was insignificant as compared with the superiority of wood over both; and, moreover, that the falls to which horses are liable on wood pavement are of a character less inconvenient to the general traffic of the street, and less likely to be injurious to the animals themselves than in the case of the other two pavements.

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THE POLICE AS SANITARY OFFICERS.

Our contemporary the *Pall-mall Gazette*, remarking on the debate at the Devon Quarter Sessions the other day on the circular recently issued by Mr. Lowe, prohibiting the employment of the county police as inspectors of nuisances, says:—"The remonstrance against the circular of the Home Secretary was headed by Sir Massey Lopes;" and adds—"It is obvious, as Sir Thomas Acland pointed out, that the public bodies which have been made ultimately responsible for the public health must be entrusted with the full control of the officers upon whom is cast the duty of detecting and exposing the causes of disease, and it is impossible they can exercise such full control over an officer of health who owes his primary duty to the chief constable." But it is very much to be regretted that the matter cannot be set straight by an operation exactly the converse of that to which Mr. Lowe has felt called upon to resort. If it be out of the question, as it doubtless is, for boards of guardians and county police-constables to work together, instead of giving the masters new servants we should like to give the servants new masters. A county policeman may not make the best inspector of nuisances, but he makes a much better inspector than a guardian makes a nuisance authority. But so it is, unfortunately. We have created into a controlling authority a set of men who cannot possibly be independent; and logically we must needs give them the right of appointing subordinates still less independent than themselves.

PATHOLOGICAL SOCIETY OF LONDON.

At the annual meeting of the Pathological Society, on Tuesday, the 6th inst., the Council and Treasurer were able to read the usual satisfactory report as to the condition and prospects of the Society, which seems destined for a long career of usefulness. The following is a list of the office-bearers elected for the next year; the gentlemen whose names are marked with an asterisk (*) were not on the Council or did not hold the same office during the preceding year:—*President:* Sir William Jenner, Bart., M.D., K.C.B., D.C.L., F.R.S. *Vice-Presidents:* *Lionel S. Beale, M.B., F.R.S.; William Howship Dickinson, M.D.; *Charles John Hare, M.D.; John Burdon-Sanderson, M.D., F.R.S.; John Hilton, F.R.S.; *Carsten Holthouse; John Whitaker Hulke, F.R.S.; John Wood, F.R.S. *Treasurer:* Charles Murchison, M.D., F.R.S. *Honorary Secretaries:* William Cayley, M.D.; Henry Arnott. *Council:* *Henry H. Crucknell, M.B.; John Langdon H. Down, M.D.; Alfred Baynard Duffin, M.D.; *Charles Kelly, M.D.; *Arthur Leared, M.D.; *John Wickham Legg, M.D.; Frederick William Pavy, M.D., F.R.S.; Joseph Frank Payne, B.A., M.B.; *Arthur Julius Pollock, M.D.; Richard Douglas Powell, M.D.; *Philip Henry Pye-Smith, M.D.; William Morrant Baker; William Fairlie Clarke, M.A.; *M. Berkeley Hill, M.B.; Henry John Hughes Lawrence; Francis Mason; Henry Cooper Rose, M.D.; Henry Smith; *William Warwick Wagstaffe, B.A.; John Way, M.D.

CHOLERA IN HORSES.

It is somewhat remarkable (says the *Lucknow Times*), in connexion with the recent appearance of cholera here, that the disease, with all its pronounced symptoms as they affect the human subject, has similarly been noticed in some horses of the 19th Bengal Cavalry. In short, a cholera camp has been formed for their special behoof. Here is a fact for the consideration of our veterinary surgeons.

THE ADULTERATION OF MILK.

Five Edinburgh dairymen have been charged before the Sheriff with selling adulterated milk. In all the cases skimmed milk was used for the purpose of adulteration. The question of the minimum percentage of fat in fine milk was raised in the course of the trial, but not settled.

ADULTERATION OF FOOD.

The public analyst for Hackney, in his report, presented at the last fortnightly meeting of the Hackney Board of Works, complained bitterly of the decisions of the Clerkenwell magistrates, in not convicting in cases where the cream was removed from the milk, and in only levying a small fine where, in addition, it was proved that water was added. After some discussion on the obstacles thrown by the magistrates in the way of the authorities in prosecuting delinquents, the report was adopted.

HEALTH OF LONDON.

In the week ending Saturday last, 1842 deaths were registered in London, an increase on the average of 146. The annual death-rate from all causes, which in the two previous weeks has been 38 and 24 per 1000, was last week 29. The fatal cases of measles were 108, against 168 and 107 in the two previous weeks.

DIABETES IN CHILDREN.

Senator (*Berliner Klinische Wochenschrift*, No. 47) has collected together six cases of diabetes mellitus in children reported by others, and published them with two cases observed by himself. The first of these latter was a delicate boy, aged 12, who had had much previous illness, and had for some time suffered from enuresis and pain in the region of the bladder, and later on from loss of flesh, with increased hunger and thirst. He passed two to three quarts of urine, containing 3·8 per cent. of sugar, daily. All treatment was unavailing; he died in three weeks from cheesy broncho-pneumonia. The second case was that of a scrofulous girl, aged 12, brought up on very insufficient food. She died in less than five weeks from the apparent beginning of the disease. Senator remarks that although one would have expected diabetes to be more frequent in children than it is, on account of the relatively large size of their livers, and the great amount of amylaceous ingredients in their food, its great rarity may be perhaps explained by the infrequency of disturbances (*Störungen*) of their nervous system. Three of the reported cases began with enuresis; only one lived more than a year; all the others died in a few weeks. The prognosis is thus, so far as we can draw a conclusion from such a small number of cases, much more unfavourable than in adults. Niedergesäss (*Inaug.-Dissert., Berlin*, 1873) has brought forward a few additional cases to those of Senator, and gives details of one which he himself had an opportunity of accurately observing in the University out-patient practice at Berlin. The patient was a girl, aged 12, previously healthy. Diabetes appeared about a year after a severe fall on the head. The urine was much increased in quantity, and contained 6 to 8 per cent. of sugar, as well as excess of urea. She died in seven months from the beginning of the symptoms, in spite of all treatment. Animal diet, glycerine, and cod-liver oil were tried.

FROM ABROAD.—INTESTINAL SAND—THE SCLEREMA OF NEW-BORN INFANTS—SALE OF MEDICAL PRACTICES IN FRANCE.

M. Laboulbène, in support of his recent candidature at the Academy of Medicine, addressed to that body a memoir (since published *in extenso* in the *Union Méd.* for December 2, 1873) on a hitherto undescribed substance, which he proposes to designate "intestinal sand." Six cases are related in which it has been met with. It is not to be confounded with biliary gravel, or with small stercorous concretions, but consists in small siliceous or vegetable particles, which are derived from without, and which form nuclei, around which accumulate layers of azotised matters, and of ammoniaco-magnesian phosphate. The mode of formation, therefore, is analogous to that of urinary calculi. The following are the general conclusions of the paper:—1. We sometimes find in the stoc

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sandy matter, which I propose to call "intestinal sand." It much resembles yellowish or brownish sand, the largest granules being from three-quarters to one millimetre in diameter, and the smallest three-tenths of a millimetre. 2. The surface is irregular, and covered by rugged crystals. 3. The sand always contains siliceous particles encrusted by organic matters, and ammoniaco-magnesian phosphate, which is usually accompanied by vegetable cells unattacked by the active liquids of the stomach and intestines. 4. This sand is derived from without, and seems to be produced in consequence of a too exclusively vegetable alimentation, and the unperceived, or even intentional, ingestion of siliceous particles. 5. Moderate purgation, and a diet in which nitrogenous food is predominant, seem the best remedies.

Dr. Bierbaum terminates (*Deutsche Klinik*, December 20, 1873) some interesting papers on the "Sclerema of New-born Infants" with the following general conclusions:—1. The physiological character of sclerema of infants has not been satisfactorily made out. The symptoms are sufficiently pathognomic, but the essential nature of the disease is still obscure. Sclerema is located in the skin and subcutaneous fatty tissue, being generally localised and limited to certain regions of the body, its generalisation being exceedingly rare. Accordingly as it is or is not accompanied by a serous effusion into the subcutaneous cellular tissue, we distinguish between œdematous and simple sclerema; but the œdema is only a secondary occurrence, the diseased condition of the skin and cellular tissue being the primary affection. 2. Pathological anatomy has contributed little or nothing for the elucidation of sclerema, the anatomical changes observed being much too inconstant to throw much light on the subject; and a good deal that is found is of a secondary rather than a primary origin. The serous and bloody effusions met with in the large cavities of the body are passive in their nature. 3. The preliminary symptoms have nothing very characteristic, the early diminution of temperature and the peculiar cry of the infant at most deserving attention. The induration of the skin and fatty tissue, the serous subcutaneous effusion, the low degree of the temperature of the surface, the icy coldness, the imperfect respiration, the sluggish and weak circulation, the feeble heart-sounds, and the peculiar cry, are pathognomic symptoms of the disease. 4. Sclerema can scarcely be confounded with similar diseases, such as the erysipelas of new-born infants. The adipose induration of new-born infants is a cadaverous occurrence; and the sclerema of adults described by Thirial differs in its symptoms and in other respects from that of infants. 5. Lobular pneumonia, jaundice, and intestinal irritation are complications which are often met with. 6. The dispersion of the induration and the absorption of the serous deposit sometimes occupy a considerable time; but in most cases the disease is not of long duration. 7. In the etiological relation, foundling hospitals occupy the first line, and the age and constitutional debility are of high importance. Among other predisposing causes are premature birth, the cold time of the year, and anti-hygienic conditions. Cold is the immediate cause. 8. Sclerema of new-born infants is a dangerous disease, the mortality being high, especially in foundling hospitals; it is less in private practice. Death ensues on lethargy, pulmonary paralysis, or convulsions. 9. As external remedies, warm baths containing aromatic herbs, frictions with warm oil, and envelopment in wadding which is penetrated by aromatic vapours, are to be recommended. For internal remedies those of a restorative and strengthening character are indicated.

Some doubts having arisen as to the legality of the sale of medical practices in France, the *Union Médicale* has obtained the following opinion from M. Guerrier, an eminent advocate of the Cour d'Appel, much consulted in all medical litigation.

The question whether the cession of the practice of one medical man to another is a legal contract, M. Guerrier observes, has often been discussed and diversely appreciated by the tribunals, and new difficulties connected with it are continually presenting themselves, so that it is desirable to examine what are the principles of the law on this matter, and what are the consequences deducible from them. According to article 1598 of the Civil Code, everything in commerce may be sold, when express laws do not prohibit such alienation; and as no such law has prohibited in express terms the sale of a medical practice, we have only to consider whether it is an article of commerce, or, in other terms, whether the vendor can determine the nature of the thing sold and assure its transmission to the purchaser.

The partisans of the validity of such contracts maintain that such transmission takes place by the presentation of the purchaser to the families constituting the practice, and by the patronage of the vendor; but it is contended, on the other hand, that a practice is founded on confidence, and that as the ceder cannot impose on his patients confidence in his successor, it is impossible for him to deliver over to him his practice. Decisions in each of the above senses have been delivered by different tribunals; but the majority of authorities are of opinion that the cession is a legal one, which should be enforced by the tribunals, the price of the cession being a matter for arbitration.

It has been maintained that a practice acquired by a medical man is just as valid a property as any other, and to deny this would be to render his labours futile; his practice should, indeed, be just as vendible as are the businesses of the attorney, notary, market-salesman, etc. This M. Guerrier looks upon as a doubtful analogy, for, although a doctor's practice is a true property, it is a property *sui generis*, which has no existence independently of his personal labours. It is quite true that the *clientèle* of an attorney or a notary, etc., is also in a great measure founded on the confidence inspired by the individual fulfilling these functions; but besides the personal value of the holder of these offices there exists a kind of independent establishment. In the study of the notary, for example, there exists the minutes of all the occurrences relating to the families of the *clientèle*, and the successor continues to be the depositary and guardian of these, which constitute a guarantee for him that he will retain the *clientèle* —a kind of lien to which the doctor can offer nothing analogous. The mode in which the medical profession is exercised assimilates it much more to the profession of an advocate; and who ever dreamed of selling the *clientèle* of an advocate, any more than that of an artist?

Are, then, all treaties for the disposal of medical practices to be regarded as impossible? Certainly not; and even the conflicting decisions that have been delivered on the matter may be reconciled if looked upon from a proper point of view. In M. Guerrier's opinion, the sale of a practice properly so called, and in an absolute manner, is not valid, and so several of the tribunals have decided; but he admits that a practitioner may enter upon an engagement with another that he will no longer practise within a determined distance, and that he will introduce him to his former patients in consideration of a sum of money stipulated and agreed upon between them. This is not a "sale" properly so called, but "an obligation to do or not to do," undertaken by one of the contracting parties, and a refusal to fulfil which would entail upon him a condemnation in damages. Such a distinction seems somewhat subtle, but every time the question has been brought in these terms before the courts the contract has been enforced.

"We are taking quite a practical view of the subject, and from the preceding observations we draw this conclusion—that to a practitioner who is retiring, and is in treaty with anyone who is desirous of becoming his successor, it is of deep

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importance that the contract between them should be drawn up with great precision. The vendor enters upon the obligation to introduce his successor to his ordinary patients and to recommend him to them—this being the 'obligation to do.' But, besides this, he undertakes 'not to do'—that is, not to practise medicine, either directly or indirectly, within a determined radius. If his successor fail, so much the worse for him; but he has no claim to make, providing the vendor has conformed to his obligations and has committed no fraud. Fraud in this matter, as in all others, renders the contract void; and if he has simulated patients or has employed manœuvres to augment the receipts, etc., or, on the other hand, if, after signing the contract, he has continued to visit patients, or has caused them to be seen by others, such acts lay him open to an action for damages on the part of his successor, or for the entire or partial restitution of moneys paid. To sum up: it is not a practice which the doctor purchases, nor is it a right to attend this or that patient; but it is a competitor whom he gets rid of (*une concurrence qu'il fait disparaître*) on the payment of an indemnity proportionate to the profits realised by the practitioner whose place he seeks to occupy."

From the above statement it will be seen that England is not the only country in which special pleading flourishes; and also that the law on the disposal of practices, however fancifully explained, is practically the same in the two countries.

CLINICAL REMINISCENCES.

By PEYTON BLAKISTON, M.A., M.D., F.R.C.P., F.R.S.

No. V.

Treatment of Disease.

The changes that have taken place during the last fifty years in the treatment of disease have been very remarkable. For the most part they would seem to have arisen not so much out of new discoveries in physiology and pathology as from the accurate clinical observations of an increased number of zealous and well-educated practitioners.

At the commencement of this period the bulk of the profession consisted of persons who were in practice previous to 1815, when the law was altered so as to render it necessary for students to obtain a licence, after due examination, in order to qualify them to act as general practitioners, or at least to recover payment for their services in a court of law. In London and the large provincial towns there were, of course, as there always have been, many highly educated physicians and surgeons, some of whom were elegant and accomplished scholars, and some well versed in the scientific knowledge of the day; but the generality of practitioners—or apothecaries, as they were called—were men of very slender acquirements, holding about the same relative position to those of the present day as Parson Trulliber would have done to the clergy as they now are. Like him, when they paid professional visits to the great families of their respective neighbourhoods, they were shown into, and occasionally entertained in, the housekeeper's room; and when a physician was called in they were seldom allowed to enter the sick-room with him, although they had previously been in attendance on the invalid. I witnessed this myself in London only eighteen years ago. At this time, too, medical literature was at a low ebb, and there were but scant means for any interchange of professional knowledge and experience. The expenses and difficulties attending the prosecution of anatomical studies were also great. When I was acting as prosector of anatomy to the late Professor at Cambridge, Dr. Clark, we were seldom able to procure more than one subject for the whole season, which of course was kept in pickle. In this state of things, when it was necessary to demonstrate muscles, tissues, nerves, and bloodvessels all on one subject, the anatomy of regions was well drilled into those who prepared for the lectures; but the students had no opportunities whatever for dissection. In the London schools also at this time there was great difficulty in procuring a sufficient number of subjects.

Under these circumstances it was not to be expected that the mass of the medical practitioners of that day should be noted for refinement or sound practical knowledge. But as talent and energy will force themselves upwards, and rise superior to the difficulties by which they may have been surrounded, some men were found, not only in our largest towns, but occasionally in country districts, very much above their fellows in professional knowledge, learning, and refinement. Two or three of these men I knew in my early days, whose memory stretched back into the first half of the last century. At a very advanced age they were hale and hearty, in no small degree owing to their having done all their work on horseback. The distance some of these men rode in a day would astonish our modern country doctors, who ride in gigs and phaetons—for which mode of conveyance the old practitioners had a supreme contempt.

On reviewing the treatment of various diseases adopted by the generality of practitioners of that time, I fail to discover any leading principles upon which their practice was based. Its chief characteristic appears to me to have been the habit of having a specific remedy for every disease, in the employment of which regard was paid more to the nature of the disease than to the state of the patients, or to the circumstances in which they might have been placed at the time of their illness. Thus they kept by them prescriptions adapted to various diseases; and the skill of a physician was not unfrequently tested by the dexterity with which he could combine a great many ingredients in one prescription, in such a manner that whilst no chemical decomposition took place, several symptoms might be attacked at the same time.

I have now lying before me a conspectus, or pharmacopœia, bound up in a pocket-book I used to carry about with me when a student, at the end of which is an appendix containing "The Art of Prescribing Medicines," in which a number of prescriptions for the cure of various diseases are given, amongst which are the following, taken at random:—In chronic rheumatism, extensive ulceration, mania, and epilepsy. After diarrhœa, in scrofulous tumours, and dyspepsia; in ascites; in worms; in puerperal fever, after bleeding and the exhibition of a clyster; in asthma, and the early stages of phthisis pulmonalis, etc. I have also before me a receipt-book of an old lady of my family of the last generation, containing much the same sort of remedies—viz., consumptive plaster; an excellent salve for wounds; speedy cure for a sprain; for cough; for the dropsy, etc. I was not unfrequently offered by these old practitioners a perusal of their prescription-book, with permission to copy such of them as I pleased, which they considered a priceless boon.

Amidst this chaotic mass of empiricism, however, there cropped up here and there indications of certain *systems* of treatment, more especially those in which *alteratives*, *purgatives*, and *venesection* took the lead.

That which I have styled the *alterative* treatment had not long before been introduced by Abernethy, who, considering that the unhealthiness of wounds and ulcers, and their tardiness in healing, depended on an impure state of the blood, in its turn arising mainly from sluggish action of the liver, endeavoured to promote its livelier action by alterative doses of blue pill, followed by mild purgatives, and continued for some time. From experiments recently made it has been inferred that mercury does not produce an increased flow of bile. Whether this be so or not, this alterative treatment doubtless in numerous instances had a great effect in improving the health and in promoting a better condition of wounds and ulcers. Nor, I think, will any practical man deny the efficacy of an occasional dose of this kind in certain forms of dyspepsia, accompanied by headache and general *malaise*. Indeed, more or less modified, this treatment has maintained its ground up to the present time.

Purgative treatment was carried to an enormous extent by some medical men at the time I am speaking of. I remember both a hospital and a dispensary in each of which was kept a large cask of a solution of senna, salts, and ginger for Dr. A's and Dr. B's patients respectively, which the house-surgeon told me had to be very frequently refilled, as its contents were invariably prescribed for nine-tenths of their patients; and doubtless they could have brought forward numerous instances where gross feeders and persons of sedentary habits, with a tendency to internal venous congestion, more especially of the vessels of the brain or liver, were greatly relieved by this treatment. Here is a case which occurred in my own practice some years ago, and which astonished no one more than myself:—A Liverpool merchant, who had been harassed with r

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distressing cough and shortness of breath for about three years, and had taken every kind of medicine supposed to be suitable for such a case, was sent to the south coast to see what effect its climate might have upon him. He was rather beyond middle age, short, and very fat. His chest, on careful examination, exhibited no physical signs of disease except some slight cooing sounds. His abdomen was very large, and loaded with fat, but beyond this there was an unusual solidity about it, and it felt like a huge mass of dough, giving the impression that it was loaded with fæcal matter. It encroached on the lungs to such an extent that their capacity for air was sensibly diminished. I therefore determined, if possible, thoroughly to unload, in fact to empty, the intestinal canal. So I prescribed an heroic dose of scammony, aloes, guaiacum, and ammonia. The effect was astonishing: an enormous conical pan of an old-fashioned night-stool being filled to the top with semi-solid pultaceous fæces. I dare not guess the weight. In ten days' time the dose was repeated, and it brought away about one-fourth part of the quantity evacuated on the former occasion. No more medicine of any kind was given; but he was placed on a simple and rational diet, very different to what he had been accustomed to. In the course of six weeks he lost four stone weight, his cough disappeared, his breathing became much less oppressed, and he returned home in good health and spirits. Between three and four years afterwards he turned up again, and, being on a little tour for change of air, came out of his way to show himself to me. He had never had a medical man in his house since I last saw him, nor any return of his cough.

This was of course a very exceptional case: still, I fully admit that there are very many cases in which a brisk purge produces the most beneficial effects. But what shall we say of the cases which were of an asthenic character, such as form the majority amongst hospital and dispensary patients, and yet were large partakers of the contents of the "black cask"? I distinctly remember the case of a patient whose bowels became sluggish whilst recovering from an attack of enteric fever; he was ordered a black draught, and died on the night-stool. I have certainly seen, too, more than one case of albuminous dropsy, the pathology of which was unknown in those days, in which serous effusion on the brain, and death, rapidly followed the exhibition of a strong cathartic. But time would fail me were I to attempt to record the numerous instances in which fatal consequences followed this haphazard practice employed in the vain endeavour to eliminate disease from the body.

Venesection was often carried to a great extent, and entered more or less largely into the practice of all medical men of that day. It was almost always employed in *pregnancy, inflammations* of every kind and of every organ, *before important operations, after serious accidents*, and in *hæmoptysis* and *apoplexy*. Besides this, there was a certain number of persons who of their own accord, or by the advice of their medical attendant, were bled every spring or autumn, more particularly in the former season. When I was acting as a dresser at Addenbrooke's Hospital, I have been employed for hours in bleeding such persons, many of whom came from the fen country; and I shall never forget the *satis longitudine* of the house-surgeon at my elbow when quite a beginner.

It was the custom of many practitioners to bleed in some cases four or five times during *pregnancy*, more especially in Scotland, and not only so, but after confinement women were kept for many days upon gruel, tea, and similar slops, with the object of preventing inflammatory attacks. From what I have since seen, it is my firm belief that the health of numberless women, from the lowest to the highest rank of life, was seriously injured by this practice.

With the same object in view, it was the custom of some surgeons in our large hospitals to bleed their patients *before performing an important operation*. I have repeatedly seen delicate strumous patients who were about to lose an arm or a leg thus bled; and I have also seen them some time afterwards succumb to an attack of a decidedly asthenic character. More about this may be learned by referring to a paper of mine published some years ago in the *Medical Gazette*, where it was shown that chest diseases occurring after serious operations or accidents were of an asthenic character.

So, again, venesection was often performed immediately *after an accident*, and I have even seen it practised after a large quantity of blood had already escaped from the wound caused by the accident.

Many practitioners at that time, and for many years afterwards, if not up to the present time, bled in *hæmoptysis*, and I have had sometimes great difficulty in preventing it.

So also in *apoplexy*, by some, bleeding was invariably practised, whatever might have been the appearance of the patient, and whatever may have been the state of the circulation, as indicated by the pulse or the heart's action and sound. Early in my practice I once caused an old woman to be bled: she rapidly sank, and her death has been upon my conscience ever since; for her heart was in a state of fatty degeneration, and there was a moderate-sized clot in the brain, caused by oozing from an atheromatous artery. This was doubtless done in the belief that the mischief was caused by a too large and powerful stream of *arterial* blood forced into the vessels of the lungs and the brain, and not, as is now well known, by the bursting of a diseased artery, or the congestion of *venous* blood. So that when blood had been poured out from a ruptured artery, and a clot had been formed, the strength required by the patient to insure its absorption was greatly diminished by the abstraction of blood.

In *inflammation* venesection was invariably practised. The extent to which it was carried, not only in inflammation, but also in cases of aortic aneurism and hypertrophy of the heart, may be gathered from the works of Bouillaud and other French writers, although in this country possibly it was not pushed so far. I have often, however, seen it carried to a very great extent in cases of pleuritis and pneumonia; indeed, I once heard it said that a patient who had been bled several times in pleuritis had died because he had not been bled sufficiently. How much of this was owing to the word inflammation (derived from *flamma*, a flame) it might be difficult to determine. Once regarded as a burning flame consuming the body, which it was necessary to subdue by bleeding, starving, and cooling, it would matter little whether it was sthenic or asthenic, or whether it occurred in persons of robust vigorous constitution, or in those of weakly frame, debilitated by various causes, in one and all venesection was employed till the inflammation was supposed to be subdued; in many cases, in fact, till the patient died. In a case of puerperal peritonitis, when the woman had been reduced to a very weak state by a difficult and protracted labour, I have seen a large blister applied over the abdomen and dressed with mercurial ointment, whilst sixty or seventy leeches were placed as a fringe around it. How many hours the patient survived the treatment I do not remember. A young woman, an in-patient of a hospital about forty years ago, was labouring under an attack of simple uncomplicated pneumonia; she had been thrice bled, and was taking full doses of tartarised antimony. Although very much reduced, she was progressing favourably, when one day, after a visit from her friends which had in some degree excited her, the physician found her with a flushed countenance, quickened pulse, and a slight return of coloured sputa. He forthwith ordered her to be bled to twelve ounces. Within six hours she died.

They bled, too, in former days, in *enteric fever;* and I have reason to believe that I was rendered fatherless nearly seventy years ago by this means. On the other hand, I feel bound to admit that I have not unfrequently witnessed a very marked and sudden improvement following a copious bleeding. With the exception of a few cases—one of which I have alluded to in the first number of these Reminiscences,—the last one in which I witnessed such a striking amelioration was most remarkable.

About thirty years ago I was called in to see a well-to-do Birmingham mechanic, in consultation with his club doctor. He was labouring under an attack of general anasarca. From the appearance of his countenance and of his skin (which was peeling), and the absence of any sign of cardiac derangement, I came to the conclusion that it was the result of scarlatina. His medical attendant had seen no eruption. It appeared, however, that he was in two clubs, and that from some cause or other he had changed one club doctor for another during the course of his illness. So the doctor who had attended him in the first half of his illness was applied to; but neither had he seen any eruption. On questioning a person who had nursed him, it was found that a red eruption was distinctly observed on the two days which intervened between the attendance of the two doctors. He was passing very little urine, and no medicine of any kind produced the slightest effect on the kidneys. I determined, therefore, to abstract a few ounces of blood, in order to relieve the tension of the vessels, and in that manner assist, if possible, the action of diuretic medicines. For safety's sake he was made to stand whilst he was bled. After

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a few ounces had been taken, he said he felt lighter and better, and in no way sick or faint; so the stream was allowed to continue, and he did not feel in the slightest degree faint until forty ounces had been taken! From that time the kidneys commenced acting freely, and the patient made a rapid and complete recovery. This is a most extraordinary and exceptional case, but such as it is I give it.

Again, in some cases of pleuritis in which there has been very severe pain, and in pneumonia, more especially occurring in persons previously in vigorous health, I have seen very marked and sudden improvement follow copious depletion; but then, on the other hand, in later years I have seen similar cases do as well without any abstraction of blood, although the improvement was not so sudden. But, although this was so, the convalescence was less protracted, and generally the patients have seemed none the worse for the attacks. Now, this is a fact of great importance, and one of the truth of which I feel sure, although I am not now in a position to prove it by statistics. Most old practitioners, indeed, will, I think, agree with me that in the present day recoveries from attacks of acute disease are more rapid, and the patients are left in a better state of health, than they were forty or fifty years ago; and, as a natural consequence, it will be found that chronic diseases, more especially phthisis pulmonalis, are less frequently found as sequelæ of fever and other acute diseases.

It must also be borne in mind that, conjoined with copious venesection in inflammatory diseases, a very low diet was usually prescribed, consisting for the most part of weak tea, barley-water, and gruel, and sometimes the weakest possible broth, so that everything combined to lower the vital force and to weaken the metamorphosis of tissue. The consequence of this would be the formation of a low form of plasma—a kind of typhic deposit, which in some cases might be converted into or become the nidus of tubercular matter, in others might form the basis of chronic articular rheumatism, possibly also giving rise to fibrous nodules in the lungs, and milky patches so often found on the heart.

Such are the varieties of treatment I remember to have seen employed by the generality of practitioners fifty years ago, having these points in common, that specific remedies were employed for each disease, and that venesection was more or less practised in all cases of an inflammatory nature, tonics or stimulants never being given until the inflammation seemed to have been subdued.

(To be continued.)

WINE AS A BEVERAGE OR MEDICINAL AGENT.

The controversy which has been carried on for some time past in the columns of the leading journal respecting the virtues and the so-called "evils" of sherry is one of peculiar interest to the medical practitioner. Sherry is a wine which for a long period has been an especial favourite with the wine-drinking public, and it is of the utmost importance that its real value should be accurately determined. It appears to us that a few words on its influence as an article of diet or a medicinal agent or stimulant will not at the present time be out of place. It may be stated once for all that the manufacture of this wine, when properly conducted, does not deteriorate it in any way—that, in fact, the process resorted to by manufacturers is essential to its production and preservation.

In a warm country like Spain, the pure wine is, no doubt, a grateful and beneficial beverage. It is consumed at the place of its production, and requires no addition of alcohol either to enhance its value or to give it preservative powers. So long as it is retained in the country of its production, then, the addition of alcohol is wholly unnecessary; but the case is very different when it has to travel, and particularly to a colder and very changeable climate like that of England. Then it should have an addition of alcohol to preserve it from a second process of fermentation, and consequently a deterioration of its value either as a beverage or a stimulant. Stripped of all theory, and coming to merely practical results, there is no doubt that sherry as at present manufactured commends itself to the English public, as is sufficiently proved by its increased and increasing consumption in this country. The reason of this is obvious. It is a generous, palatable, and, we may say, a medicinal wine, and has this advantage over claret and other light wines—that it can be kept in a decanter for some days without losing its flavour or strength. The lighter wines, on the contrary, particularly claret, require, if they are to retain their virtue, to be drank immediately the bottles which contain them have been uncorked. In ordering wine as a medicinal agent, the practitioner is mainly influenced by its sustaining power. Alcohol, chiefly in the form of brandy, is undoubtedly in some cases the most efficacious, inasmuch as its influence is more rapid, and, though less permanent, is essential in the treatment. But in other cases, where less urgent symptoms prevail, and a more prolonged sustenance is required, sherry or port, or even claret, are more beneficial. We may illustrate this by the following facts, quoted from a letter of an eminent firm of wine merchants which lately appeared in the *Times*:—"A bottle of strong wine, such as port or sherry, contains generally about one-third of spirit, whilst a bottle of light wine—say claret or hock—contains only about one-fifth of spirit. To put it more simply, three glasses of strong wine represent one glass of brandy, and five glasses of light wine are equal to one glass of brandy." With these facts before him, then, it must evidently be left to the judgment of the practitioner which wine he should order to be taken in the particular case in which he is required to prescribe. Of course we treat the subject of wine entirely in its medical aspect. We have nothing to do with the differences which prevail in the public mind as to the relative advantages of one or another, but we thought it not unnecessary to convey to our brethren some important facts on this subject. To the successful practice of medicine it is essential that the practitioner should be always able to give a "reason" for the treatment he pursues. As wine as a "medicinal agent" is one of the last importance, we offer no apologies to our readers for giving them the information contained in this article.

THE ROYAL NATIONAL HOSPITAL FOR CONSUMPTION AND DISEASES OF THE CHEST, VENTNOR, ISLE OF WIGHT.

We have recently paid a visit to this Hospital, which, through the courtesy of the Resident Medical Officer, Mr. James M. Williamson, M.B., we were enabled thoroughly to inspect, and it is chiefly through his kind assistance that we obtained our information respecting the details of the establishment.

The Hospital is situated in one of the most beautiful parts of the Undercliff, about three-quarters of a mile from the town of Ventnor, on the road to St. Lawrence, and is built on the separate or cottage principle. By the plan originally proposed it is intended to erect sixteen houses in eight blocks, each house providing accommodation for at least six patients, so that each block will contain twelve patients. In the centre of this row of double houses is the chapel, which is just now completed, and was to have been opened about this time by the late lamented Bishop of Winchester, who took great interest in the well-doing of the institution.

Two blocks on each side are now complete. The first pair of houses was opened in November, 1869; the second in March, 1871; the third in February, 1872; and the fourth at the beginning of this year. A fifth block is roofed in on the west or women's side of the chapel, and one of the houses of the sixth block has already been paid for, and the order for its erection was some time ago given by the committee. Thus, then, the original design has within a comparatively short time been greatly advanced, and bids fair ere very long to be entirely carried out.

As consumption is one of the most prevalent and fatal of all the common diseases of our island—so much so that it has truly been termed the plague of England—and as, too, the Ventnor Hospital is reputed to have received the approval of some of the most distinguished physicians of the time, it will be interesting to many of our readers if we briefly describe it, as it is now in working order. It is worth while, too, we think, to ask how far an establishment of this character is likely to answer the purpose of its foundation, and to realise the

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and wishes of its benevolent and munificent donors—how far, in fact, the charity is likely to benefit the class of sufferers for whose relief and cure it is administered. Undoubtedly the site of the Hospital is favourable for patients affected with diseases of the respiratory organs. Standing as it does in more than six acres of ground, it is protected on the west by a row of high trees, and is somewhat sheltered by the Undercliff in the distance; it is backed on the north by woodland extending as far as the Undercliff range; it is sheltered on the east by the rising ground in front of Steephill Castle, and separated from the sea on the south side—towards which all the buildings face—by ground of an undulating character. The locality is remarkably free from damp and moisture, owing to the porous nature of the soil, which allows rain to drain away through several strata until it oozes out into the sea.

The grounds belonging to the Hospital—which are on the south side of the buildings—have been tastefully laid out, and command some very lovely views, so that the situation is admirably adapted for its purpose both from sanitary and æsthetic considerations.

If we turn to the buildings themselves, we find the blocks are of gothic architecture, and built of the freestone of the island, with brick facing, and slate roofs sharply sloping, and with chimneys of red brick standing upwards from them.

The patients belonging to one house are not allowed to enter the other, nor are those of one block permitted to any other block,—this rule is to prevent any over-crowding of rooms or buildings. All the rooms are spacious, with large windows which face the south. On the ground floor in each house is a dining-room, extending nearly the whole depth—from north to south—of the building, and separated by a passage, which connects the north and south doors of the block, from a sitting-room. The dining- and sitting-rooms are all of the same dimensions, and of a capacity of 3100 cubic feet. On the north side of the corridor on this floor are dressers, on which stand all such things as medicine bottles and glasses, candlesticks, etc., none of which are permitted in the dining- and sitting-rooms; also an upstairs kitchen or refectory for the servants, and in which any little thing can be heated or cooked if necessary.

There are six bed-rooms on the first and six on the second floor, and a bath-room in each block on the second floor. Running from east to west on these, as well as on the ground floor, are long corridors separating the offices on the north side from the patients' rooms on the south side of them. All the rooms on the first and second floors open out upon balconies, which run the whole length of the block; so that the patient, when too weak to go down into the grounds, can still get outdoors in fine weather. Along the ground floor runs a verandah, on to which the rooms on this floor open. It is wide enough to accommodate three persons abreast, so that in rough and windy weather the patients are able to take exercise upon it. This verandah serves also the purpose of protecting the houses from heat in the summer and from cold in the winter, and will ultimately be 860 feet in length.

Each bed-room is adapted for one person; those on the first floor contain 1800 cubic feet, those on the second 1650 cubic feet. Each is carpeted and furnished with an iron bedstead with Smee's patent mattress, a dressing-table and mirror, a marble slab washstand, chest of drawers (or wardrobe in women's bed-rooms), and cane chairs.

The sitting-rooms are well carpeted and well furnished with couches, easy chairs, tables, and chiffonier. The dining-rooms and corridors are covered with kamptulicon, which is much liked for its cleanliness, warmth, softness, noiselessness, and durability.

All the rooms are fitted with ventilating shafts and ventilators on such a principle that fresh air is admitted at the bottom, and the vitiated air is let off at the top or side of the room, and conducted by a tube or shaft through the roof; there is also a movable trap over each door, the aperture of which is regulated from time to time by the resident medical officer, and kept locked to prevent the patients closing them, as they are apt to do.

The rooms and passages are warmed by hot-water pipes, the apparatus consisting of coils of iron pipes, through which steam is transmitted from a boiler and furnace in the subway. These coils are placed in the corridors running east and west, one at each end, so that there are six sets of coils to each ...k. The external air is admitted by means of a small ...ork on the principle of Venetian blinds. The temperature of the rooms is not allowed to exceed 62° Fahr. A card of instructions as to how to regulate the temperature of the air, and a thermometer, are suspended in each room.

There is an open grate in each room. The corridors, passages, and officers' rooms are lighted by gas, but gas has not yet been admitted to the patients' rooms, though it is in contemplation to introduce it into the sitting-rooms. None of the walls are papered, but cream-coloured with a material which renders them washable. That this material answers its purpose has just been abundantly proved, as the walls of one block have lately been washed from top to bottom. The doors and woodwork are simply varnished, not painted.

A spacious subway runs beneath the whole length of the buildings—chapel as well as blocks,—and will, when all the blocks are erected, be 860 feet long. In the centre of this subway is the kitchen, furnished with all the modern appliances, gas and otherwise, for cooking on a large scale. By means of the subway the blocks are all brought into communication with each other and with the kitchen, and along it a tram-car runs to convey the viands from the kitchen to each block. This subway was, we believe, altogether an afterthought, and by it an immensity of labour and expense is saved: the saving in service is estimated at two servants to each block, and the money saving is considered to be not less probably than between £300 and £400 per annum.

As all the patients are supposed to be in the incipient stage, the staff of attendants is very small, consisting of one medical officer, and a matron, and one nurse for the whole institution, though a second nurse is about to be engaged. The servants employed are one cook and a kitchenmaid for the whole establishment, and two housemaids to each block.

During the year, from January to October, there had been 150 cases in the Hospital, of which six had died, and at the time of our visit there were thirty-six cases in residence, of which two were confined to bed, one of whom was suffering from strumous disease of the knee-joint developed since admission. Although it is provided by the rules that cases in the advanced stages of phthisis should not be admitted, yet many such cases are sent during the year. This, considering the very limited supply of nursing power retained, is much to be regretted.

There can be no doubt that as a temporary and comfortable health-resort for persons suffering from chest diseases, this Hospital possesses all that can be required. Every attention has been paid, too, in the construction and fittings of the houses to make them suitable for this purpose.

The advantages of separate sleeping apartments, well ventilated, warmed, and of medium size, for patients afflicted with chest complaints cannot well be overestimated: it is more comfortable for the individual, and more favourable to his improvement, and others are not affected and disturbed by the coughing. In fact, it must be admitted that the separate or cottage principle is undoubtedly the best for such cases.

But, to our minds, the Ventnor Hospital, though on the separate, is by no means designed upon the cottage principle; and the governors were, we consider, bound to change, as they have done, the name of the institution from "The National Cottage Hospital" to "The Royal National Hospital for Consumption and Diseases of the Chest," or to some other more significant name than cottage hospital. The true cottage-hospital system is that which provided for the medical or surgical treatment of cases in a well-ordered dwelling of the cottage type, and where the inmates reside during the whole or a part of their illness, amidst surroundings of the same simple and unpretending character as those of their own homes. But in the houses which constitute this Hospital there is nothing of the cottage character; the rooms and furniture alike are of a fair middle-class description, totally dissimilar from anything seen in the homes of the labourer or artisan, and altogether likely to strike them as of an unaccustomed luxurious kind. They are such as would satisfy many a well-to-do tradesman or professional man; but then this class of persons, even when necessitous, are not likely to avail themselves of a kind of boarding-house residence, in which they will be thrown into daily contact with others of a very different social status and education.

But the lower class of patients, who will be the persons chiefly to use the Hospital, do not, we feel sure, receive unmixed benefit from the Hospital. Admitted only, according to the rules, in the incipient stage, retained only three months unless a fresh letter of recommendation is procured, and not re-admitted until at least twelve months have expired from the

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date of departure, there must be many who leave the Hospital to spend the later days of their lives in circumstances felt all the more acutely, and rendered all the more distressing and obnoxious, by the comforts and luxuries which they had enjoyed during their stay in this home; and which, had they never been inmates there, they would never have known, and consequently never have missed.

We cannot help thinking that the style of place is much more adapted for middle-class patients not altogether necessitous, but who could partially, if not entirely, keep themselves, though they cannot afford the expense of renting lodgings away from their own friends and families. For farm-labourers, servants, mechanics, and patients of that class it is unsuitable, because it supplies them for a time with the conditions of a home altogether of a superior character to their own, and which they can only enjoy during the earlier period of their illness. There are many middle-class persons, the victims of diseases of the chest, who would greatly benefit by a change from their homes to such a locality, and who would be very grateful for the benefits of an institution in which they, while preserving their independence by defraying the cost of their own keep, would be under the care of an experienced medical officer, and be protected from the extortionate charges of lodging-house-keepers and the discomforts of lodgings.

THE CHOLERA EPIDEMIC OF 1872 IN NORTHERN INDIA.

Dr. J. M. Cunningham, Sanitary Commissioner with the Government of India, has published a Report on the Cholera Epidemic of 1872 in Northern India, forming the first section of his Ninth Annual Report, of which the complete annual volume is not yet ready for publication.

The disease was not confined to Northern India; it prevailed anew in the West, and continued in the South, where it seemed to be dying out during the close of 1871, and although more circumscribed than during the previous year, the mortality which it occasioned in that part of India was but little less; and in Bengal proper it showed a greatly increased activity, not only in the endemic area, but in the regions beyond it. Among the people of British India, during 1872 more than 165,000 deaths were ascribed to cholera alone, and of this mortality more than half occurred in the district comprised by Bengal proper, North-Western Provinces, Oude, and Punjaub. There is every reason to believe that the number falls very far short of the truth. In the European army of India there were 888 cases among men, women, and children, of which no less than 615 were fatal. But 817 of these cases, and 559 of the deaths, occurred among the British troops in Bengal, this appalling mortality being chiefly confined within two months of the year.

During 1871, Upper India was singularly free from the disease. In the whole European army of Bengal there were only 41 cases—fewer than had occurred for a long series of years; up to the end of October there had been only 16. In Madras, cholera was widely spread, but the European troops can be said to have suffered only at Secunderabad, where the outbreak in May accounted for 74 out of the total of 76 cases in the whole Presidency. The Bombay army furnished but two cases altogether. In Eastern Bengal, where there is no European garrison, the Sepoys suffered to some extent, and the disease also attacked several of the gaols. At the end of that year, however, there was a marked increase of the disease within the endemic area and in the Eastern Provinces, while about the same time there were signs of movement further up. In Calcutta the deaths from cholera attained their maximum in November, and remained nearly as high in December. In November an outbreak occurred in H.M.'s 96th Regiment at Dinapore, and almost simultaneously in the gaol at Patna, seven miles distant. In the same month the troops at Lucknow were attacked, and a remarkable outbreak occurred in the outskirts of Delhi, the details of which have appeared in the Sanitary Report for 1872.

The statistics of the general population in 1872, although defective, have been found to be of considerable value, as the general distribution of cholera over India which they represent agrees in a singular manner with the well-ascertained facts regarding the disease in those communities which are under careful observation. Throughout the endemic area there was generally observed a continuance in the early part of the year of the cholera which had prevailed in the end of 1871. As a rule, no great increase took place until November, when there was a decided rise in the deaths, which was still more strongly manifested in December. The statistics of Calcutta are in accord with those of the outlying districts. Commencing with a mortality of 80 in January, and 81 in February, mortality may be said to have declined to 61 in September; in October it rose to 86, in November to 181, and in December to 248. The total deaths from cholera in Calcutta during 1872 were 1142; in 1870 they had been 1563, and in 1871 there had been a minimum of 800.

In Oude the disease passed over the province from south-east to north-west in two belts—one south, parallel to the left bank of the Ganges; and the other north, parallel to the left bank of the Gogra,—leaving the intermediate district comparatively free. In the Punjaub there was no excessive prevalence in any one district, but there appears reason to believe that at least some part of the mortality was concealed by the people from fear of quarantine and of separation from their friends when attacked by the disease. The districts lying to the west and north-west escaped in a remarkable manner. In the Cashmere territory cholera was severe. Affghanistan escaped, but Bokhara suffered severely. Meshed, the capital of Persian Khorassan, and Astrabad, to the westward of Meshed, at the south-east corner of the Caspian, were attacked. Although widely spread, the epidemic does not appear to have been severe. The disease was said to have been brought by a caravan of pilgrims, who had lately arrived from Meshed.

The Central Provinces were generally free. The fluctuations in the disease to which this part of India is subject are very remarkable. In 1869 nearly 60,000 persons died of it; in 1870 the number was 107, in 1871 it was only 19, and in 1872 it was 1592. The disease was confined to the south and south-west, and in twelve out of the total of twenty-one districts no deaths from cholera were registered. More than half of the total cholera deaths of the province occurred in Nimar.

In Bombay Presidency, cholera was much more active than it had been in the previous year. In 1871 the deaths were only 5821; in 1872 they amounted to 15,642. The increase was chiefly in the southern parts. Scinde escaped; the Khelat country beyond was also free. In the Native States of Central India the disease was widely spread, but was not generally severe. In Rajpootana also it prevailed in a few places.

In the Madras Presidency the disease was more circumscribed than in 1871. It was most severe in the north-west districts, in which its history accords in a remarkable manner with the statistics of the adjoining tract of Bengal proper. In British Burmah the mortality from cholera amounted to 640. The disease was almost entirely confined to the Arracan division, where it was chiefly prevalent in Akyab.

As may be seen by a glance at the map which accompanies the Report, the epidemic extended out of the endemic area, upwards on the north-east, downwards on the south-west, and upwards again through the eastern districts of the North-Western Provinces, and through Oude to Peshawur and far beyond our frontier, while side by side is the tract which either altogether escaped or suffered so lightly that it cannot be included in the epidemic area, and which commences at Chota Nagpore, just outside the endemic area, and stretches for many hundreds of miles to Ajmere, Scinde, and Cabul.

Even in the epidemic area the proportion of places that suffered was often very small. Among other instances cited in illustration is the district of Nimar, in the Central Provinces, in which the cholera deaths reported were only 78 from out of 588 villages. This result may be partly due to imperfection in the registration, and partly also to the fact of only fatal cases having been recorded; but it may still be accepted as a truth that even within the epidemic area cholera is often confined to particular localities.

In the European army of India, out of a strength of 77,235, including men, women, and children, there were 888 cases of cholera, of which 615 were fatal. The disease was in the main confined to the Bengal Presidency, where 817 of the cases and 559 of the deaths occurred. In the Madras Presidency there were but 5 cases—4 at Secunderabad and 1 at Kamptee, of which 2 were fatal. In the Bombay Presidency occurred 66 cases—53 at the stations in Central India, 11 at Poonah, and 2 at other places; 54 were fatal.

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From the table given by Dr. Cunningham, we observe the respective admission and death rates per 1000 to have been—

		Admitted.	Died.
Bengal	Men	16·0	10·7
	Women	23·5	15·9
	Children	21·7	16·5
Madras	Men	0·4	0·2
	Women	0·7	—
	Children	—	—
Bombay	Men	4·2	3·3
	Women	6·8	6·8
	Children	4·6	3·8

As a whole, the women and children suffered more than the men, but reference to the detailed tables shows that results in this respect varied greatly at different stations. The statistics of the European army generally bear out the history of the epidemic among the general population: we have the prevalence in the eastern districts, and the immunity enjoyed over the exempted tract. One remarkable feature in the record is the occurrence of the disease at hill stations. In no previous epidemic have the troops quartered in them suffered so generally. Chuckrata, Subathoo, Dugshai, Kussowlie, and Murree were all attacked, and at the last three the outbreaks were severe.

Among the native troops in Bengal there occurred 377 cases and 247 deaths. The ratio of admissions per 1000 was 7·5, and of deaths 4·9. The most severe outbreak was early in the year among the men returning from the Looshai expedition. At Meean-Meer, Peshawur, and Kohat there were also many cases, but as usual the Sepoys suffered very much less than the European troops. Excepting the places above mentioned, the cases in no instance exceeded 10.

The prisoners, as a rule, preserved a remarkable immunity during the year. The disease among them was most severe in Behar, and at Fezzabad there was a violent outbreak. The gaols at Meerut and Lahore suffered to some extent, and there were slighter outbreaks in those at Umballa and Roopur, but as a whole the cases only equalled 8·8 and the deaths 3·9 per 1000, a result which in an epidemic year must be regarded as very satisfactory and affording a pleasing contrast to the experience of former times.

NATIVE MEDICINE AND SURGERY IN THE SOUTH SEA ISLANDS.

By the Rev. SAMUEL ELLA,
Of the London Missionary Society at Uvea (one of the Loyalty Islands).

DURING my visit to England, I have often been asked for information regarding the customs of the South Sea Islanders in their treatment of the sick and surgical operations. Some of these customs are so very singular and surprising as to call forth doubt respecting the correctness of our information, although we speak from personal observation and inquiry. It may be interesting to know something of their peculiar pathological ideas and therapeutics. Perhaps some new "pathy" may be suggested, or "errors of our system" (so often deplored) be pointed out and corrected.

Among these children of nature, the practice of medicine and surgery is treated entirely as an occult science, and confined to a limited and privileged few, who are objects of great veneration, and supposed (often with good reason) to hold the powers of life and death in their hands. In the New Hebrides and other groups, there is a very fetish idea regarding sickness and disease, and almost every ailment is suspected as the effects of witchcraft. On the islands of Tanoia and Erromanga there are more disease-makers than doctors—men who are the very terror of their fellow-countrymen. So great a dread is caused by the imaginary powers and occupations of these wizards, that life is embittered by constant anxiety and suspicion. Every cast-off garment and every scrap of "broken victuals" must be destroyed or buried, lest such things should be used for charms to produce the desired injury to the persons to whom they belonged. On several islands, maladies and disease are treated solely by jugglery (as among the American Indians also). The profession there are mere conjurers, who generally combine the two offices of priest and doctor. They suppose they can exorcise a disease as an evil spirit, often by transferring it to another victim. In some instances a charm would be suspended before the sick, to which he was required to look until he recovered (or otherwise). Sometimes they would attack the disease in a warlike attitude, by brandishing a spear as before an enemy, and threatening to thrust it through.

Among several of the Eastern Polynesian tribes, as the Tahitians, Samoans, and Tongans, therapeutics takes a more sensible form, and has called into operation a pretty considerable pharmacopœia, chiefly obtained from the vegetable kingdoms. Whilst we have amongst us a few quacks very conceited in respect to their nostrums, the majority of native doctors use a large variety of agents in their materia medica, chiefly plants, and in strong allopathic doses. Some of these are of undoubted efficacy, and worthy of chemical investigation; others are quite worthless, and not a few seriously mischievous. The Loyalty Islanders, and also natives of other groups, drank large quantities of sea-water as emetics or aperients, or emmenagogues, on the first appearance of the emmenia. Bathing in the hot sulphurous springs, as on Tanna, is resorted to for this latter purpose; but I never heard of the waters being taken internally as a medicine, nor of the medical use of the crude sulphur abounding there. These hot springs are frequently used for the vile purpose of producing abortion.

The surgical operations of these natives are of a very primitive and remarkable character. Bleeding is freely and fearlessly practised in most inflammatory disorders, and deep gashes are made on the limbs and body without much regard to situation, and often with very serious consequences. The instruments employed are merely fragments of shells or sharp stones, pieces of glass, sharks' teeth, or large thorns. Furunculi, ulcers, and even deep-seated abscesses are opened by such rude implements. Wounds are never closed by strapping or sutures; they are simply covered with a piece of the germ of a banana leaf, or cotton in lieu of lint. They also employ a clumsy kind of tourniquet, or try to choke excessive bleeding by numerous tight folds of the native cloth (or *tapa*) made from the bark of the paper mulberry (*morus papyrifera*). Amputation was never resorted to, and is now greatly dreaded, even by those under civilised medical care. One of my servants amputated his own finger in a very rough and novel manner. He was suffering from whitlow, and during my absence he went into a workshed, took a chisel, held it upon his finger, got a companion to strike the chisel with a mallet, and cut cleanly through the second joint of the phalanges. He soon found that a second amputation was necessary. Another man operated upon himself for femoral hernia, and cut away a portion of the intestine. The operation of course was fatal. For hydrocele and abscess, or inflammation of the testis, they do not hesitate to resort to castration, although frequently death ensues.

Active cauteries are sometimes employed. In Tonga and Samoa there is a vine the juice of which is so pungent as to cauterise as effectually as potassa fusa, corroding very deeply. This I saw used on a paralysed limb. The patient succumbed more from the effects of this sharp remedy than from the disease.

A very surprising operation is performed on the island of Uvea, in the Loyalty group. A notion prevails there that headache, neuralgia, vertigo, and other cerebral affections proceed from a crack in the head or pressure of the skull on the brain. The remedy is to lay open the scalp with a cross or T incision, then scrape the cranium carefully and gently with a piece of glass until a hole is made into the skull down to the dura mater, about the size of a crown-piece. Sometimes this scraping operation will be even to the pia mater by an unskilful surgeon, or from the impatience of the friends, and death is the consequence. In the best of hands about half of those who undergo the operation die from it; yet this barbarous custom, from superstition and fashion, has been so prevalent, that very few of the male adults are without this hole in the cranium, or "have a shingle loose," to use an Australian phrase. I am informed that sometimes an attempt is made to cover the membranes of the cranium so exposed by placing a piece of cocoanut-shell under the scalp. For this purpose they select a very hard and durable piece of shell, from which they scrape the softer parts and grind quite smooth, and put this as a plate between the scalp and skull. Formerly the trephine was simply a shark's tooth; now, a piece of broken glass is found more suitable, or less objectionable (if we may even so qualify the act). The part of the

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cranium generally selected is that where the coronal and sagittal sutures unite, or a little above it, upon the supposition that there the fracture exists. Among the war weapons used on the island is a sharp-pointed club, resembling a bird's head and beak, or old Saxon pick (two indifferent specimens of which may be seen in the Crystal Palace). This club was esteemed as an efficacious weapon by the native warrior, as reaching with ease that point of vulnerability.

This bone-scraping remedy is likewise employed in cases of rheumatism in old people. The cuticle is incised longitudinally, and the centre of the ulna or tibia laid bare; then the surface of the bone is scraped with glass until a large portion of the external lamina is removed. I never found one who had undergone the operation that said it had been efficacious in the object sought. They were still rheumatics, and some suffering great additional torture from the adhesion of the skin to the bone in the progress of cicatrisation.

It will be a relief to turn from these rough and barbarous surgical operations to another and gentler mode of native treatment for headache, neuralgia, etc. This is peculiarly a domestic process—a kind of home *kinnesipathy*, of shampooing, finger-pressure, or friction. An interesting sight may often be witnessed by a visitor to the native huts—a woman sitting cross-legged on the ground with the head of her husband or son in her lap, pressing slowly and heavily with her hands, or merely the tips of her fingers, the forehead, temples, side, and upper part of the head in her lap, shifting her hands from one place to another, and during this soothing manipulation singing or humming a low gentle tune. Soon the moans and groans of her patient are hushed, or changed for other sounds, and the soothing operation has acted more beneficially than an opiate, and her patient sleeps, generally to awake with the headache or neuralgic attack entirely gone. The arms and legs are treated in a similar manner, but oftener by tight compression with the hands, quickly shifting from one spot to another of the aching limb. Friction with the hand is employed for a variety of cases. I was once called to see a woman who had been suffering from abdominal dropsy. Friction had been used in her case after the application of the caustic juice of the vine, previously mentioned, until a hole had been rubbed through the parietes of the abdomen. Fatal inflammation supervened, as one might have expected.

Many other interesting facts might be mentioned, but these will be sufficient to give a general view of the state of the medical and surgical arts in the South Sea Islands. Under evangelistic and civilising influences these barbarous practices are being abandoned, and more civilised and appropriate modes of treatment adopted. Many of the missionaries have, more or less, studied medicine and surgery for the benefit of the people among whom they labour.

PROVINCIAL CORRESPONDENCE.

BIRMINGHAM.

December 31.

THE GAOL SURGEONCY—CHRISTMAS AT THE CHILDREN'S HOSPITAL—THE LATE DR. WEBB—EXTENSION OF THE MIDLAND INSTITUTE BUILDINGS—PROGRESS OF THE MEDICAL CHARITIES IN THE PAST YEAR—SANITARY CONDITION OF THE TOWN DURING 1873—THE ADULTERATION ACT—THE LATE DR. EVANS.

THE appointment of Surgeon to the Gaol has at length been made. There were as many as seventeen candidates, many of them men of good professional standing and of more than average ability. This keen competition may be accounted for by the fact that the stipend is still £200 a year, and not £100, as the thrifty party in the Council wished and tried hard for it to be. Mr. Waterson, who had acted as *locum tenens* forsome time, was almost unanimously elected, and from the manner in which, it is said, he has performed his temporary duties, there is no doubt that he will be an excellent officer.

The profession has heard with much sorrow of the death of Dr. Webb, of the *Medical Times and Gazette*, whose editorial labours were well known and appreciated here.

The sick-poor of our medical charities have not been neglected at this festive season. On the contrary, every effort has been made by the authorities and friends of these institutions to make them forget their troubles and pains by a liberal display of generosity in catering, in the shape of balls, dinners, Christmas-trees, etc. At the Children's Hospital—quite the favourite hospital in Birmingham with the ladies—the little sufferers had a special treat: a Christmas-tree laden with a heterogeneous selection of toys, so precious in the eyes of the "infantry." Need we say that both young and old, rich and poor, healthy and sick, partook with varying degrees of gratification of the pleasures so kindly and abundantly provided for them by those who—to their honour be it said—at this joyous time found their own happiness enhanced by so administering to their needy and less favoured brethren; and surely Christmas to them will be thriced blessed.

The Midland Institute, the great centre of education here for the middle classes, has by its magnificent operations burst its present boundaries. Its scheme and organisation have been so good, supplying such a want, that there is not sufficient room for the members attending the classes. This prosperous state of things necessitates an extension of the building, and this is shortly to be carried out on a large scale. So goodly a report does the Institute present to the public, and so telling are the facts on which it bases its claim for further support, that within a very short period, and from a few persons only, the handsome sum of £15,000 has been subscribed in sums varying from £500 to £100, which augurs well for the quick realisation of the £30,000 which is required to complete the enlarged edifice, which, when finished, will be a striking and standing memorial of what Birmingham citizens can do in the way of education.

The old year, so far as our town is concerned, has not been uneventful in medical topics. For instance, the General Hospital has, by its famed musical festival, added large sums to its ever-yielding and rapacious coffers. Its wants are great, and its demands are greater still. The sister institution, the Queen's Hospital, in a generous rivalry, has added to her already noble proportions; with pavilion accommodation, and new out-door department, she opens her doors to an ever-ready and increasing crowd of applicants. The Children's Hospital, too, is growing in favour more and more, and is the *beau ideal* of medical institutions in the eyes of mothers and the feminines; and so on with the other minor charities—the year seems to have blessed them all with abundance and prosperity; even the Homœopathic Hospital is not left out in the cold. It is found to be too small by its partisans, who have already taken measures, and obtained subscriptions, to enlarge their unique building—for it is unique in this age of enlightenment. We may mention, also, with satisfaction that the clinical teaching at the General and the Queen's Hospitals is now common to both. This, in times gone by, was a great stumbling-block to students, and a cause of ill-feeling between professors, the removal of which speaks highly for the amity and concord which now exist between the officers of these grand institutions.

The death-rate for the past year has not been exceptionally high. Small-pox and scarlet fever, with a sprinkling of typhoid and diarrhœa, have been the chief epidemics; but they have not been so virulent as to cause any great outcry. Small-pox, however, has been the most stubborn to contend with; for when it was thought to be got under, it would appear again with unabated vigour. Even at the present time there are sufficient cases in the town to give rise to some uneasiness. The public health has also engaged the serious attention of our civic authorities, and with their "sewage" measures, and the appointment of an officer of health, it is hoped that the sanitation of the town will be well and amply protected.

There has been no wholesale poisoning of the public by impure water or adulterated milk, so that the "new Act" which takes cognisance of such matters has had its terrors.

With these and other events, together with more than we have space to enumerate, our medical year has been occupied. Some have been of a happy, others of a saddening character—such as the death of Dr. Evans, which the profession has to deplore, for he was one of the oldest and most distinguished of its physicians. It may be shortly said of Dr. Evans that, if he died not ripe in years, he fell to sleep in the full maturity of wisdom and renown, beloved alike by his friends and the profession of which he was so striking and shining an ornament.

ROYAL MUNIFICENCE.—From the will of the late Prussian Queen Dowager, it appears that all her servants and attendants are to retain their salaries for life; in addition, she has bequeathed to Dr. Grimm, her physician-in-ordinary, a country house.

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GENERAL CORRESPONDENCE.

BLOODLESS OPERATIONS AND ELASTIC LIGATURES.

LETTER FROM MR. JOHN ERIC ERICHSEN.

[To the Editor of the Medical Times and Gazette.]

SIR,—In your leader of to-day you refer to some remarks that I made on the "finality" of operative surgery in the introductory address which you did me the honour to publish in your journal last October, and you couple your observations with the subject of "bloodless operations." But the method of operating is by no means new, either in principle or detail. I saw it practised by Mr. Clover more than twenty years ago in all respects as now done, except that he used a tourniquet without a pad instead of the vulcanised tube; and I have for many years past —certainly in and since the edition of 1864—mentioned it as a matter of common professional knowledge in the "Science and Art of Surgery." Esmarch can lay no serious claim to being the originator of the method. He has the merit of having extended its application to other cases than amputations of the limbs. The tight bandage is as unnecessary as it may be injurious. The Edinburgh plan of securing bloodlessness in amputations—viz., by simply raising the limb perpendicularly for a few minutes, stroking it gently with the hand from below upwards, and then very quickly and very tightly screwing up the tourniquet band—is perfect, and does away with the danger of compressing inflamed and infiltrated parts by the application of a tight roller applied upwards.

The use of Dittel's elastic ligature appears to me to be simply a return to mediæval barbarism, with the aid of modern appliances. What I have seen of it in practice would certainly not encourage me to have recourse to it for the strangulation, the fetid necrosis, and slow separation of tumours.

London, January 3. I am, &c., JOHN ERIC ERICHSEN.

ARSENICAL POISONING.

[To the Editor of the Medical Times and Gazette.]

SIR,—I am six feet high, over fifty years of age, slight, fair of exceedingly active habits, and accustomed to a great amount of walking exercise daily; I have lived all my life within sight and smell of green fields, and have never had the slightest suspicion of either asthma or hay fever—which latter fact I mention here because my symptoms, detailed below, were mistaken by myself for an aggravated attack of the latter malady.

In the spring of the present year I re-papered a small garden room in which I usually spend about two hours of the latter part of each day, adjourning there after a late dinner to read for about an hour, and later still before retiring to rest, for the purpose of smoking one "dry" pipe; no other person in the house ever occupying it at all. The paper selected was green, very green—nothing could have been greener, save perhaps the act of placing it there; it was a green pattern on a green ground, and being an inexpensive paper the colour easily came off on rubbing it, as I subsequently found. The room is small, one wall slightly inclined to dampness in any change of weather, and when the gas is lighted, which it invariably is at dusk, soon becomes somewhat more than warm. The re-papering took place in May; by the end of the month, after a week or two of being told that I was "looking ill," nasal symptoms set in with great severity—my nose became slightly red and swollen, the mucous membrane irritable, with a constant defluxion, attended by sudden and violent fits of sneezing; my voice became nasal, my eyes felt dim, whilst my taste and smell entirely disappeared. I had a painful sense of weight in the frontal sinuses, and a most sickening sensation as of soddened membrane, alternating with a still more nauseating impression of grease (exactly as if a tallow candle had been blown out) at the back of the fauces. It was utterly impossible for me to breathe through my nose; indeed, I can confidently assert that for three months I had no "breath of my nostrils." The mucous membrane at the back of the throat looked unhealthy, and the urine was scanty and high-coloured. Night intensified all my ailments. I never had from the beginning of June until the end of September a single night of unbroken rest; I lay awake the greater part of the night with my mouth wide open, with a painful, often alarming, sense of impending suffocation. On rising in the morning violent sneezing fits would cause the ejection of great quantities of glairy mucus, which would pour from the nose on stooping forward and making a forced sudden expiration, without, however, restoring the power, even temporarily, of breathing through the nose.

All this time, strange to say, I did not feel "ill" (that I looked so was undoubted, as I was told it on all hands), neither did my bodily health appear to fail, nor my appetite become impaired (albeit I could taste nothing). I continued much in the same state until September 2, when my miseries at night seemed to culminate. I passed a dreadful night from the most profuse discharge of thin fluid from the nose; I was compelled to sit up in bed the greater part of the night with a handkerchief to my nose. If I removed it for a moment I felt the fluid running down my chin and neck; if I lay down exhausted I felt it running down my throat. My tongue on the following morning was literally as white as the paper on which I now write, this being the only occasion on which I remember observing any approach to a "silvery" appearance. My next night was still worse, for I then experienced for the first time in my life all the horrors of spasmodic asthma, which harassed me in short attacks nearly the whole of that night. Three days after this I left home, going first to Malvern; and here it is especially to be noted that on the following day my nasal symptoms nearly left me, and that from that day I regained the power of breathing through my nose. I must here also observe that on one previous day in August, when I ran down by boat to Linton from Bristol, and slept there, on waking in the morning I found I had the same facility of breathing, losing it again on my return home in the evening. I did not, however, at Malvern lose the asthma, as I generally had one attack nightly, and lasting from one to two hours. Each attack came on after I had slept about three hours, when I awoke with a sense of oppression in the chest, which induced a cough and the expectoration of glairy mucus. I felt I had to get rid of a certain amount, and I did bring up a large quantity. Each paroxysm of cough, however, slowly developed the asthmatic fit, when I turned out into the dressing-room, and lighted a pipe. I first used tobacco, afterwards datura tatula. A very few whiffs of either speedily stopped both cough and asthma, and enabled me to get to bed and to sleep again. I remained at Malvern about a week, and then went to the seaside, near Southsea, and lived on the sea or by the sea all day, but became decidedly worse as regards the asthma, in addition to which I had now for the first time severe dyspepsia; eating meat especially produced violent asthmatic attacks. I really believe on two occasions I should have died if sudden vomiting had not come to my relief, bringing an instant and complete cure for the time. I now felt so ill that I determined to go to London for advice. I made an appointment with, and saw, Dr. George Johnson, telling him I was suffering from the effects of hay fever, which I then thought had been the case. At that time, however, all active symptoms of it had disappeared. To relieve the dyspepsia I was ordered a tonic of nux vomica, hydrochloric acid, and quinine, which had a most beneficial effect. After the third dose I observed that for the first time for nearly four months the sense of smell was restored, and the same evening at dinner I found I could distinguish each article at table by both smell and taste. The following day I returned home and to practice—contrary, however, to the doctor's advice; but I was compelled to do it, however unfit. The same evening, on entering the little room, I was seized with a violent fit of coughing, and it was during this that it suddenly flashed upon me for the first time that all my train of symptoms had commenced at the exact date at which the room had been re-hung with the green paper. I had a portion of it examined the following day by an analytical chemist, and it was found to contain arsenic largely, his remark to me being "I have seldom seen a more dangerous paper."

In taking a mental survey of my condition I incline strongly to the opinion that it was due to arsenical poisoning derived from the paper on the wall, and not to hay fever. 1. The commencement of my illness was exactly coincident with the re-papering the room (which I had previously occupied, precisely in the same manner, for upwards of three years without inconvenience). 2. The active symptoms—suffocation, nasal irritation, profuse discharge of mucus, etc.,—always being intensified at night, just as I had quitted the room, and remitting in the morning. 3. Also on the only two occasions on which I left home, once for one night only, afterwards when I went away altogether, I was free from all nasal disturbance. On the other

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hand, many of the symptoms of arsenical poisoning were unquestionably only "conspicuous by their absence." I had no abdominal pain or disturbance until quite recently. The bronchial symptoms, although they commenced certainly before I left home, became much worse afterwards. I had no irritation of the eyelids, no thirst, nausea, eruptive disorder, nor, as far as I observed, any characteristic appearance of the tongue. The whole force of the poison, of whatever kind it was, seemed concentrated on the nasal and faucial mucous membrane. The absence of abdominal disturbance might be explained by the fact that I was taking a great amount of exercise in the open air, and that I was fully able and willing to take food freely.

At the time I was taken ill, hay fever was unusually prevalent. I had some, and I heard of many more, patients, and I quietly accepted it as a fact that I had that complaint, and sought for no further explanation of my symptoms. Recent observations and investigations have proved so conclusively the reality and importance of such sources of disease, that I have felt it right to lay my experience before your readers, and I have endeavoured to do so in as plain a form as possible. I regret the conviction came too late to enable me to make observations of a more accurate nature or any chemical examinations of the secretions, sputa, etc. I tried of course many remedies, once actually, at the suggestion of a medical friend (not Dr. Johnson), taking arsenic for four days; but as I derived no benefit whatever from any remedy, it is useless to detail them. Apologising for the length of this paper, I am, &c.,

D. E. H.

THE TREATMENT OF SNAKE-POISONING.

Letter from Professor G. B. Halford.

[To the Editor of the Medical Times and Gazette.]

Sir,—In a number of your valuable journal (June 14, 1873) appears a letter signed "Vincent Richards," on the subject of snake-poisoning and its treatment by the direct or intra-venous injection of ammonia. That letter discloses what I have long thought—viz., that the Indian medical men do not know so much about snake-poisoning in the human subject and its treatment as do the Australian practitioners. Here, nearly all cases are soon seen by medical men, and they become a source of fearful anxiety on the part of everybody, the symptoms and the results of treatment being carefully noted. Speaking on behalf of the medical profession in Victoria, I may say that any surgeon allowing a man to die from snake-poisoning without injecting ammonia into the patient's veins would be greatly condemned; and I think rightly so too. Mr. Richards cannot see why we should ascribe more efficacy to this mode of treatment than to others. Here are two cases which I hope, should they not instruct him, may possibly some of your readers.

The first case is that of Dr. Scott, of Belfast. It is very full, and as valuable as full:—"On February 27, Mrs. F. was brought to my residence, Belfast, stating that she had been bitten by a snake whilst looking for eggs, less than an hour before she came to me. Her neighbours had at once put a tight ligature round her leg immediately above the bite, which was three inches below the knee. One of her children, a little girl about eight years old, had sucked the wound for a considerable time, so that she drew a lot of blood from the wound. I pinched up the skin and parts around the bite with a large tenaculum, and cut them off. As the woman did not exhibit any alarming symptoms I determined to treat her by giving her brandy and ammonia, so long as she did not vomit; in case she did so, I had determined to inject ammonia. She complained occasionally of giddiness, but nothing else, and I may say never had a bad symptom afterwards.

"About eleven o'clock, or seven hours after the mother had been bitten, a messenger came for me to go to Killarney at once, as the child who had sucked the wound was dying. In a few minutes afterwards the child was driven to my house, as the friends of the child were afraid it would not have lived till I got to see it, so they drove into the town. On inquiry, I found that the child had been very ill for about four hours; had been vomiting, very drowsy, and moaning at intervals. On examining the child I found some excoriations on each side of her lips; she was in a state of collapse, and covered with a cold clammy sweat. The pulse was imperceptible; the pupils very much dilated. The child had been given brandy, but did not keep it on her stomach. I considered this a fair case for the injection of ammonia. On looking at the arm, which was very round and fat, I saw the difficulty of getting into a vein, especially by candle-light; at the same time I observed one of the superficial veins of the back of the hand to be of a good size. I at once tied a piece of tape tightly over the wrist, so as to make the vein stand out more prominently. I then exposed the vein for about half an inch, added ten drops of strong ammonia to half a drachm of tepid water, and filled my hypodermic syringe with it. When I had passed the nozzle of my syringe into the vein, I cut the ligature on the wrist, and quickly injected the contents. In about four minutes the child sat up, to the surprise of everybody, and seemed quite merry. Her face became slightly flushed, and she seemed slightly intoxicated for ten minutes or a little longer. In half an hour she said she felt 'quite better,' and took some tea. From this time she never complained. The wound on the back of the hand was healed in three days. I am satisfied that this child's life was saved through the ammonia injected into the vein."

That the little child must have sucked vigorously the mother's wound, and saved her, is certain, and that the poison entered by the cracked lips is equally sure. If with the point of a lancet or edge of a penknife you scratch or abrade the surface of the skin of such an animal as a dog, especially where it is thin, as on the inner sides of the limbs, and then smear over a little snake-poison, death results as certainly as if the venom had been injected under the skin.

The second case is from Dr. Laidman, of Maryborough:—"On the night of February 23 I was called to visit G. T., a navvie on the Castlemaine line, who had been bitten on the wrist by a brown snake. I arrived at Kelly's Hotel, Carisbrook, at twenty minutes past eleven, and saw the man, who was then being walked up and down the street with a supporter on each side of him. He was in a very exhausted condition, and had been given brandy and ammonia by Dr. Howell at intervals which were not clearly described to me. Seeing the condition of affairs, I at once (after consultation with Dr. Howell) injected the median basilic vein of the right arm with twenty-five drops of liquor ammoniæ fortissimus. The effect of the injection was such that in fifteen minutes after it the man, who was before prostrate, cold, and insensible, lying on the table of the commercial room, with every symptom of speedy dissolution, got off the table, and was conscious that he wanted to go outside. Of course he was a little 'staggery,' and was assisted. When he returned he was placed on a sofa, and slept, but not uninterruptedly; for some hours there were many muscular twitchings. After the injection, the pulse, from being fluttering and impossible to count, became at ten minutes past twelve, 96, and at a quarter to six, 80. From the time of the injection of the ammonia there was not a bad symptom further than what I have related. The recovery was perfect, and the wound healed readily, without any sloughing. The people present in the room seemed perfectly astounded at such a result from the injection. I can only, in addition, say that I was myself fairly surprised at the success; it exceeded all expectation, and, using the language of one of the gentlemen present, 'By ——, sir, it was like magic!'"

There is one point upon which I have always insisted, and that is, as soon as symptoms occur indicating that the poison has been absorbed, inject with ammonia at once, and repeat it as often as necessary. It is true that by so doing you include both slight and severe cases; but who is to know at that time the one from the other? Many such instances of difficulty of diagnosis and error of prognosis may be found in the cases recorded both here and in India. By the last mail that reached us here, there is a case of cobra-poisoning reported either in your journal or in the *Lancet* (I have not the papers by me now, and the mail is on the point of leaving), in which for one hour no serious symptom occurred, and ammonia and brandy were given by the mouth, but shortly after this time worse symptoms came on, and the man was dead in a quarter of an hour more. The surgeon reporting the case remarks that there was no time to try the injection of ammonia. But now let us suppose, for the sake of illustrating my point, that, in imitation of the practice here, ammonia had been injected soon after the bite—*i.e.*, within the hour,—and that the man had recovered: what would the surgeon himself and everybody else have thought? Why, that it was only a slight case—a very slight case,—and whether he had been treated or not he would have recovered; and yet we now know these very slight symptoms ended in death in one hour and a quarter! Hence I trust you will see that I am justified in recom

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mending no delay after the first symptoms show themselves. It has been said that we include cases of fright in our list of snake-poisoning; but the majority of us are not such ignorant practitioners as that; and, further, our treatment is the outcome of several years of patient and laborious experiment.

As I hope you will have found space for the previous papers I have sent to you on this subject, probably Mr. Richards will gain therefrom the other information he desires.

I am, &c., GEORGE B. HALFORD.

Melbourne University, September 9.

P.S.—Mr. Richards accuses me of not publishing the unsuccessful cases. In answer to this I beg to state that I have published every case, successful or unsuccessful, that has occurred in the colony. He does not seem to know that my experiments on the lower animals have been published. I would also add that in my first communication to you on snake-poisoning (July 26, page 91), I endeavoured to show that the strength of the poison of our snakes equalled at least that of the cobra di capello. Dr. Macbeth says the cobra kills fowls in about eighteen minutes, and I stated that I had preserved no notes as to the time required by our snakes to kill birds, but I thought that it was quite as short. The other day I found accidentally one or two notes on this subject, which, for the completeness of the case we are considering, I had better transcribe, and which I hope you will do me the favour to publish:—

Copy of Notes.

"September 10, 1867.—Tiger snakes being disinclined to bite, killed one to obtain its poison. With this inoculated a pigeon in the thigh. It began to sit down in three minutes, soon after commenced gasping, became convulsed, and was dead in seven minutes from the application of the poison.

"September 11, 1867.—Inoculated a pigeon in the thigh by merely scratching the integument and smearing on the poison. In two minutes the pigeon sat down, and in two more became convulsed and died at once—in all, four minutes."

REPORTS OF SOCIETIES.

THE PATHOLOGICAL SOCIETY.

TUESDAY, JANUARY 6.

Sir WILLIAM JENNER, Bart., F.R.S., President, in the Chair.

THE report of the Morbid Growth Committee on Mr. Wood's specimen of Scirrhus of the Male Breast was read. The characters of the tumour were found to be those of scirrhus, but there were peculiarities of great interest. Both the alveoli and the bands of interalveolar stroma were very variable in size. Hæmorrhage had taken place into some of the alveoli, converting them into blood-cysts, and groups of hæmatoidin crystals were found in parts of the stroma. In some places the vessels of the stroma projected partly into the alveoli, and the largest of these processes were so distinct as to resemble closely the Malpighian glomeruli of the kidney. Such vascular villous growths are considered peculiar to soft cancer by Rindfleisch, and characteristic of erectile or hæmatode carcinoma by Cornil and Ranvier. The present case is probably the first on record in which they have been found in scirrhus.

Mr. NUNN exhibited a cast of an Enchondromatous Tumour on the Chest, which he had shown at a previous meeting. The tumour had been growing for two years from the ribs under the pectoral muscles. It closely simulated a cystic tumour between the pectoral muscles and the ribs, and it was tapped more than once with the effect of removing a quantity of viscid fluid.

Mr. NUNN also exhibited a specimen of Pendulous Tumour from the Pubes, of doubtful nature. The growth was removed by operation from an omnibus-driver of forty, who had first observed it many years before. The tumour had been variously interfered with by the patient himself and by a horse falling on him. It might be called a specimen of molluscum, into which hæmorrhage had taken place. (Referred to the Morbid Growth Committee.)

Dr. SILVER showed specimens of Heart, Lung, Liver, and Kidney from a patient the subject of Mitral Obstruction. He said: G. I., then a youth of sixteen, was first seen by me in December, 1871. He was undersized and badly developed, and he had a history of more than one attack of rheumatism. He had all his life been short of breath, and latterly had suffered from palpitation. In November of that year he brought up some mouthfuls of blood without coughing, and continued to bring up blood to the time of his admission. On examination an extended apex-beat was visible, and over it a distinct thrill was very perceptible. Where this thrill was most intense a loud churning sound was audible, ending in a short, sharp clicking sound; but, tested by the carotid pulse, this churning sound was presystolic; the second sharp sound was the real first sound totally altered in character. No true second sound was audible at the apex, but at the base the sounds followed in due sequence, though the second sound was sometimes reduplicated, and the pulmonary second sound was always much sharper and more accentuated than the aortic. The pulse was very irregular, sometimes intermittent; but there was no sign of anything being wrong with the right side of the heart beyond hypertrophy, with some degree of dilatation. What was very peculiar was an impulse sometimes seen in the third left interspace, antecedent to the apex-beat and coincident with the presystolic sound. The diagnosis was a pure mitral stenosis, without regurgitation and without alteration of the left ventricle, hypertrophy of the left auricle, chronic congestion of the lungs giving rise to the hæmoptysis and breathlessness, and marked hypertrophy of the right ventricle. Again this last year he came under my care, his condition greatly altered for the worse; for whereas in 1871 there was no sign of tricuspid regurgitation, that was now manifest, and he was suffering from considerable œdema of the lower extremities. Cough and breathlessness were constant, and he brought up some phlegm, but no blood. The old rhythm of the heart-sounds could no longer be made out, and this continued to the end. He died during the recent fatal fog, which no doubt accelerated his death. The post-mortem examination showed the mitral orifice greatly narrowed, and with one or two little warty beads on its edges, but the valves were competent. The left auricle and the right ventricle were enormously hypertrophied, and the tricuspid orifice greatly dilated. The right auricle was also very large. The lung-tissue was dense, hard, and had undergone marked brown induration. The liver was large, hard, and nutmeg. The spleen was also larger and harder than usual, as were the kidneys. In all probability this condition of the mitral orifice was congenital, though the small warty bodies were probably deposited in one or other of the attacks of rheumatism. Curiously enough, the boy's sister suffers from a similar malformation, if I may call it so. The case is, however, mainly of interest as affording a typical example of pure mitral stenosis and its consequences, and as affording an insight into the mechanism of presystolic bruit and thrill.

Dr. DOUGLAS POWELL inquired as to the history of rheumatism in the patient's mother. In the cases of pure mitral obstruction seen by him, no history of rheumatism in the patient could be obtained. The subjects present signs of early chest disease—distorted sternum and laterally-compressed thorax.

The PRESIDENT drew attention to the difficulty of discovering the presence of rheumatism in children, and briefly related two cases in illustration. In the first, a child had passed through an attack of acute rheumatism at the age of twelve months without the discovery of the true nature of the disease; in the second, a child walked into the out-patient room with rheumatic pericarditis.

Dr. POWELL replied that he had been unable to trace a history of rheumatism in the cases he had referred to, with a full knowledge of the facts pointed out by the President. Neither had the diseased mitral orifice a rheumatic appearance post-mortem. In rheumatic cases the valves are thickened and stretched tightly across the orifice, with a mere slit in the centre.

Dr. SILVER said he had not inquired into the history of the patient's mother. The patient, he repeated, had suffered several times from acute rheumatism. A sister still living had mitral disease, with a presystolic bruit; but there were evidences of the left ventricle also being enlarged.

The PRESIDENT believed that the occurrence of a funnel-shaped or of a button-shaped mitral opening in cases of stenosis depended on the condition of the chordæ tendineæ, whether they were shortened and thickened or not.

Mr. BUTLIN exhibited a specimen of Recurrent Sarcoma of the Thigh. The patient, a female, had the primary growth removed by amputation of the limb in St. Bartholomew's Hospital in July. The tumour affected the lower end of the

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thigh, and was found to present the appearance of fungus hæmatodes, and to consist histologically of spindle-shaped sarcomatous cells. The patient was temporarily relieved of the disease, but returned in the beginning of December, when a thickening was found on the outer side of the stump, apparently connected with the bone. The limb was removed at the hip. The specimen presents a large mass of cancer-substance and blood connected with the stump, but scarcely attached to the bone, and a gelatinous material extending upwards between the muscles of the thigh and outside the periosteum. The microscopical characters are nearly identical with those of the primary tumour. Two important points about this case are—the original seat of the disease, which was probably periosteal, and not osseous; and secondly, the fact that an enlargement of the inguinal glands which existed before the operation had considerably subsided since.

Mr. Arnott said that during the last few years all the specimens of such soft, breaking-down malignant tumours which he had examined had proved to be sarcomata, and not carcinomata, and the majority of them sarcomata of the spindle-celled variety. In reference to the enlargement of the inguinal glands in such cases, Mr. Arnott pointed out the importance of the knowledge that in spindle-celled sarcomata the lymphatic glands are hardly ever involved in the morbid process, but merely enlarged by irritation.

Mr. Morrant Baker showed a specimen of Abscess in the Tibia. A man had suffered for fifteen years with pain and enlargement of the upper part of the leg, ending in abscesses and sinuses. Six months before admission, a fresh abscess opened in the popliteal space. On examination the upper part of the tibia was manifestly enlarged, and the corresponding part of the leg was riddled with sinuses. Amputation was performed at the knee, when it was found that the joint and the femur were perfectly sound. The whole upper part of the tibia was occupied by a well-formed abscess which had burrowed into the surrounding soft tissues. The specimen was a typical one of a rare disease; and the case was further remarkable in the non-involvement of the joint.

Mr. Coupland exhibited Muscles affected with Trichina. A man, aged 33, died in the Middlesex Hospital, under Dr. Greenhow, with chronic phthisis and recent acute bronchitis. There was striking muscular wasting, and orthopnœa was extreme. Post-mortem, all the voluntary muscles were found crowded with calcified trichinæ; even the tensor tympani muscle contained specimens of the parasite. The heart was not affected. It was calculated that about seventy-five millions of trichinæ must have been present in the muscles. The worms were chiefly perfect specimens. In one cyst there were found two trichinæ. Information showed that the patient had probably caught the disease nine years before in New York, where he suffered from a nearly fatal illness called "enteric fever," without diarrhœa.

Dr. Cobbold said he had seen but a single case in which the trichinæ were more numerous than in the present. In regard to the mode of migration of these parasites, it is becoming daily more probable that they and many others are at some stage or other of their life hæmatozoa. It is remarkable how the symptoms of trichiniasis vary in different cases in respect of intensity and seriousness.

Mr. Thomas Smith asked whether the cysts were calcified, and whether experiments had been made in the reproduction of the disease.

Dr. Coupland replied in the affirmative to both questions. The animals experimented on were still lively.

Dr. Headlam Greenhow said that the emaciation of the patient and the impaired movement of his chest during life were very remarkable, so that the case had struck him as resembling one of muscular atrophy. In the absence of extensive phthisis, death appeared to him to be probably due to weak expectorant power in an acute bronchitis supervening on chronic lung disease.

Dr. Coupland also showed a specimen of Suppurating Lymphatic Gland which opened into the Trachea. A delicate, precocious child of four years was six weeks in the Middlesex Hospital last autumn; suffering from occasional attacks of dyspnœa of doubtful cause. He was readmitted in November with the same complaint, and on December 18 tracheotomy was performed by Mr. Morris for the relief of a most severe dyspnœal attack. The operation was not followed by relief, and the child died in a fit of shortness of breath on December 27. Post-mortem it was discovered that the mediastinal and neighbouring cervical glands were enlarged, so that the tracheal bifurcation was almost completely surrounded. Close above the left bronchus there was an ulcerated opening in the trachea, and through this a cheesy plug passed loosely into the air-passage. On the inner side of the upper lobe of the left lung was an ulcerated cavity as if from pressure. The lungs contained a few small tubercular masses.

Dr. Lennox Browne asked whether there was evidence of much pressure on the trachea. He believed an exceedingly slight diminution of the calibre of the trachea gave rise at times to alarming dyspnœa, and described a case in point of slight syphilitic stricture of the trachea in an adult.

ASSOCIATION OF MEDICAL OFFICERS OF HEALTH.

Saturday, December 20.

Dr. John Liddle in the Chair.

Mr. Rawlings, of Hartlepool, read a paper, "On the Sanitary Arrangements in the Colliery District of Durham, more especially in relation to their Moral Effects upon the Population." The paper was divided into three parts—first, a statement of the morality of the district; secondly, an account of the sanitary conditions obtaining in the district; and thirdly, the relation between these two, and the reforms necessary to obviate the great evils which undoubtedly exist. We append a summary of the paper. After giving some statistics of crime, Mr. Rawlings proceeds as follows:—The county of Durham has the unenviable notoriety of being, for its size and population, the worst in the kingdom with regard to the number and magnitude of the criminal cases continually being tried before its assizes and quarter sessions. The local newspapers and persons living in the district are glad to try and account for this unfortunate fact by saying that, in consequence of the great demand for labour and the very high rate of wages paid to workmen, men are attracted from all parts of the United Kingdom, and that to these strangers is due the greater number of criminal acts. Undoubtedly it is the fact that many men dismissed from their employment elsewhere for crimes or misbehaviour here find a means of obtaining their livelihood; but, if the cases of crime are analysed, we still find a very large number are to be attributed to persons born and bred in the county. The county of Durham has a population of about 700,000: of this number I should think about 200,000 or 250,000 may be taken as obtaining their livelihood by means of the coal-pits. Now, I am not prepared to state that all the crime in the county emanates from these colliers, but I do say that more than their proper proportion must be ascribed to them, and that to them must be placed the greater proportion of crime of a rough and wild nature. Immorality in the relations between the sexes is most common. I do not mean that immorality which is associated with large towns; but these pitmen almost all marry and then (often by mutual consent) dissolve the connexion. Wives are even put up to auction and sold to the highest bidder. Drunkenness and obscene and blasphemous language are fearfully common, and the expressions made use of in ordinary conversation, often by children of tender years, are such as to shock even those whose sensibilities are not of the acutest description. What can be more likely to produce a degraded and brutal nature, and an absence of those finer feelings which tend to make social life pleasant, than living in badly built unsanitary houses crowded together around the very mouth of the coal-pit? I now come to the second part of my paper—viz., the sanitary condition of the pit villages. I know that some are well built, and supplied with every convenience, and, of course, under the Public Health Act of 1872, all new houses are obliged to be built with some regard to sanitation; but the great majority of the pit villages are in such an unfortunate condition that they almost defy description—they may, indeed, be stated to be conglomerations of houses or hotels placed down indiscriminately anywhere, at the caprice of the builder, without any pretence whatever of sanitary arrangements. When the coals in this county were first worked, science had not made the vast strides that it has lately, and little comparatively was known of the extent or nature of the coal-fields in the immediate vicinity of the pits that were being worked. Again, the price of coals was not what it is now; indeed, to be the proprietor of a coal-pit was to be a person entitled to commiseration. Men more frequently lost than made fortunes in this hazardous adventure. The natural consequence of all

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these facts was, that as the county was very thinly populated, and it was absolutely necessary to provide houses for the workmen which might at any moment become untenanted in consequence of the stoppage of the works, these cottages were built upon the cheapest sites and from the lowest specifications. The site chosen was generally in the immediate vicinity of the coal-pit—on the very ground which the smoke and dust from the works rendered unfit for any other purpose. Thus you often see a number of cottages, containing a population more than sufficient in the South of England to entitle them to a charter of incorporation, crowded into some little damp valley, with a total disregard to all sanitary arrangements whatever. The cottages are mostly built in rows with the backs of two rows opposite, and the back street thus formed is often not more than 15 ft. or 16 ft., sometimes even 6 ft. wide, and into it all the refuse and excrement from the houses are thrown, generally with no regard as to where they fall; as a rule there are no ashpits. In the vast majority of instances there are no privies or water-closets; all the acts of nature have to be performed either in the crowded cottage or immediately outside, and this, of course, in all weathers. I have personal knowledge of one large village containing a population of over 6000 (in fact, there are two villages situated so closely together that the streets are almost continuous), in which I have been told that there are only two privies or water-closets, and these are attached to the houses of the clergyman and the head viewer. I am afraid I am overstating the case, as I believe there are privies to the school; but with these exceptions this large town is totally destitute of any convenience whatever. Perhaps someone may say, "Surely the doctor will have accommodation to his house!" but I am sorry to have to say that, as a general rule, the position of medical man to a colliery is anything but an enviable one. In nearly all the villages there are no proper arrangements for the purpose of draining the streets and carrying away the liquid refuse from the houses; often everything is thrown out into the street, and allowed to make channels for its own escape, or else sinks into the ground and completely saturates it. I think it is Dr. Whitmore who observes that the best sanitary arrangements for the poor are "coals, blankets, and food." I would add to these a supply of water, sufficient in quantity and pure. Undoubtedly a good supply of food and clothing enables the poor, and especially the young, to resist the ravages of disease, but I would ask what effect have they in preventing the occurrence of typhoid fever, which is essentially the fever which prevails where there is bad and insufficient drainage? Now, in the colliery districts there is, as a rule, a want of none of these necessaries; the men, earning from 8s. to 10s. a day, are enabled and do provide themselves and their families not only with the necessaries, but often with the luxuries of life. In some poor miserable hovel that one would hardly consider inhaitable you will find most expensive furniture, in another a piano, and in others cases of stuffed birds, etc., etc. The water-supply is nearly always abundant and good, as it is in most cases, and might be in all, derived from the coal-pit, whence it is pumped up in great quantities; it proceeds from the limestone, and, with the exception of being very hard, is most pure, and quite free from organic matter. I have, during the time that I have been medical officer of health, only had to report on one water supplying a village as being unfit for drinking purposes, and this water was not derived from the coal-pit. The coal districts are, as a rule, healthy—that is, considering the neglect of sanitary arrangements; and it is my opinion that the death-rate might easily be reduced to 16 or 17 per 1000 per annum. The death-rate for my own district for the quarter ending March 31, 1873, was 18 per 1000 per annum; that ending June 30, 19 per 1000; and that ending September 30, 22 per 1000. More than one-half of the deaths occurred in children of one year of age and under. During the first quarter the deaths from fever were at the rate of 3·33 per 1000 per annum; during the second quarter, 1·75 per 1000; and in the third quarter, 1·5 per 1000. The accidental deaths were in the first quarter at the rate of 1·125 per 1000 per annum; in the second quarter, 1·25 per 1000; and in the third quarter ·0625 per 1000. Most of the deaths from fever are due to typhoid, enteric, or scarlet fever, typhus fever being almost unknown. I think I have shown from statistics taken from my own district, which may be considered a typical one, as it contains nine or ten large colliery villages, that the inhabitants are not generally unhealthy, with one exception—viz., that of the excessive mortality amongst young children. I have taken some trouble to investigate the cause of this, and have arrived at the following conclusions:—Young children are the first to suffer from the effects of insufficient drainage, bad ventilation, and overcrowded houses, their delicate organisms not having the same stamina wherewith to withstand the effects of these prejudicial agents as those of persons of more advanced age; and there is an unfortunate tendency amongst the inhabitants to supply their very young children with food utterly unfit for their digestive organs. Whereas nearly the whole of the population of this country has vastly improved in both their moral and physical conditions, the bulk of the natives of the colliery districts have remained stationary. The pitman coming home after spending his six or eight hours in his perilous employment, and finding nothing pleasant or nice about his own house, in far too many instances goes to the public house, where his large earnings enable him to obtain an almost unlimited quantity of intoxicating liquor. In drawing the conclusions at which I arrive, I may state that the absence of all sanitation in all ages has always had the effect of degrading the minds of men, and the recognition of the laws of hygiene has always accompanied the advance of civilisation. If moral qualities are developed by external physical circumstances, I say that to an even greater extent are the morals of a population degraded by association for generations with impure physical conditions, and I do affirm that the influence of these prejudicial agents has a greater effect upon the minds than upon the bodies of men. I have proved that the morality of the county is bad; how is it to be accounted for unless upon this hypothesis? Education is not worse than elsewhere, and the wages of the workmen are great. I now will, in conclusion, make a few suggestions with regard to the measures which, in my opinion, should be adopted to improve the moral condition of the inhabitants of this county. Medical officers of health should be appointed for large districts—say of 100,000 acres in area, and of a population of 100,000,—and on no account whatever should they be permitted to practise privately in the districts over which they have the supervision. Strict attention should be directed to the plans of new houses that are to be built, and as the old houses go out of repair they should be pulled down, and others built in a more suitable situation. It is unfortunate that the inhabitants view with such apathy the condition of their dwellings. The pitmen are only too ready to combine for other and less useful purposes, and were they for one moment to insist that their cottages should come up to a certain standard, and be ready and willing to pay something out of their large wages for improved accommodation, the coal proprietors would have neither the will nor the power to resist their most just and reasonable demands. Fewer public-houses should be licensed at the colliery villages; and had the men more suitable and comfortable houses, with little gardens attached, we should soon see a wonderful falling-off in the lists of those drunk and incapable. I think I have, to a certain extent at least, proved that moral advancement does not precede, but immediately follows, physical amelioration.

OBITUARY.

THOMAS WORMALD, F.R.C.S.

To the long list of distinguished members of our profession who have died during the past year is now to be added the worthy Senior Consulting Surgeon to St. Bartholomew's Hospital, "Honest Tom Wormald," as he was familiarly and not undeservedly called by a host of pupils and friends.

After a sound preliminary education, he commenced the study of the medical profession under the most favourable auspices, by an apprenticeship to the justly celebrated John Abernethy, and consequently a student of St. Bartholomew's Hospital. To his distinguished master he was articled by the Royal College of Surgeons, after the customary examination in Latin, on March 6, 1818, and on the payment of the then usual premium of five hundred guineas. With Abernethy he soon became an especial favourite; and on the completion of his hospital studies he immediately offered himself for examination, and was admitted a Member of the College on March 5, 1824. Before this he had assisted as Demonstrator of Anatomy in his hospital. Being an excellent artist, he published, in conjunction with the late Mr. A. M. McWhinnie, some anatomical diagrams of great use to the students. After visiting the Continental hospitals to see the surgical practice

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and treatment of cases, he returned to London, and in due time, in virtue of his apprenticeship to a hospital surgeon, and great industry and popularity with the students, was elected Assistant-Surgeon to St. Bartholomew's; but, owing to the long tenure of the office of Surgeon by his predecessors he was not appointed full Surgeon until nearly the time for the compulsory resignation of the office had arrived. He only held the appointment of Surgeon for a few years—an injustice he always felt acutely, and in which many sympathised with him. As some consolation, he received a handsome testimonial from the governors of the hospital in his immediate appointment to the high office of Consulting Surgeon, the document conferring the appointment adding that "the Court cannot permit the long, faithful, and efficient services of Mr. Wormald to terminate without expressing its high sense of the admirable manner in which those duties have been performed, and specially marking the humane and unremitting attention ever manifested by him towards the poor patients committed to his charge during the long period of nearly thirty years. In appointing him Honorary Consulting Surgeon they were convinced that "it would gratify him to have his name associated with the hospital which he had so long, well, and faithfully served, and in the hope that he might be enabled to devote all the great skill, energy, and power of which he is still happily possessed to the benefit of suffering humanity." And well did he deserve the unbounded confidence reposed in him. As an operator Mr. Wormald was not what is termed brilliant—he was slow, but sure; but an old pupil, now a distinguished provincial hospital surgeon, has told us that he never had a fatal case of lithotomy in the hospital. As a writer he had contributed but little, and with the exception of the work already mentioned and a few papers in the *Medical Times and Gazette*, and one or two in the *Transactions of the Royal Medical and Chirurgical Society*, we are not aware that he published anything.

Having sketched his hospital career, it will be interesting to notice his progress at the Royal College of Surgeons, where he in time filled all the highest offices, having been elected in the first batch of Honorary Fellows of that institution on December 11, 1843. Justly aspiring to a seat in the Council of his College, he consulted his friends on the propriety of offering himself for one of the vacant chairs at the annual election in 1849, when he was informed that a club had been formed, arrogating to itself the name of "The John Hunter Club," but having a purpose, which, if possible, would tarnish the lustre of that name, and from which the upright mind of its assumed patron would have recoiled. The object of this clique was to exclude certain candidates—Mr. Wormald amongst them—and to promote the election of its nominees. The *Medical Times and Gazette* was the first to notice and expose this iniquitous association (*see* vol. xix., p. 663, *et seq.*), and in the same number Mr. Wormald published his manly address to the Fellows, showing that he had every legal qualification, and no moral disability whatever for the object of his ambition, and that his public and professional character depended upon the result of the election. Great was the excitement as the day approached; long before which, however, the friends of Mr. Wormald felt that he was safe,—the very means taken against him by the club was telling in his favour. On Thursday, July 5, 1849, the Fellows assembled—somewhere about 200—when, the other candidates having been duly proposed, Mr. Guthrie, a former president, rose, and, with that significant and brusque manner for which he was so well known, and in great silence, proposed Mr. Wormald as a very fit and proper person to occupy a seat in the Council; the proposition was immediately supported by Professors Owen and Paget, amidst great cheers. The election proceeded, and Mr. Wormald, in conjunction with the late Messrs. Hodgson, Pilcher, and Bishop, obtained his seat; it was a great triumph, and most grateful he was for the high opinion he felt the profession had for him. In 1857, Mr. Wormald was appointed Hunterian Orator, when he delivered an admirable address before a large audience. This discourse was published at the express desire of the Council, by whom he was elected the following year a member of the Court of Examiners, the important duties of which he performed with justice to the public and the candidate under examination. Many a nervous student will remember the friendly pat on the back, and the expression "Now, don't be frightened, old fellow." If the nervousness continued, and the student failed to see the drift of the question, he would seize a pen, and, being a capital artist, would at once make a sketch on the paper before him, and rarely failed to obtain a satisfactory answer; but woe betide the student who endeavoured to fence with the question—he would see through the manœuvre at once, and sharply address him on it. As an examiner he was highly popular—and no wonder, for he would often say to one of the officials—speaking of a rejected candidate—"Tommy, send that poor fellow over to Bedford-row(a) to-morrow morning, and I will see what I can do for him"; and often has his kindness in this respect taken a truly practical form.

In 1865, Mr. Wormald received the highest honour his colleagues could confer on him—viz., the President's gown, the onerous duties of which post he performed to their entire satisfaction.

Not being re-elected on the Council, he felt he should retire from the Court of Examiners: this intention he carried out when the time arrived, and thus ceased all official connexion with the College; but he would frequently visit his old friends there, and in the shooting season, being an ardent sportsman, and having a fine estate to shoot over, would not forget to send them some game. In possession of an ample fortune, he was enabled to exercise his great generosity. Only a few months since, when the family of a deceased hospital colleague was found to be in straitened circumstances, he sent to his old friend and former pupil, Mr. Luther Holden, a cheque for 100 guineas, with a letter expressive of his deep regret for the widow and family. He had previously sent a similar amount for the widow of one of the Professors at the College of Surgeons; and these and many other acts of great generosity were carried out in the most unostentatious manner. His death, which took place on Sunday, the 28th ult. at Gomersal, Yorkshire, was no doubt owing to an act of fraternal affection. When suffering from a severe cold, he received information that his brother was ill, and, regardless of himself, he started in the late inclement weather for the North to give his professional aid. In a day or two he himself was attacked with cerebral apoplexy, from which, under the kind care of Mr. Teale, of Leeds, and the local practitioner, he seemed to be recovering. But on Sunday morning, when he was about to descend to breakfast, he was again seized, and died the same evening within a few days of reaching his seventy-second year.

Mr. Wormald, who was a most affectionate husband and father, leaves a widow to whom he was most devotedly attached, three sons, and three daughters. His remains were brought to London, and interred, in a strictly private manner, in pursuance of his wishes, at Highgate Cemetery on Monday last.

FRANCIS XAVIER HEENEY, M.D. Glasg.,

Died on October 12 last, at Ipswich, Queensland, aged 70. The deceased gentleman was born in 1803, at Castledawson, in Ulster. He was educated at the Belfast Academic Institution. He studied medicine first as the pupil of Dr. M'Lean, of Castledawson, and subsequently at the University of the State of New York. He proceeded to France in 1831, and obtained the certificate of the Faculty of Medicine in Paris, and in 1839 graduated as M.D. at the University of Glasgow. He went to Queensland in 1863, and resided in Brisbane for three years. He then came to Ipswich, where he has practised ever since. During his residence here (says the *Ipswich Observer*) he enjoyed a high reputation in his profession, and was esteemed amongst a large circle of friends as a gentleman of humane disposition, kind-hearted and considerate, especially when the poor were concerned, full of integrity, and benevolent in the extreme. He was one of the honorary visiting surgeons of the Ipswich Hospital, and when the Hibernian Society was started he was elected first president of the Ipswich branch. He was full of that enterprise and energy for which Ulster men are so famous, and the intelligence of his death was received with universal regret throughout the town.

JOHN THOMPSON DICKSON, M.A., M.B. Cantab., M.R.C.P.L.

We regret to announce the death, suddenly, of disease of the heart, on the 5th inst., of John Thompson Dickson, M.A., M.B. Cantab., M.R.C.P.L., Lecturer on Mental Diseases at Guy's Hospital, aged 32 years. We shall next week give a short notice of his life.

(a) His residence was 42, Bedford-row.

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MEDICAL NEWS.

APOTHECARIES' HALL.—The following gentlemen passed their examination in the Science and Practice of Medicine, and received Certificates to practise, on Wednesday, December 24, 1873:—

Powell, Harold Macaulay, 383, Wandsworth-road.
Pocock, Frederick Ernest, Hill Martin-road, Camden-road.

On Thursday, January 1, 1874:—

Jones, William Roberts, Tremadoc, North Wales.
Paul, Frank Thomas, Pentney Swaffham, Norfolk.
Williams, William, Drim, Fishguard.

The following gentleman also on December 24, 1873, passed his primary professional examination:—

Bell, John Duncombe, St. Bartholomew's Hospital.

On January 1, 1874:—

Crossman, John, St. Thomas's Hospital.

APPOINTMENTS.

*** The Editor will thank gentlemen to forward to the Publishing-office, as early as possible, information as to any new Appointments that take place.

CRAVEN, R. M., M.R.C.S. Eng., L.R.C.P. Edin.—Resident Medical Officer to the Convalescent Hospital, Southport, *vice* E. Day McNicoll, L.R.C.P. Edin., resigned.

CREAN, RICHARD, L.K.Q.C.P., L.M., L.R.C.S.—Assistant-Surgeon to the Manchester Eye Hospital.

ETCOURT, HENRY, M.R.C.S. Eng.—Assistant-Surgeon to the Manchester Eye Hospital.

MULES, P. H., M.D, M.R.C.S. Eng., L.S.A.—Assistant-Surgeon to the Manchester Eye Hospital.

WATERSON, JOHN, M.R.C.S. Eng., L.S.A.—Surgeon to the Borough Prison, Birmingham.

WYNTER, HUGH BOLD, M.R.C.S. Eng, L.S.A.—Surgeon to the Surrey House of Correction, Wandsworth.

BIRTHS.

FAIRBANK.—On January 5, at Moulsey House, Windsor, the wife of Thomas Fairbank, M.D., of a son (prematurely).

LANCHESTER.—On January 5, at Lansdowne-road, Croydon, the wife of Henry T. Lanchester, M.D., of a daughter.

MALLAM.—On December 31, at Oxford, the wife of H. P. Mallan, M.R.C.S. Eng., L.S.A., of a daughter.

MORRIS.—On January 5, at 13, Somers-place, Hyde-park-square, the wife of James Morris, M.D., B.A., F.R.C.S. Eng., of a son.

SHONE.—On December 27, 1873, at Great Marlow, Bucks, the wife of W. J. Shone, M.R.C.S. Eng., L.S.A., of a son.

WIGMORE.—On December 31, at 31, Inverness-road, Hyde-park, the wife of William Wigmore, M.R.C.S. Eng., of a daughter.

MARRIAGES.

FRASER—DUNCAN.—On January 6, at All Hallows, Tottenham, Middlesex, Thomas R. Fraser, M.D., F.R.S.E., to Susanna Margaret, eldest daughter of the Rev. R. D. Duncan, London, and granddaughter of the late Rev. Professor Duncan, D.D., Edinburgh.

GRIFFITHS—PACE.—On January 1, at St. Mark's, West Hackney, G. de Gorrequer Griffith, L.R.C.P., M.R.C.S. Eng., of Lupus-street, Pimlico, son of the late Rev. J. Griffith, Rector and Prebendary of Dysart, Ireland, and nephew of the late Col. G. de Gorrequer, K.H., etc., to Edith Camilla, youngest daughter of Henry Pace, Esq., of Hackney,

DEATHS.

ATTWATER, SOPHIA ISABELLA, the wife of A. W. Attwater, L.R.C.P. Edin., M.R.C.S. Eng., L.S.A., at Wickham, near Newcastle-on-Tyne, on January 5, aged 24.

BARNETT, HENRY, M.R.C.S. Eng., L.S.A., J.P., at 13, Montpelier-row, Blackheath, on December 27, in his 69th year.

BESLEY, FRANCIS BERNARD, M.R.C.S. Eng., drowned, at Lower Wairau, New Zealand, on September 27, 1873, aged 34.

DICKSON, JOHN THOMPSON, M.A., M.B., M.R.C.P. Lond., M.R.C.S. Eng., L.S.A., F.L.S., Lecturer on Mental Diseases at Guy's Hospital, suddenly, on January 5, in his 33rd year.

MACGREGOR, JOHN JAMES, M.D., at Portland House, Brunswick-square, W.C., on December 30, 1873, aged 65.

REED, FRANCES, widow of William Hendy Reed, M.D., D.L., Underdown, Pembrokeshire, and eldest daughter of the late James Thomas, Esq., J.P., Lamphey-park, Pembrokeshire, at Eaton-place, Pembroke, on December 26, 1873.

WHITING, JOHN, M.D., M.R.C.P., M.R.C.S. Eng., formerly Lecturer at Guy's Hospital, at Hereson, Ramsgate, on December 30, 1873, in his 83rd year.

WORMALD, THOMAS, F.R.C.S. Eng., of Epping House, near Hertford, at Gomersal, Yorkshire, the residence of his brother, suddenly, on December 28, 1873, in his 73rd year.

VACANCIES.

In the following list the nature of the office vacant, the qualifications required in the Candidate, the person to whom application should be made, and the day of election (as far as known) are stated in succession.

CITY OF LONDON LUNATIC ASYLUM, STONE, DARTFORD, KENT.—Assistant Medical Officer. Candidates must be duly qualified. Applications, with testimonials, to the Committee of Visitors, under cover to Henry F. Youle, Clerk to the Committee, Guildhall, London, on or before January 15.

COTON-HILL INSTITUTION FOR THE INSANE.—Assistant Medical Officer. Candidates must be duly qualified. Applications, with testimonials, to Dr. Hewson, Coton-hill, Stafford.

DENTAL HOSPITAL OF LONDON, 32, SOHO-SQUARE.—Dental House-Surgeon. Applications, with testimonials, to the Honorary Secretary, on or before January 14.

GENERAL HOSPITAL, NOTTINGHAM.—Physician. Candidates must be duly qualified. Applications, with testimonials, to the Chairman of the Qualification Committee, on or before March 10.

HOSPITAL FOR SICK CHILDREN, PENDLEBURY, MANCHESTER.—Medical Officer. Candidates must be duly qualified and registered. Applications, with testimonials, to the Honorary Secretary, on or before January 15.

KING AND QUEEN'S COLLEGE OF PHYSICIANS, DUBLIN.—King's Professorship of Medicine. Candidates must be duly qualified. Applications, with testimonials, to Dr. G. Magee Finny, Registrar of the College of Physicians, and to the Rev. Dr. Carson, Registrar of Trinity College, Dublin, on or before February 1.

RADCLIFFE INFIRMARY, OXFORD.—House-Surgeon. Candidates must be duly qualified. Applications, with testimonials, to the Secretary, on or before January 10.

ROYAL SURREY COUNTY HOSPITAL, GUILDFORD.—House-Surgeon. Candidates must be duly qualified. Applications, with testimonials, to the Assistant-Secretary, on or before January 12.

ST. MARYLEBONE GENERAL DISPENSARY, 77, WELBECK-STREET, CAVENDISH-SQUARE.—Resident Medical Officer. Candidates must possess both a medical and surgical qualification. Personal applications on Monday, January 19.

SEAMEN'S HOSPITAL, GREENWICH.—House-Physician. Candidates must be M. or L.R.C.P. Lond. or L.S.A. Applications, with testimonials, to Kemball Cook, House-Governor and Secretary, on or before January 17.

TEWKESBURY UNION.—FORTHAMPTON DISTRICT.—Medical Officer. Applications, with testimonials, to George Badham, Clerk to the Guardians, on or before January 20.

WESTMINSTER HOSPITAL.—Assistant-Surgeon. Candidates must be F.R.C.S. Eng. Each candidate must attend (with his testimonials) the House Committee on February 10.

UNION AND PAROCHIAL MEDICAL SERVICE.

*** The area of each district is stated in acres. The population is computed according to the census of 1871.

RESIGNATIONS.

Lincoln Union.—The Third District is vacant; area 11,559; population 2546; salary £25 per annum.

Oundle Union.—Mr. T. C. Bailey has resigned the Weldon District; area 13,448; population 2183; salary £41 10s. per annum.

APPOINTMENTS.

Barnet Union.—Charles E. Little, M.R.C.S. Eng., L.R.C.S. Edin., to the Third District.

Birmingham Borough.—Alfred Hill, M.D., M.R.C.S., L.S.A., as Analyst.

Camberwell Parish.—Thorburn Paterson, L.R.C.P. Edin., L.R.C.S. Edin., to the Workhouse and Infirmary, and Nazareth House Supplemental Workhouse.

Driffield Union.—John D. Eames, L.R.C.P. Lond., M.R.C.S. Eng., to the Wetwang District.

Halstead Union.—John B. Bromley, M.R.C.S. Eng., L.S.A., to the Fifth District.

Ipswich Borough.—John Wiggins, F.C.S., M.P.S., as Analyst.

Liskeard Union.—W. H. Torbock, M.R.C.S. Eng., to the Fourth District.

St. Matthew (Bethnal-green) Parish.—Charles M. Tidy, B.M., F.C.S., as Analyst.

West Ward Union.—Alex. Lindsay, M.B., L.R.C.S. Edin., to the Morland District.

ROYAL COLLEGE OF SURGEONS.—The "primary" examination for the diploma of Membership commences this day, and the "pass" on Friday next.

FEES.—The motion of Mr. Wells, to which we have already drawn attention, came on for discussion at a meeting of the Council of the Royal College of Surgeons on the 8th inst., and was withdrawn.

DR. MASON, one of the Medical Officers of the City of London Union, has resigned.

DR. F. MACNAMARA has been granted a bonus by the Government of India of 5000 rs. for his new invention of the filter recently introduced into the army for regimental use.

MR. HUGH B. WYNTER was on Tuesday, out of a large number of candidates, elected Surgeon to the Surrey House of Correction, Wandsworth.

THE Medical Officers of Health for Wandsworth, in their report recently issued, state that during the past twelve months diseases of the zymotic class have been far less fatal than in previous years.

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THE Holborn Guardians have decided, after a protracted discussion, to provide additional buildings at the City-road Workhouse for the accommodation of the sick and infirm paupers of the union.

ACADÉMIE DE MÉDECINE.—Professor Parkes, of Netley Hospital, and Mr. Howard, the celebrated quinologist, have been elected Corresponding Members of the Académie de Médecine.

As some doubt has existed as to whether the proper parties to receive the penalties inflicted under the Adulteration of Food Act are not the local authorities who prosecute, an application has been made to the Home Secretary on the subject. The Home Secretary considers that by the terms of the Act the penalties should be paid to the receiver of police, and not to the vestries or district boards.

MR. FOX having been appointed Medical Officer of Health for the Workington Port Sanitary District, the question of his salary came on for discussion at the last meeting of the Authority, when, after one or two members had expressed their opinion that he should perform the duties gratuitously, it was moved that the salary should be £20 per annum; an amendment that it should be £40 per annum was then moved and negatived, and the motion for £20 per annum carried, which Mr. Fox declined to accept; and said that he had a small account for services already rendered, of which he would make the Authority a present.

THE annual report of the managers of the Edinburgh Royal Infirmary for the year 1873 was laid before the annual general meeting on January 5. The total number of patients admitted during the year was 4693; and the excess of income over expenditure not less than £18,000. Three pavilions of the new medical house are already roofed, and it is hoped that the rest of the buildings will be speedily erected.

THE report of the Devonshire Hospital, Buxton, for 1873 has just been published. The institution is proved to be in a very flourishing condition, the state of the finances being excellent, and the number of patients continuing large. During the past year 1407 patients were admitted into the Hospital, the great majority of whom have been successfully treated with the baths and waters of Buxton.

FAMILY LONGEVITY.—In our obituary last week was recorded the death of Miss Cunningham, of 86, Great King-street, in her 96th year. The longevity of the members of this family, and of the family of Miss Cunningham's mother, is such that our readers will be glad to learn a few authentic particulars. The late Alexander Cunningham, the father of the deceased lady, married, in 1774, Fordyce Gray, daughter of William Gray, of Newholm, in the county of Lanark. Of this marriage there were eight children (of whom one died in infancy). The remaining seven members died at the following respective ages:—81, 84, 81, 80, 86, 81, and, the survivor of the family has just been taken away, as stated above, in her 96th year. Mr. Cunningham died at 81, and his father at 92. Mrs. Cunningham died at 87. The Grays of Newholm were also a remarkably long-lived family. Of the twenty children of Mr. Wm. Gray, only eleven attained to manhood and womanhood. The first of the survivors who died was aged 70, and the others died respectively at 80, 93, 87, 88, 92, 85, 77, 87, and 87; while the last of the whole family (Miss E. Gray) died in 1856, having reached the great age of 108. The mother of the Gray family was Jean, daughter of John Dickie, of Corstorphine-hill, near Edinburgh, and she died in her 96th year.—*Scotsman*, December 30, 1873.

THE "BULLETIN DE THÉRAPEUTIQUE."—This highly successful journal has again changed hands. Its late proprietor, Dr. Bricheteau, directed in his will that it should be made over either to the French Medical Association or the Paris Faculty of Medicine, but upon condition of an annuity of 10,000 fr. being secured to the widow of the testator and 2000 fr. to his mother—12,000 fr. in all. This does not seem an onerous condition for the possession of a journal which returns very large profits; but the constitution and objects of both these bodies prevented their accepting the offer. The property has accordingly been sold for (it is said) 115,000 fr. to Dr. Dujardin-Beaumetz, who has determined that in his hands it shall, if possible, even exceed its present reputation, and has added to the editorial staff no less than three members of the Faculty—viz., Professors Béhier, Bouchardat, and Dolbeau. It is also stated that M. Gubler, Professor of Therapeutics at the Faculty, is about to bring out a new therapeutical journal.

TYPHOID FEVER prevails in the village of Idle, near Bradford, and several deaths have occurred.

LEIPZIC UNIVERSITY.—It has just been determined to expend the munificent sum of 250,000 thalers for the establishment of a Clinic for Psychiatry in this University.

DEATH OF M. CHARLES LEGROS.—This young *savant* has just been cut off prematurely at the age of 36, having died after an attack of jaundice, upon which supervened symptoms of septicæmic poisoning. Of late he had entirely devoted himself to histological researches, being one of the strongest supporters of Professor Robin, whose assistant he was at the time of his death. His various memoirs are well known to histological inquirers in this country.

THE NEW FACULTY OF MEDICINE AT GENEVA.—The Grand Council of Geneva has just formally sanctioned the creation of this new Faculty in the Academy of Geneva, which is henceforth to be called the University of Geneva. The curriculum is to embrace the entire circle of theoretical and clinical medicine and surgery. Each auditor is to pay 5 fr. per semester for each course of lectures, occupying one hour weekly, which payments are to be made over to the lecturer. In other respects the Medical Faculty will be assimilated with the other faculties. The Conseil d'Etat is charged to make such combinations among the hospitals as will provide the means for efficient clinical teaching. The Conseil d'Etat is also to be allowed all necessary latitude for nominating the first holders of the various chairs in the new Faculty.

NOTES, QUERIES, AND REPLIES.

He that questioneth much shall learn much.—Bacon.

*** We have received a note from Mr. Le Gros Clark with reference to the separation of Guy's and St. Thomas's Hospitals. It shall receive due attention next week.

Dr. Montizambert, Quebec.—Letter with enclosure received.

Surgeon T. P. Patterson, Roorkee, India.—Letter with enclosure received.

Summerseat.—The date of the last edition of Carpenter's "Animal Physiology" is 1859. It is published by Messrs. G. Bell and Sons, York-street, Covent-garden, price 6s.

Gilbert S.—The permanent Epidemic Hospital at Aberdeen about to be erected is to accommodate 100 patients.

A. B. C.—Dr. Paget and Dr. Bradbury have been appointed by the authorities of Caius College, Cambridge, to conduct an inquiry into the cause of the recent outbreak of typhoid fever there.

M. M. S.—The attendance of students in the new class on the "Science of Health," established in the Birmingham and Midland Institute, and presided over by Dr. W. H. Corfield, averages from 380 to 390 at each lecture.

J. R., London Hospital.—Mr. John Adams, of your Hospital, succeeded the late Mr. Wormald as a Member of the Court of Examiners of the College of Surgeons.

H. M.—The first number of the *Medical Times* appeared on Saturday, September 26, 1839. You will find a complete set in the library of the College of Surgeons.

M.D., Pimlico.—We believe there was another meeting on Monday last in Pall-mall. Truly it drags its weary length along! We are quite unable to answer your inquiry.

THE LATE DR. F. C. WEBB.

TO THE EDITOR OF THE MEDICAL TIMES AND GAZETTE.

SIR,—The obituary of Dr. F. C. Webb, F.R.C.S., your late editor-in-chief, reveals so many excellencies of professional eminence and general attainments and character, that the reader of this obituary, while it excites a common feeling of regret at the unexpected loss of so esteemed a member of our profession, cannot but recognise with respect the very able and honourable tribute to the memory of a valued coadjutor. As a subscriber of long standing to your periodical, and belonging to the ranks of the profession, I may justly congratulate myself and others that we possess such a talented and estimable set of leaders. The paragraph quoted from a lecture of the late Dr. is a *multum in parvo* of sage and invaluable advice to those commencing our profession. In my own observation and long experience, honours and emoluments—if made, as in other pursuits, the principal attractions to be led by—must be to the many or any of us a delusion. Our humanity—indeed, our Christianity, if we have it—must be our chief reward; and for that I would advise every young man setting up, to put aside pride and vanity and expense, unless his means are good, and devote himself to his profession. And if he be agreeable, intelligent, and sociable, let me tell him he must not allow mere social life and indulgence, however flattering, to occupy too much of his time. This remark applies equally to student life, speaking of past times. Young men of social habits and easy circumstances are prone to the non-working side. Much of a defaulter myself in both respects, I can with the more truth say "*Cave!*"

I am, &c., AN OLD PRACTITIONER.

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Junius.—From inquiries made at the College of Surgeons, we learn that the report from the College of Preceptors on the Christmas Arts examination has only just been received. The result will be sent to the candidates immediately. Your professional studies, if successful, will date from Christmas.

A Competitor.—The Essays for the Jacksonian Prize for the past year were directed to be sent in before Christmas-day last. We believe there were only two. The subject was "Ununited Fractures." For the present year the subject is on "Tracheotomy, with particular reference to the Causes of Death after the operation, and the rules for rendering the operation more generally successful." The Collegial Triennial Essays must be sent in before Christmas-day, 1875.

Corrigendum.—We find that at page 380 of Dr. Roberts's book on Medicine there is a reference to retro-pharyngeal abscess, and gladly make the necessary correction.

COMMUNICATIONS have been received from—

Mr. F. A. Mahomed, Brighton; Mr. J. Erichsen, London; Dr. Dowse, Highgate; An Old Practitioner; Mr. Benjamin Vincent, London; Dr. Craven, Southport; Dr. Sansom, London; Dr. Milroy, Richmond; Dr. Bathurst Woodman, London; Mr. Eastes, London; Dr. Peyton Blakiston, London; Mr. Francis Mason, London; Dr. W. H. Pearse, Plymouth; Dr. Shaw, Herts; Dr. Sparks, London; Mr. J. Chatto, London.

BOOKS RECEIVED—

How to Preserve Health on the Gold Coast, by Henry Mac Cormac, M.D.—The Climate of Arcachon, by Dr. G. Hameau, translated by the Rev. S. Radcliff, A.B.—Victoria Patents and Patentees, vol. 6—Braithwaite's Retrospect of Medicine, vol. lxviii.—Byrne on the Electro-Cautery in Uterine Surgery—Stricker's Medizinische Jahrbücher.

PERIODICALS AND NEWSPAPERS RECEIVED—

Lancet—British Medical Journal—Ipswich (Queensland) Observer—Public Health—Students' Journal and Hospital Gazette—La Tribune Médicale—Gazette Médicale—La France Médicale—Archives Générales de Médecine—Gazette Hebdomadaire—Le Progrès Médical—Irish Hospital Gazette—Le Mouvement Médical—Allgemeine Wiener Medizinische Zeitung—London Medical Record—The Pocket Edition of the Gleaner—Pharmaceutical Journal—Revista Medico-Quirúrgica—Nature—The Scotsman—Sheffield Daily Telegraph—Food, Water, and Air—Gazette des Hôpitaux—Medical Press and Circular—Philadelphia Medical Times.

APPOINTMENTS FOR THE WEEK.

January 10. *Saturday (this day).*

Operations at St. Bartholomew's, 1½ p.m.; King's College, 2 p.m.; Charing-cross, 2 p.m.; Royal Free, 9 a.m. and 2 p.m.; Hospital for Women, 9½ a.m.; Royal London Ophthalmic, 11 a.m.; Royal Westminster Ophthalmic, 1½ p.m.; St. Thomas's, 9½ a.m.

12. *Monday.*

Operations at the Metropolitan Free, 2 p.m.; St. Mark's Hospital for Diseases of the Rectum, 2 p.m.; St. Peter's Hospital for Stone, 3 p.m.; Royal London Ophthalmic, 11 a.m.; Royal Westminster Ophthalmic, 1½ p.m.

Medical Society of London, 8.30 p.m. Mr. Gant, "Excision of Antrum of Upper Jaw for Cure of Cystic Growth." Dr. Lichtenberg will bring forward a Patient on whom the Rhinoplastic Operation has been Performed. And other communications.

13. *Tuesday.*

Operations at Guy's, 1½ p.m.; Westminster, 2 p.m.; National Orthopædic, Great Portland-street, 2 p.m.; Royal London Ophthalmic, 11 a.m.; Royal Westminster Ophthalmic, 1½ p.m.; West London, 3 p.m.

Anthropological Institute, 8 p.m. Meeting.

Royal Medical and Chirurgical Society, 8½ p.m. Mr. Walter Rivington, "On Dislocation of the First and Second Pieces of the Sternum." Mr. Le Gros Clark, "Large Adenocele complicated with Milk Cyst."

Royal Institution, 3 p.m. Prof. Rutherford, "On Respiration."

14. *Wednesday.*

Operations at University College, 2 p.m.; St. Mary's, 1½ p.m.; Middlesex, 1 p.m.; London, 2 p.m.; St. Bartholomew's, 1½ p.m.; Great Northern, 2 p.m.; St. Thomas's, 1½ p.m.; Samaritan, 2½ p.m.; King's College (by Mr. Wood), 2 p.m.; Royal London Ophthalmic, 11 a.m.; Royal Westminster Ophthalmic, 1½ p.m.

15. *Thursday.*

Operations at St. George's, 1 p.m.; Central London Ophthalmic, 1 p.m.; Royal Orthopædic, 2 p.m.; University College, 2 p.m.; Royal London Ophthalmic, 11 a.m.; Royal Westminster Ophthalmic, 1½ p.m.

Harveian Society, 8 p.m. Mr. Lennox Browne, "On the various Causes and Treatment of Loss of Voice."

Royal Institution, 3 p.m. Prof. P. M. Duncan, "On Palæontology, with reference to Extinct Animals, and the Physical Geography of their time."

16. *Friday.*

Operations at Central London Ophthalmic, 2 p.m.; Royal London Ophthalmic, 11 a.m.; South London Ophthalmic, 2 p.m.; Royal Westminster Ophthalmic, 1½ p.m.; St. George's (ophthalmic operations), 1½ p.m.

Medical Microscopical Society, 8 p.m. Anniversary Meeting.

Royal Institution (Weekly Evening Meeting, 8 p.m.), 9 p.m. Prof. Tyndall, "The Acoustic Transparency and Opacity of the Atmosphere."

VITAL STATISTICS OF LONDON.

Week ending Saturday, January 3.

BIRTHS.

Births of Boys, 1300; Girls, 1292; Total, 2592.
Average of 10 corresponding years 1864-73, 1866·9.

DEATHS.

	Males.	Females.	Total.
Deaths during the week	902	940	1842
Average of the ten years 1864-73	773·1	768·6	1541·7
Average corrected to increased population	...	...	1696
Deaths of people aged 80 and upwards	...	...	71

DEATHS IN SUB-DISTRICTS FROM EPIDEMICS.

	Population, 1871.	Small-pox.	Measles.	Scarlet Fever.	Diphtheria.	Whooping-cough.	Typhus.	Enteric (or Typhoid) Fever.	Simple continued Fever.	Diarrhœa.
West	561359	...	11	1	...	7	...	4	1	2
North... ...	751729	3	39	1	...	16	...	4	...	1
Central ...	334369	...	10	3	...	12	2	1	...	...
East	639111	...	26	7	...	17	...	5	3	6
South	967692	1	22	6	2	17	1	8	2	3
Total	3254260	4	108	18	2	69	3	22	6	12

METEOROLOGY.

From Observations at the Greenwich Observatory.

Mean height of barometer	29·712 in.
Mean temperature	39·0°
Highest point of thermometer	50·7°
Lowest point of thermometer	22·1°
Mean dew-point temperature	36·1°
General direction of wind	S.W.
Whole amount of rain in the week	0·33 in.

BIRTHS and DEATHS Registered and METEOROLOGY during the Week ending Saturday, January 3, 1874, in the following large Towns:—

Boroughs, etc. (Municipal boundaries for all except London.)	Estimated Population to middle of the year 1873.*	Persons to an Acre. (1873.)	Births Registered during the week ending Jan. 3.	Deaths Registered during the week ending Jan. 3.	Temperature of Air (Fahr.) Highest during the Week.	Lowest during the Week.	Weekly Mean of Mean Daily Values.	Temp. of Air (Cent.) Weekly Mean of Mean Daily Values.	Rain Fall. In Inches.	In Centimetres.
London	3356073	43·0	2592	1842	50·7	22·1	39·0	3·89	0·33	0·84
Portsmouth ...	118280	12·4	79	65	55·6	24·0	41·6	5·33	0·51	1·30
Norwich	81677	10·9	69	40	50·2	22·0	37·1	2·84	0·16	0·41
Bristol	189648	40·4	136	84	48·9	28·9	39·7	4·28	0·53	1·35
Wolverhampton ...	70084	20·7	56	32	50·0	25·7	38·1	3·39	0·44	1·12
Birmingham ...	355540	45·4	276	230	50·3	24·2	39·1	3·95	0·30	0·76
Leicester	102694	32·0	126	44	49·0	23·7	37·5	3·06	0·27	0·69
Nottingham ...	89557	44·9	+66	+36	49·6	23·2	37·0	2·78	0·09	0·23
Liverpool	505274	98·9	405	259	51·9	27·9	39·6	4·22	0·75	1·90
Manchester ...	354057	78·9	259	206	49·7	27·0	38·5	3·61	0·93	2·36
Salford	130468	25·2	97	76	49·7	25·3	39·0	3·89	1·06	2·69
Oldham	85141	20·4	63	59	48·0	...	...	...	1·50	3·81
Bradford	156609	23·8	87	83	55·4	28·0	40·8	4·88	0·80	2·03
Leeds	272619	12·6	351	179	50·0	25·0	39·0	3·89	0·40	1·02
Sheffield	254352	11·1	226	112	49·0	25·9	39·2	4·00	0·32	0·81
Hull	128125	35·9	116	64	48·0	25·0	37·2	2·89	0·47	1·19
Sunderland ...	102450	31·0	122	43	...	...	...	...	...	...
Newcastle-on-Tyne	133246	24·9	147	85	...	...	...	...	...	...
Edinburgh	208553	47·1	122	100	...	...	...	...	...	...
Glasgow	498462	98·5	381	292	50·6	28·3	39·7	4·28	1·09	2·77
Dublin	314666	31·3	146	149	48·0	29·0	38·6	3·66	0·99	2·51
Total of 21 Towns in United Kingd'm	7507575	34·5	5922	4080	55·6	22·0	38·9	3·83	0·61	1·55

At the Royal Observatory, Greenwich, the mean reading of the barometer last week was 29·71 in. The highest was 30·04 in. on Sunday evening, the 28th ult., and the lowest 29·07 in. on Saturday morning.

* The figures in this column for the English towns are the numbers enumerated in April, 1871, as finally revised at the Census Office, and raised to the middle of 1873 by the addition of two years and a quarter's increase, calculated on the rate which prevailed between 1861 and 1871. The population of Dublin is taken as stationary at the revised number enumerated in April, 1871.

\+ The figures for Nottingham include averages for two registration sub-districts, from which the usual returns have not come to hand.

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ORIGINAL LECTURES.

CLINICAL LECTURES

DELIVERED IN UNIVERSITY COLLEGE HOSPITAL.

By CHRISTOPHER HEATH, F.R.C.S.,
Surgeon to the Hospital, and Teacher of Operative Surgery in University College.

ON A CASE OF EXCISION OF THE KNEE.

GENTLEMEN,—The operation of excision of the knee is one which you have occasionally witnessed in this hospital, but which is certainly not done so frequently at the present time as it was some years ago. I am old enough to remember the introduction or rather revival of the proceeding by Sir William Fergusson, and I can recall the ardour with which the operation was taken up by many hospital surgeons, who submitted to it cases which now perhaps they would either amputate or let alone. Be this as it may, however, the fact remains that the operation has not been done here very frequently of late; and as I have had recently a very satisfactory case, which has some points of peculiar interest, I propose to take it for my text to-day.

A boy, aged 11, was sent up to me from Gosport on December 31, 1872, with the following history, which has been carefully recorded by the ward clerk, Mr. Dyson:—Three years before, he had a blow on the left knee, and soon after he had an attack of low fever, during the convalescence from which the knee began to swell. He went to the Portsmouth Hospital, where he was most judiciously treated with a leather splint, and discharged relieved; but he seems to have taken the splint off and nursed the limb on a chair for three months. Subsequently he was in a London hospital, where the limb was again straightened, and he was discharged with a leather splint. Up to this time, therefore, we may conclude that the boy was suffering from the chronic swelling and thickening of the joint which is so common in strumous children. In May, 1872, however, the disease became more acute, and abscesses formed in and around the joint. Then again, as too often happens, the splint was removed, and the limb gradually assumed the semi-flexed position in which it was when the boy was admitted. The abscesses appear to have opened above the joint on either side, where the cicatrices are still visible; but in July an abscess formed below the joint to the inner side of the tubercle of the tibia, which was discharging when the boy was admitted. The knee was not merely semi-flexed; it was distorted, and the distortion was highly characteristic of the pathological changes which had taken place in it. Let me remind you for a moment of the anatomy of the knee-joint, and particularly of the ligaments by which the femur and tibia are held together. If you take a perfectly healthy joint, you will find that flexion and extension are the only movements of which it is capable, and that the rotation of the limb, often attributed to the knee, is really due to movement of the hip. It is the lateral ligaments which hold the articular surfaces in apposition, for, if these are divided, the bones can be separated for some little distance when the joint is extended. The crucial ligaments serve to check flexion and extension alternately, and, as I pointed out several years ago, they also counteract the rotatory tendency of that powerful muscle, the popliteus, which is a great flexor of the knee-joint. Supposing, however, the crucial ligaments to have been destroyed, and the lateral ligaments either weakened or placed at a disadvantage by the flexed position of the limb, there is nothing to counteract the popliteus in its rotation of the tibia inwards, and consequently a highly characteristic deformity is produced. This is what invariably happens in chronic disease of the knee-joint; but, in addition, we had in our boy a partial dislocation of the tibia backwards into the popliteal space, the result of the action of the hamstrings after flexion and rotation inwards had occurred. The patella was fixed on the outer condyle, as it always is in cases of flexed knee-joint; the limb was wasted, simply from want of exercise of the muscles; and there was, as I have mentioned, an open sinus over the head of the tibia.

The boy's general health was good, and his family history satisfactory as regarded phthisis. He had the dilated pupils and long eyelashes so commonly met with in strumous children; but his lungs were sound, and he had no glandular enlargements. Under these circumstances it became a question for consideration whether the limb should be straightened, whether excision should be performed, or the limb amputated. Now, to straighten a knee-joint in which dislocation of the head of the tibia has already occurred is by no means a satisfactory proceeding, whether it be done slowly or rapidly. The hamstrings, which are so tense, are by no means the only structures which are contracted, though they are the only ones which can be conveniently divided. Slow extension by means of mechanical contrivances, however ingenious, I believe to be useless; and rapid extension under chloroform, though successful in breaking down adhesions and restoring the limb to a better position, does not reduce the dislocation, and has considerable inherent dangers of its own, particularly in young patients, in whom the epiphysis of the femur has been wrenched off before now with disastrous results. Excision would restore the limb to use for purposes of progression, although it would necessarily be shortened both by the operation and by the possible interference with the epiphysis of the femur and tibia, and their consequent arrest of growth. Against this operation was the fact that the sinus existed, apparently indicating disease in the tibia—although none could be felt,—and so low down that if included in the excision the whole of the epiphysis must be removed. The operation, also, was not without its inevitable risks to life, but not more so than amputation, which remained as the *dernier ressort* should the disease in the tibia prove extensive. Accordingly, I determined to attempt excision, and if the disease in the tibia proved extensive, to resort to amputation.

On January 8, 1873, having first ascertained that the sinus over the head of the tibia did not lead to any dead bone, I proceeded to operate, making a single incision below the patella, and dissecting up the soft tissues off that bone. The interior of the joint was completely disorganised, and the crucial ligaments were gone. Having exposed the condyles of the femur, I removed them with the adherent patella, and then took a very thin slice from the head of the tibia; and now occurred the difficulty for which I was prepared—viz., the impossibility of reducing the limb to a straight position. As I have said, it is not merely the hamstring muscles which are contracted in these cases, but all the fibrous structures at the back of the joint are thickened and contracted. These I endeavoured to stretch by using some force to the limb, taking great care, however, not to crush the two cut surfaces of bone together. Something was gained in this way, but not enough, and, rather than use the knife freely in close and uncertain proximity to the popliteal vessels, I thought it better to remove a second, and even a third thin slice of bone from the femur, and was then able to bring the femur and tibia into perfect apposition with the limb straight. Two small vessels were then twisted, the wound was washed out with a solution of chloride of zinc (gr. xx. ad ℥j.), and the limb was carefully fixed with strips of plaster to an iron back-splint, and bandaged to it, the foot and leg being thoroughly protected from pressure with cotton-wool. When I had ascertained that the bones were firmly fixed and in good apposition, the centre of the incision was closed with wire sutures, but the sides were left open for drainage, and the wound was covered with picked oakum and lightly bandaged.

Putting aside difficulties which may arise from previous contraction of the joint, the operation of excision is not a difficult one, but there are one or two points which require careful attention. In the first place, the cut surfaces of bone must fit accurately; and in order to secure this the operator must be careful how he saws the bones. Whether the knee is semi-flexed or not by previous disease, it is necessary to flex it when exposing the articulation, and the operator is too apt to forget the fact that the femur is raised, and to put his saw on perpendicularly to the patient's body or the operating table, instead of perpendicularly to the shaft of the femur. Again, you will remember that the inner condyle of the femur is longer than the outer, in order to compensate for the obliquity of the neck of the femur; but if this is forgotten, and, with the view of improving upon nature, more of the inner condyle than the outer is removed, the legs cannot be straight afterwards if the bones are in apposition, or, on the other hand, if the limb is put straight there must be a gap between the bones. The formula I am in the habit of giving when teaching the operation on the dead body, is—keep the saw parallel to the surfaces of the condyles, and at right angles to the shaft of the femur; and this brings the limb perfectly straight afterwards. The tibia should be cut parallel to its articular surface, and as thin a slice as possible should be removed, both because of the thinness of the epiphysis in young subjects, and because a

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thick slice, even in the adult, might open the medullary canal of the bone and even interfere with the fibula, as I have seen occur in the living body. For these reasons, also, and because of the greater thickness of the femoral epiphysis, it is better, if it is necessary to remove more bone, as in this case, to sacrifice the femur rather than the tibia. The saw I employed was, as you would have seen, of the ordinary kind, only somewhat deeper than usual. In a child, any amputating saw would do, but in the adult it would be very annoying if the saw were not deep enough to make the sections without breaking the edges of the bones. I very much prefer the ordinary saw to the thin-bladed bow-saw, recommended by Professor Butcher, for the line of section is more easily maintained with the broad blade; and in less powerful hands than Mr. Butcher's I have known a series of undulations produced in the bone by the small blade.

I was in hopes that I had left untouched the cartilage of the epiphysis of the femur—*i.e.*, the tissue between the epiphysis and the shaft, upon which the growth of the bone depends,—but a careful examination of the sections of bone by Mr. Godlee showed that the last section had cut into it; and this is to be regretted. The bony sections corresponding to those left to come together were healthy, though a little fatty, as might have been anticipated, but there was no cheesy matter in the cancelli. The joint had undergone destruction, no trace of the crucial ligaments or of one of the semilunar cartilages being found, but the mischief had been repaired as far as was possible with fibrous adhesions between the bones, which were in part denuded of their articular cartilages.

An excision of the knee in which our object is to procure firm anchylosis should be treated on the same principles as a compound fracture, where we have, of course, the same object in view. No one would think of pulling a compound fracture off its splint every day, or of changing the dressings too frequently; and I followed the same rule here. The operation was done on January 8, and the dressings were not meddled with until the 13th, when, although the clinical clerk has recorded that they "smelt offensively," the boy's pulse was only 108 and his temperature 100·8°, having come down from 140 and 102° respectively, at which they were the day after the operation. When we uncovered the knee, the greater part of the incision had already healed, except at the angles (which had purposely been left open), and there was no pocketing of discharge. The wound was dressed again with the oakum (which soaked up all the slight discharge there was) on February 15 and 18, and on the 19th it was noted that the pulse was 88 and the temperature 98·8°. On February 20, however, he began to complain of great pain in the knee, so that Mr. Colgate, the house-surgeon, found it necessary to give him morphia on three occasions and to foment the knee. When I saw him on the 21st, he was still suffering, and the knee was somewhat swollen and excessively tender. I put him under chloroform for the purpose of examining the limb carefully, and then, finding some fluctuation above the joint, I passed a director through the open outer angle of the wound, and, carrying it above the joint, gave exit to some three drachms of bloody fluid which had got pent up there by the rapid healing of the wound, and had caused all the trouble. This little operation had to be repeated on the inner side two days later by the house-surgeon, and after that we had no more trouble.

This liability to the collection of fluid above the joint is due to the extent of the synovial pouch, and is seen after amputation through the knee as well as after excision. It is surprising how much constitutional disturbance a very small quantity of fluid thus shut in will give rise to, and I would warn you against making unnecessarily free incisions for its exit when a little manœuvring with a director through an existing wound will do all that is wanted. Mr. Syme long ago called attention to the disadvantage of plastering up a wound so as to hermetically seal it when there was no prospect of its healing by first intention; and the great improvement in the modern treatment of wounds is, I believe, due rather to efficient drainage than to any specific application.

After this date the patient made a rapid convalescence, the wounds contracting and being dressed with red-wash, and the boy becoming fat with good diet and the compound syrup of the phosphates. The limb was on one occasion carefully lifted from the splint, which was cleaned and reapplied; and on February 28 the limb was put in a plaster-of-Paris bandage, with a slight wooden back-splint, and on the 21st (two days over six weeks from the date of the operation) he was sent to the Eastbourne Convalescent Institution, with the limb perfectly straight and firmly united, and the incisions merely small superficial sores.

The union of the bones in this case went through a very trying and unusual ordeal, for on March 22 the patient returned to my care from Eastbourne with well-marked sloughing phagedæna or hospital gangrene in the unhealed wounds. The sores had considerably increased in size, and presented the grey sodden slough so characteristic of the disorder. Another patient returned to us at the same time in a similar condition, and there could be no doubt that the disease had spread to them both from the unhealthy sores of another patient sent to the same institution from another London hospital. I was not sure at first whether the disease was spreading or not, and whether the change of air would check it alone; but finding after a couple of days that the sores were decidedly larger, I had no hesitation in directing the house-surgeon, Mr. Skerritt, to put the boy under chloroform, and thoroughly apply the strongest nitric acid to the whole of the affected surfaces. To do this effectually, it is not sufficient to apply the caustic to the sloughy surface; the slough must be scraped away as much as possible, and then the surface must be thoroughly dried before the strongest fuming acid is applied with a piece of stick, both to the raw surface in its whole extent and to the skin for an eighth of an inch around. In this case especial care was necessary, because a sinus was discovered leading apparently between the femur and tibia, which, if not completely wiped out, would doubtless have proved a starting-point for fresh disease. After the application of the acid, a charcoal poultice was applied, and the boy had full diet, with stout, and took quinine and iron. The single application of the acid was effectual over the greater part of the sores, but on March 31 it was necessary to apply the acid again on the inner side of the joint, where the disease was perceptibly spreading at one point. Three days after it was evident that the sloughing action was arrested, and that the sloughs were separating healthily, and from this time the boy made a rapid recovery.

Fortunately, the union between the femur and tibia was strong enough to resist the damaging influence of the hospital gangrene, and the bones remained firmly united. A leather splint was moulded to the limb to support it, and the boy finally went home, with the sores all but healed, on May 6, having been forty-five days in hospital on the second and fifty-three on the first occasion.

The case serves to illustrate, in the first place, a mode of treatment of an anchylosed and diseased joint; and secondly, the treatment of hospital gangrene—a disease from which, I am happy to say, our wards have been exempt for years. I must confess that when the patient returned with the disease upon him I feared that he would lose his limb, but, by vigorous and careful treatment, he has been discharged with what will no doubt prove a very serviceable member.

SCARLATINA is very prevalent in some parts of Halifax. Several deaths have occurred from the disease.

THE REV. H. C. ATTWOOD, M.D., who has been acting as curate in charge of the temporary church of All Souls, Harlesden, is to be the first incumbent of a new district parish which is being formed at Willesden.

THE NEW STRASBURG UNIVERSITY. — Dr. Cutler, writing in the *Boston Medical and Surgical Journal*, December 4, urges upon his countrymen the importance of the Medical Faculty of Strasburg as a place of study, having professors of the highest eminence, ample and well-furnished laboratories, moderate charges, and abundant material for clinical instruction, the only drawback being insufficient instruction in children's diseases. Two of Professor Virchow's sons have been students at the Medical Faculty from the beginning.

DEATH OF M. FERNAND PAPILLON.—Another of the rising French *savants* has just been cut off by peritonitis at the early age of 26. M. Papillon is supposed to have contracted his malady while attending the funeral of his intimate friend, M. Charles Legros. The happy facility which Papillon possessed of making the most abstruse doctrines in science readily intelligible, must be known to a large circle of readers through the pages of the *Revue des Deux Mondes*; and he has also done, for his early age, much good original work in the department of biological chemistry, and was accumulating the materials for an important work on this subject.

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ORIGINAL COMMUNICATIONS.

NATURE AND TREATMENT OF ASTHMA.(a)

By JOHN C. THOROWGOOD, M.D. Lond.,
Physician to Victoria-park Hospital for Diseases of the Chest, and to the West London Hospital;
Lecturer on Materia Medica at Middlesex Hospital.

THE phenomena attendant on a fit of true spasmodic asthma have been explained in more ways than one, and there are plenty of theories of asthma abroad. I will not occupy the time of this Society in a discussion of these theories; those who have a curiosity in the matter can have it amply gratified by perusing the first chapter of the second edition of the late Dr. Hyde Salter's well-known work on Asthma. Allow me briefly to remind the Society of a few points in connexion with the actual paroxysm of asthma.

First, the sudden invasion of the fit. A person is in perfect health, breathing equally and freely, when suddenly he is surprised by some unusual mental excitement, or he passes from one atmosphere into another, and is at once seized with tightness at the chest and all the symptoms of the asthmatic fit. Thus, for example, a gentleman riding after the hounds passes from one field into another, and becomes at once distressed in his respiration. In another case, known to Dr. Birkett, one man coming into London from the south becomes asthmatical on reaching Camberwell-green; while another, leaving town by the same route, breathes freely till he has got as far out as Camberwell-green, and there he too becomes asthmatical.

Secondly, it may be noted how surely certain emanations at once excite severe asthma in susceptible individuals. One person is made asthmatic by the smell of ipecacuanha powder, another by the dust of powdered linseed. Those who have read Trousseau's "Clinical Medicine" will recollect the alarming attack the Professor experienced while watching his coachman measuring the dusty oats in the hayloft. Dr. Blackley's recent observations on the way in which dry pollen will cause sudden asthma seem to me fully to explain Trousseau's case. It could not have been merely the dust, for the Professor said he had often been exposed to quite as much dust in the streets of Paris, and yet had no asthma.

The paroxysm of asthma, when once excited, grows on the patient till he stands up, leaning forward with raised shoulders and outstretched arms, the thorax being powerfully drawn upwards so that the clothes are almost burst open by the tension. By degrees the face becomes livid and covered with sweat. The respirations sometimes are slow, but more often hurried, and I have counted them as many as fifty or sixty in the minute. I counted fifty in the minute in the case of a man, aged 27, who came to Victoria-park Hospital in November, 1872, breathing freely and easily, but who was liable to asthma. Wishing to examine his chest, I bade him take off his clothes. He said he feared doing so would bring on a fit; but he did it, nevertheless, and proved himself a true prophet, for he had an intense fit of asthma. He sat down, leant his arms on the table, sweat poured off him, and his respirations were fifty per minute. Respiratory movement seemed carried on by the lowest false ribs; abdomen and xiphoid cartilage drawn in. Thoracic resonance imperfect, with sonoro-sibilant râles all over the chest.

Not only was this patient's breathing arrested, but his unhappy condition arrested for the time my out-patient work at the hospital. He could not swallow, and I gave him five minims of nitrite of amyl as an inhalation on lint. This soon relieved him, and he was able to drink an antispasmodic draught and return home to Poplar. Observe the statement made by this man when he next came to Victoria-park Hospital. His first acquaintance with asthma was made five years previously, and his first fit came on after an immoderate fit of laughter.

Laughter, like cough, is a violent *expiratory* effort. After the expiration, his lungs were caught in a cramp or spasm, and remained contracted; he could not re-inflate them—hence the asthma. The fact of the contractility of the bronchial muscle surrounding the smaller air-tubes and bronchioles was proved many years ago by Dr. Williams. Recent experiments by Paul Bert, Traube, and Bernard have confirmed the observations of Williams; and it is stated in the "Biennial Retrospect of the Sydenham Society" (1869-70, p. 26), as well as in the *British and Foreign Medico-Chirurgical Review* (July to October, 1870), that Bert says arrest of respiration is more readily obtained during expiration than during inspiration. Bert has also convinced himself that the lungs contract under the influence of the vagi. Asthma is arrest of respiration; and it appears that this arrest is most readily induced in a susceptible person after a powerful expiratory effort, as by a fit of coughing or laughing. Then, doubtless, the lungs are spasmodically contracted, more or less devoid of air, and the effort of the patient is to re-inflate them and get air into his chest again.

The theory of bronchial stricture as the cause of asthma was the one held by the late Dr. Salter up to the time of his decease. In his excellent work, at page 30 of second edition, Salter says—"The phenomena of asthma, the distressing sensation, and the demand for extraordinary respiratory efforts, immediately depend upon a spastic contraction of the fibre-cells of organic muscle, which minute anatomy has demonstrated to exist in the bronchial tubes." Again, at page 35 Salter says—"The wheezing of asthma, then, is as positive evidence of bronchial contraction as if we could see the points of stricture—it is physical demonstration."

Nothing can be more definite and decided than the above statements. From what I have observed of asthma, and from inquiries I have made of intelligent medical men, and others who have been under my observation with this complaint, I believe the above statements to be true, but they are not the whole truth, and do not explain all cases of asthma. Briefly, I believe this—asthma is a spasm: this may be an expiratory spasm with closed or contracted lungs, or it may be an inspiratory spasm with lungs over-distended with air.

To assume a contracted state of lung, with air forced out, as the constant condition in all cases of asthma, I maintain to be an error. Clinical evidence and physiological experiment tend to prove it an error. First, as to clinical evidence. The condition of the diaphragm varies in cases of asthma; it may be higher or lower, according to the amount of air in the lung. The heart is sometimes forced down during the asthmatic paroxysm towards the xiphoid cartilage. Patients also have told me that their sensations are as if the lungs were full of air and they cannot move this air. These are a few points of clinical observation. Now, if we turn to physiology, we find it stated in the *Jahresbericht of Medicine*, 1869, p. 125, that arrest of respiration can occur in expiration or in inspiration, the first condition being the one most easily induced. Further, the writer says the arrest takes place in the act (inspiratory or expiratory) which happens to be going on at the instant the irritation of nerve is applied—the lung being, as I take it, seized and fixed by spasm and immobility of the bronchial muscles. Experiment seems to show, further, that a more powerful excitation is required to produce the arrest in inspiration than in expiration, and there are some animals (Paul Bert says) in which it is impossible to obtain arrest in inspiration.

The view that I am led to take of spasmodic asthma is to consider it as spasmodic arrest of respiration. The spasm may occur during or at the close of inspiration—inspiratory spasm; or it may, and most commonly does, occur during or at the close of expiration. The part affected by spasm is the bronchial muscle which surrounds the smaller bronchial tubes.

To consider now the effects of asthma on the lungs. Asthma tends to weaken the nutrition of the mucous membrane and bronchial muscle. Pousseuille has shown how inflation of air-cells to excess tends to prevent free circulation in the capillaries; hence nutrition fails. The vulnerability of the lung and air-tubes is increased. The patient therefore becomes liable to bronchitis, and the lungs gradually become more and more emphysematous. Then it is that spasm is replaced in a measure by paralysis, and you get those cases of asthma and emphysema so common in elderly people, where the lung is emphysematous. Its innervation and nutrition alike impaired, it is in a constant state of over-distension with air, and the difficulty with the patients, as they have often told me, is to get the air out of the chest. One patient, a clergyman, who had been asthmatical for thirty years, told me the operation of percussing his thorax gave him much relief by dislodging the stagnant air from his lungs.

The treatment of these old cases of asthma is a point to which I am anxious to draw attention. Usually, from what I have seen, I should say that expectorants are too much trusted to, and therefore too freely and for too long a time administered, in these cases. The inflammatory element rather than the nervous element in the case is too exclusively regarded.

I could here give the notes of a goodly number of cases of asthma in old persons that have come under my notice at

(a) Read before the West Kent Medico-Chirurgical Society, Dec. 5, 1873.

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Victoria-park Hospital and elsewhere, in which most marked relief has been obtained by such remedies as nux vomica, strychnine, quinine, iron. Very prolonged expiration, coldness of the surface, inability to lie down at night, and gastric flatulence are prominent indications for the two first-named remedies.

There is commonly much secretion from the air-tubes in these cases, though there is much difficulty in expelling it by coughing. I doubt whether inflammatory action has so much to do with this excessive secretion as a relaxed, badly nourished state of mucous membrane and bronchial muscle. The bronchial muscle, even when much worn and weakened by persistent emphysema and senile degeneration, nevertheless still retains enough vitality to be liable to spasm.

Inspiratory spasm I believe to be the form most common in these cases. The over-distended lung is seized with spasm, and so movement is arrested, the chest being over-full of air. In connexion with this form of dyspnœa, the experiments of Bert (quoted by Dr. Berkart in his paper read before the Medical Society of London, November 3, 1873) have much interest; for Bert found that excessive insufflation of the lung impeded bronchial contraction, and so would doubtless cause great respiratory distress.

I have not time to say much on the matter of treatment, but will content myself with merely alluding to a few points, in connexion with this part of the subject. With respect to the use of nitre-paper—so much, and deservedly, celebrated as a remedy for asthma,—I would insist on the necessity for using this remedy freely. To relieve the dyspnœa of spasmodic asthma it is often necessary to burn the paper till the room is so full of the fumes that healthy persons can hardly remain in it.

This fume-bath plan of treatment gave signal relief in the case of a gentleman whom I once saw for Dr. Salter. When I saw the patient he was in comparative comfort; but his doctor (Mr. Hoare, of Dartford) told me it was not till they had well-filled the room with the fumes of burning nitre-paper that relief was obtained. Want of attention to this point, I believe, is a reason why some observers declare that they fail to do their patients much good with nitre-paper.

Before a society of practical men it is not needful for me to do more than mention datura tatula and datura stramonium as remedies with the value of which we are well acquainted. Belladonna appears to me inferior to stramonium as a remedy for asthma; it is, moreover, uncertain in its action. We must remember that belladonna is a drug that causes contraction of the unstriped muscular fibres. It causes contraction of the muscular fibre of the arteries (M. Sée); it also quickens respiration, acting in the reverse way to opium, which diminishes the frequency of breathing. To be of service in asthma it requires to be given rather freely. Atropine used hypodermically has proved very efficacious in relieving asthma.

Arsenic in various forms is a remedy I have been in the habit of employing for a good ten years in the treatment of asthma. It is alike good in dry and humid asthma, and if the asthma be in any way connected with old chronic skin disease, then arsenic may be prescribed with every prospect of benefit to the patient. Fowler's solution in doses of two to four minims is the form I have mostly used, but the arseniate of soda, arsenious acid, and iodide of arsenic have all had trial in my hands. A.D. 54, Dioscorides used the sulphide of arsenic in the treatment of dyspnœa. More recently the drug has been used with conspicuous success by Professor Trousseau and others in France.

One other remedy for the cure of asthma may not be generally known, and I bring it before you. It is the use of the compressed-air bath. A paper might be written on this one subject. The asthmatic patient is caused to inhale, in a bell-shaped chamber, an atmosphere, the pressure of which is increased somewhat above the average. Mr. Mack, of Reichenhall, increases the atmospheric pressure to about twenty-two pounds on every square inch, and the asthmatic patient remains one hour under this degree of pressure. Cases of old asthma with emphysema and venous plethora seem to derive much benefit from the use of these baths. Cases of hooping-cough, and also cases of obstinate anæmia, have been rapidly cured by inhaling the compressed air. Increase of pressure above the degree named may seriously increase the discomfort of the patient.

I have placed on the table a number of the *London Medical Record*, containing a very interesting and practical account of the compressed-air bath; also, I show you a drawing of the bath as in use by Dr. Grindrod, of Malvern. Dr. Grindrod uses the same degree of pressure as Mr. Mack. The only objection that patients tell me they find to the use of the compressed-air bath is that there is apt to be a severe reaction after its use. This, however, can be guarded against by not increasing the atmospheric pressure too high or too rapidly. It has been observed that the respirations are deeper and slower under increased atmospheric pressure. In cases of emphysema, with over-distension of the veins and right heart, the compressed-air baths are especially useful. Moutard-Martin observed that the effect of the compressed air was to dilate the lungs and increase their capacity—"a fact," says he, "not easily explained." The fact seems to me explicable by the more free expansion of compressed air than of ordinary air in the lungs. The way in which this expansion may benefit the already over-distended lungs of an emphysematous patient is the fact that is the more difficult to explain. I expect it is that the air acts as a stimulus and excitant to the exhausted tissue; if so, one can understand the reaction that may, and does, follow the use of the bath at times. Something may be allowed for the fact that in compressed air the patient gets more oxygen into his lungs. This accounts for the great good done by these baths in anæmia, for, in the worst forms of anæmia, oxygen inhalation has proved wonderfully curative in the hands of Trousseau.

SOME ILLUSTRATIONS OF EPIDEMICS.

By WILLIAM H. PEARSE, M.D. Edin.,
Late Government Emigration Service.

I PROPOSE to narrate shortly some experiences of epidemic disease as seen in the somewhat large and isolated communities of emigrant ships. The circumstances of such people on long voyages, involving so many and such marked changes in climate and physical being, are actual experiments. The phenomena presented are likely to be more clearly perceived and to carry more clearly their just ideas than are the greater phenomena of epidemics on shore, for at sea there is not only a limitedness and more known precision of conditions, but the phenomena and the mind of the observer, alike, are relieved from many disturbing and obscuring circumstances.

So complex and involved are the conditions of man and his epidemic deviations, that it has been found impossible as yet to recognise their "forms." Whilst the direct and immediate observation of any and all facts related to epidemics is most important, yet not the less so may be an attempt to place epidemics in a circle of broader generality, even if that generalisation fall far short of embracing them amongst the correlatable physical affections of matter.

VARYING TYPES OF MEASLES, ETC.

The ship *Alumbagh*, of 1100 tons, embarked at Plymouth for Melbourne, in July, 1870, 412 souls, including 86 children under twelve years, of whom 54 were under seven years of age. Measles prevailed during the voyage in twelve successive weeks as follows:—0, 1, 0, 1, 2, 1, 8, 0, 5, 0, 3, 1, 2—total, 24. One only died—a boy, aged 2 years, who had old diarrhœa. On the two days of the eruption his temperature was 100·5° and 100·6°. He died on the third day. The following is a list of the cases, with the duration of the period of ailing prior to the appearance of the eruption, the duration of the eruption, temperature, and in some cases the pulse and rate of breathing. The duration of the disease is counted to include from the day of first ailing:—

Case 1.—Girl, aged 1½; ailed one day; eruption out three days. Temperature and pulse third, fourth, and fifth days: Temperature 101·4°, pulse 140; temperature 99·2°, pulse 123; temperature 99·6°, pulse 120; temperature 98·4°.

Case 2.—Boy, aged 2; ailed one day; eruption out three days. Temperature and pulse on second, third, fourth, and fifth days: Pulse 136; temperature 101°, pulse 126; temperature 99·4°, pulse 126; temperature 98·4°, pulse 108.

Case 3.—Girl, aged 1; ailed one day; eruption out seven days. Temperature, pulse, and breathing from third to eighth days: Temperature 99·2°, pulse 154, breathing 42; temperature 101·9°, pulse 168; temperature 102·6°, pulse 150, breathing 60; temperature 101·2°, pulse 150, breathing 50; temperature (morning) 99·4°, pulse 138, breathing 58—temperature (evening) 101·2°, pulse 168; temperature 99·8°, pulse 150; temperature 99·4°, pulse 150.

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Case 4.—Boy, aged 2; ailed one day; eruption out two days. Temperature on third and fourth days, 99·2° and 98·8°.

Case 5.—Boy, aged 4; ailed two days; eruption out four days. Temperature and pulse from third to seventh days: Temperature 100·8°, pulse 140; temperature 101°, pulse 118; temperature 99·4°, pulse 120; temperature (morning) 98·4°, pulse 111—temperature (evening) 100°, pulse 118; temperature 98·4°, pulse 100.

Case 6.—Boy, aged 10; ailed two days; eruption out three days. Temperature and pulse from second to 5th days: Temperature 101·9°, pulse 100; temperature 100·2°, pulse 112; temperature 99·2°, pulse 100; temperature 98·4°.

Case 7.—Boy aged 2; ailed two days; eruption out three days. Temperature and pulse from third to fifth days: Temperature 100·8°, pulse 145; temperature 99·2°, pulse 112; temperature 98·8°, pulse 100; temperature 98·2°.

Case 8.—Girl, aged 1; ailed two days; eruption out three days. Temperature and pulse from third to fifth days: Temperature 100·3°, pulse 148; temperature 100°; temperature 98°, pulse 120; temperature 97·7°.

Case 9.—Boy, aged 3; ailed two days; eruption out six days. Temperature, pulse, and breathing from third to tenth days: Temperature (evening) 102·5°, pulse 164, breathing 56; temperature (morning) 100·4°, pulse 138—temperature (evening) 102·4°, pulse 150; temperature (morning) 102°, pulse 150, breathing 50—temperature (evening) 103·6°, pulse 154, breathing 54; temperature (morning) 101·9°, pulse 156, breathing 66—temperature (evening) 102·4°, pulse 148, breathing 74; temperature (morning) 101·6°, pulse 150, breathing 90—temperature (evening) 100·4°, pulse 134; temperature (morning) 98·6°, pulse 126—temperature (evening) 99·4°; temperature 99°, pulse 136; temperature 98·4°, pulse 108, breathing 58.

Case 10.—Boy, aged 2; ailed one day; eruption out three days. Temperature and pulse from third to fifth days: Temperature (morning) 100·2°, pulse 130—temperature (evening) 100·4°, pulse 120; temperature (morning) 99·6°, pulse 125—temperature (evening) 98·6°, pulse 111; temperature 98·8°, pulse 120.

Case 11.—Girl, aged 9; ailed two days; eruption out from third to fifth days. Temperature (evening) 102·6°, pulse 126; temperature (morning) 102·1°, pulse 120—temperature (evening) 100·6°, pulse 118; temperature (morning) 98·8°, pulse 100—temperature (evening) 99·8°, pulse 100; temperature 98·5°; pulse 90.

Case 12.—Boy, aged 2; old diarrhœa; ailed one day; eruption out two days; died on fourth day. Temperature and pulse on second and third days: Temperature 100·5°, pulse 144; temperature 100·6°, pulse 150.

Case 13.—Girl, aged 5; ailed two days; eruption out two days. Temperature, pulse, and breathing from third to fifth day: Temperature (evening) 102·6°, pulse 120, breathing 105; temperature (morning) 97·6°, pulse 102—temperature (evening) 99·4°; temperature (morning) 96·3°, pulse 93—temperature (evening) 97·5°, pulse 90.

Case 14.—Boy, aged 1; ailed two days; eruption out two days. Temperature, pulse, and breathing from third to sixth days: Temperature (morning) 103·6°, pulse 150, breathing 34; temperature 103·3°, pulse 150; temperature 101·4°, pulse 132; temperature 98·6°, pulse 118.

Case 15.—Girl, aged 5; ailed one day; eruption out two days. Temperature and pulse on second and third days: Temperature 101°, pulse 150; temperature 98·4°, pulse 120.

Case 16.—Girl, aged 4; ailed three days; eruption out three days. Temperature and pulse from fourth to sixth days: Temperature 101·3°, pulse 150; temperature 101·2°, pulse 145; temperature 98·7°, pulse 126.

Case 17.—Boy, aged 11; ailed one day; eruption out one day. Temperature and pulse on second and third days: Temperature 101·4°, pulse 120; temperature 98·6°, pulse 99.

Case 18.—Girl, aged 7; ailed one day; eruption out two days. Temperature on second and third days, 102·2° and 98°.

Case 19.—Boy, aged 4; ailed two days; eruption out three days. Temperature fourth to sixth days, 99·5°; 98·1°; 97·6°.

Case 20.—Girl, aged 5; ailed two days; eruption out four days. Temperature and pulse from third to seventh days: Temperature 98·3°; temperature 100°, pulse 144; temperature 100·3°, pulse 132; temperature 98·8°; temperature 98·4°.

Case 21.—Boy, aged 4; ailed one day; eruption out one day. Temperature on second, third, and fourth days, 100·3°; 99°; 97·4°.

Case 22.—Girl, aged 5; ailed one day; eruption out four days. Temperature of first five days: Evening 102·3°; morning 101·5°, evening 102·3°; morning 99·5°, evening 102·2°; morning 98·2°, evening 98·8°; morning 97·6°.

Case 23.—Boy, aged 4; ailed two days; eruption out three days. Temperature from third to fifth days: Morning 101·8°, evening 102·2°; morning 101°, evening 101·7°; morning 97·8°.

Remarks.—This epidemic points that the body does not show an uniformity of type in the deviation known as measles. The duration in individual cases was short; the temperature low, in no case reaching 104°, rarely above 102°. The epidemic culminated on entering, from the hot, moist equatorial calm belt, the more bracing south-east trade-wind latitudes. The period of ailing prior to the appearance of the eruption was one day in eleven cases; two days in eleven cases; three days in one case. On this point very reliable accuracy can be reached on shipboard. The most severe case was No. 9; he had very copious eruption and bronchitis. The epidemic of measles in this ship did not commingle in type with other diseases, and the cases were so far of one type throughout; but this has been very far from being the case in some other voyages, where scarlet fever and measles have been "correlated"—*i.e.*, that in an epidemic of measles cases have occurred not to be distinguished from scarlet fever. There are two methods of viewing the phenomena we call epidemics—one, that which, taking cognisance of appearances and symptoms, classifies them into those groups known as the different diseases; the other, which, extending our view beyond the periods of individual life or of historic periods, sees alliances and the common nature of Forms. Thus, to some minds it will seem *à priori* necessitous that measles and scarlet fever should merge one into the other, that they are varieties of a common form, and that their respective fixity of type and differences are minor to their greater common nature. Whilst such views seem suggested by many analogies, they seem also to be supported by experience—*e.g.*, the ship *Hougoumont*, in 1866, embarked 147 men, 137 women, 25 boys, 21 girls, 5 infants for Adelaide. In successive weeks an epidemic of measles prevailed as follows:—2, 2, 3, 1, 3, 5, 4, 3, 3, 1, 1. In the fifth week a case of measles occurred, which, except the copious and characteristic eruption, resembled the sore throat cases which were prevailing. In the sixth week occurred the first case of scarlet fever. One other case only of scarlet fever followed during the voyage; it occurred in the eleventh week. Of the twenty-eight cases of measles, eight were over fourteen years, fourteen were under six years. Twenty-nine cases of sore throat occurred in successive weeks, as follows:—1, 1, 2, 3, 3, 2, 3, 1, 5, 5, 1, 1, 1. None of these cases were in those under ten years of age. Going along with these diseases was another series of cases, which I have called "colds"; commencing with a shivering or depression, they ended variously with "pains in the bones," headache, feeling of general weakness, slight cough, etc. Shall we assume a "specific poison" in the epidemic of measles, and shall we assume another "specific poison" as the cause of the two cases of scarlet fever? Does not this instance point that, however well marked are the differences, yet that the symptoms known as scarlet fever and measles may appear as the result of the same conditions and causes; that they are phenomena truly "correlatable"? Further, when in presence of the cases, one could not fail to be impressed with the fact of a general alliance or series between the measles as showing in the very young, and the sore throat as showing in the more adult.

The voyages and epidemics under consideration were in ships exposed to very different and changing climates,—first high northern latitudes, then the crossing the entire tropics, and again, cold southern latitudes, ranging from 40° to 45°. If epidemic disease be in part viewed as an evolution natural to the body,—as a recurrent deviation out of the normal and prevailing rates of health,—there then, in a voyage exposing the systems of the people to very marked physical changes of climate, etc., are the conditions under and with which such epidemic deviation should occur. In most voyages the infantile fevers—scarlet fever, measles, etc.,—appear soon after sailing, no doubt traceable to individuals infected prior to embarkation; but the epidemics seem to be greatly modified by the changing climates and conditions to which the people are subjected—*e.g.*, the ship *Adamant* embarked 86 children under twelve years and about 200 young men and women.

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The following table shows weekly the entire number of cases of the febrile class:—

	1.	2.	3.	4.	5.	6.	7.	8.	9.	10.	11.	12.
Scarlatina . .	0	1	1	0	0	3	3	2	1	1	0	1
Redness or ulceration of tonsils . .	0	0	5	0	0	0	4	6	3	2	3	0
Hooping-cough .	1	0	2	0	0	0	2	2	1	0	0	0
"Colds" or febricula	2	3	2	5	0	1	4	0	1	2	1	0
Diarrhœa . .	3	4	1	5	16	6	4	4	5	3	9	12

Referring to the thirteen cases of scarlet fever, the first occurred twelve days after admission to the depôt, eight days after embarkation, and after five days at sea; for five days prior to the eruption the patient had been suffering under a very severe scalp wound. I could not help asking myself whether, had it not been for the scalp wound lowering that boy's system, might not the latent scarlet fever have remained undeveloped? Be that as it may, it is remarkable how few cases occurred in so large a community of susceptible children, and how slowly the epidemic extended, it being spread over eighty-four days. Out of the thirteen cases, there were many varieties: three had copious miliary eruption; eight had the reddish eruption of scarlet fever, but not in its usual characteristic form; seven had sore throat, varying from the first to the sixth day of the attack. One man, aged 22, first showed low depression, aching of limbs, anxious countenance, with sore throat on the first day, eruption on fifth, and pleuro-pneumonia on the tenth. Going along with this epidemic of scarlet fever were the series of simple sore throat cases, varying from mere redness of the tonsils to ulceration. But, beyond these, there was a remarkable series of febrile cases, some of which ended as diarrhœa, whilst others were a febricula only. Until the epidemic type of these last two series of cases, in any ship, is well pronounced and maintained during some weeks, the medical officer is never sure but that the people may be on the verge of an epidemic of a fatal "fever"—*e.g.*, in the ship *Star of the South*, embarked about 400 people for Melbourne, mostly young men and women. During the earlier weeks of the voyage, cases presented whose very first recognisable symptom would be some amount of small crepitation at the lower and back parts of the lungs; the patients would be indisposed some days, but rarely confined to bed. On many occasions, during the earlier periods of the voyage, I picked men out on deck who looked dull and depressed, but who were never confined to bed, and who were not so ill as to seek exemption from their duties, and in whom I found small crepitation at the lower part of the lungs. As the voyage progressed, cases assumed a more serious aspect; the simple *malaise* had all the appearance of fever, and many died. The ship *Alfred*, which embarked for Sydney an equal number of people at the same time from the same depôt, and where all had lived many days prior to embarkation, had a voyage remarkably free from all disease. The only circumstance which could be associated as a cause in the ship *Star of the South* was the excessive ventilation and draught of the 'tween-decks, she being fitted with a new and experimental mode of berthing the people out from the ship's side, and where they were exposed to the draughts down the hatches and skylights; indeed, the fatal cases were mostly in those who lived near deck-openings. And I may remark here that excessive ventilation, based on the popular but vague theories of poisons and germs as the causes of epidemic disease, has been a frequent cause of great sickness and mortality on shipboard. The efforts of the medical officer, in charge of people of the class of emigrants, should be directed rather to conserving their vital powers by rest, warmth, due but not excessive ventilation, than to battling against hypothetical poisons and germs.

But what were these cases? Taking the current meaning of nosological terms, they were neither bronchitis, pneumonia, or fever. Not the less were the later cases a true fever; nor could there be any other conclusion but that the late and severe fever cases were of one series with the almost ephemeral cases of the earlier periods of the voyage.

(To be continued.)

At the inquest held on Monday on the body of a man recently released from the Parkside Lunatic Asylum, Macclesfield, who had committed suicide, the jury returned a verdict censuring the officials of the asylum for allowing the deceased to go at large, and blaming his relatives for their carelessness in not keeping a proper watch over him.

CASES OF PELVIC HÆMATOCELE.

By CHARLES J. EGAN, A.B., M.R.C.S.E.,
Assistant-Surgeon to Grey's Hospital, King William Town, British Kaffraria.

The following notes of cases of pelvic hæmatocele which have occurred in my practice may be of some interest to your readers. These affections of the female generative organs have of late years attracted more attention than was formerly paid to them, and all information on this subject must be useful to persons engaged in this branch of the profession. In attending these cases, I must confess that I have been much indebted to the information received from the recent works of Dr. Graily Hewitt and Dr. Tilt.

Case 1.—*Pelvic Hæmatocele, producing Retention of Urine—Tumour in Vagina, discharging through the Rectum—Recovery.*

Mrs. T., aged 24 years, married four years; two years after marriage was confined of twins; had not been pregnant since. I was called to see her January 2, 1868, when she stated that she was not able to pass urine, and that she had dysentery, blood passing from the bowels. The history that she gave of her case was, that three weeks previously (at the time of the menstrual flow), while scouring the floor of her house, she felt a sudden sharp pain in the right groin, accompanied by a feeling of faintness; that she went to bed, and applied hot salt to the seat of pain, which became less acute, but of a dull aching character; that gradually a difficulty in making water came on, and also great uneasiness in the rectum, and a feeling as if she always wanted to go to stool. On the day on which she sent for me, the passage of urine was completely stopped, and some blood had passed from the bowels, but unmixed with any fæculent matter. I made an examination of the abdomen, and found a tumour reaching nearly to the umbilicus, and, considering it to be the bladder distended with urine, I proceeded to pass a catheter. On attempting to use the instrument, I found the valve closed by a tumour in the vagina, and filling it so completely that I could not pass my finger in. However, I passed the catheter into the bladder, and drew off a large quantity of urine. Then, on making further examination of the abdomen, I found a tumour on the right side of the pelvis, extending about two inches above Poupart's ligament, and from the spinous process of the ilium to the pubes. The bowels were constipated, though there was a constant feeling as if she wanted to go to stool; but, though some blood passed, there was no evacuation of fæces. The tongue was slightly furred; the pulse small and weak, and 90 per minute. I was satisfied that this was a case of pelvic hæmatocele, and that the discharge of blood from the rectum was derived from it. I ordered a dose of castor oil and five grains of Dover's powder to be taken every fourth hour. On the following day (January 3) I was summoned in haste to see her, as she had suddenly passed a large quantity of blood from the rectum—nearly a pint; it was quite dark, mostly fluid, but containing some clots. The pulse was the same as on previous day. On examination I found that the tumour above Poupart's ligament was much diminished, and that I could easily pass my finger into the vagina, and that the difficulty in making water had almost gone. There being no change in the pulse from what it had been on the previous day, and no such shock to the system as might be expected from so great loss of blood, I considered that it came from the blood already extravasated, and ordered enemata of warm water, to assist in its evacuation. The discharge of blood continued for some days after, gradually getting less; and on the 10th I found the vagina perfectly open, but there was a feeling of thickening of its walls on the right side and posteriorly. After this she became convalescent, and regular in the menstrual functions. She has not since become pregnant, and suffers occasionally from severe attacks of neuralgia in the region of the right ovary.

Case 2.—*Pelvic Hæmatocele, discharging through the Vagina.*

Mrs. B., aged 30, was first seen December 6, 1871, suffering from acute pain in the left iliac region. She stated that about a week previously, while menstruating, she got a severe wetting from a thunder-storm when working in a field, that the menstrual discharge suddenly was suppressed, and that she was then attacked with violent pain in the left groin, sickness of the stomach, and fainting. Previously to this she had always been healthy, and had never suffered from any derangement of the menstrual function.

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On examining the abdomen, a distinct round tumour, nearly as large as a turkey's egg, could be felt in the left iliac region, part of it rising above Poupart's ligament, movable, perfectly hard, and very tender to the touch. On examining per vaginam, the os uteri was found to be perfectly natural, but a great fulness could be detected on the left side and posteriorly. The pulse was small and hard, 100 per minute; the tongue was rather dry and much furred; the bowels had been open the day previously, but the motions were hard and dry. To relieve the pain, which was very severe, a draught of chloral hydrate ʒss., syrupi zingiberis ʒij., aquæ ʒj., was administered, and at bedtime two drachms of sulphur, to be followed by six drachms of castor oil in the morning.

December 17.—The draught of chloral relieved the pain very much during the night, but the bowels were only slightly relieved in the morning. The tenderness of the abdomen on pressure and the tumour remained as previously. Ordered ung. hydr. cum belladonnæ to be rubbed in over the seat of pain, and an enema of castor oil. The enema brought away a large quantity of scybala and fæces. The draught of chloral was repeated at bedtime.

18th.—Continues much the same; the tumour of same size, and equally painful. Repeated dose of sulphur, to be followed by castor oil in morning; also repeated dose of chloral.

19th.—During the night a discharge of dark blood took place from the vagina, and at same time bowels were well opened; tongue cleaner; pulse 90. Tumour much smaller, less tender; can bear it to be pressed on without flinching. Discharge from vagina continues, similar in quantity to what she usually has at the monthly period.

20th.—Tongue clean; bowels well open; pulse 90. Tumour much diminished in size, and there is little pain on pressure; discharge from vagina still continues. To continue the use of the ointment, and take a mixture containing iodide of potash and citrate of quinine and iron.

23rd.—Tumour barely perceptible, and all tenderness and pain gone; discharge from vagina still continues; gums slightly affected by the inunction of the mercurial ointment. Changed the ointment to one of ung. iodini cum belladonnæ.

26th.—All tumour in abdomen has disappeared. Discharge from vagina much less. Continue treatment as before.

From this time she became convalescent, continuing treatment until the 28th, since which date I have not heard anything of her.

Case 3.—*Pelvic Hæmatocele, discharging through Rectum.*

Mrs. B., aged 24, mother of one child (now a year old). First called to see her January 14, 1872. Two months previously, whilst living in the country, an attack of hæmorrhage from the vagina came on, accompanied with large clots. As she had then passed her usual monthly period by more than a fortnight, it was supposed to be a case of early abortion. About three weeks afterwards, while moving some furniture, she was attacked with acute pain in the right hip and groin, which obliged her to take to bed. Hot salt was applied over the seat of pain, with some relief. She suffered from two distinct attacks of a similar character at intervals of a week, and on the evening of January 13 (the day before I saw her) she had another violent attack of pain, and became quite faint and giddy.

On the morning of January 14 she was suffering much pain in the right iliac region; the tongue was slightly furred, the bowels regular, the pulse small and weak—96 per minute. On examining the abdomen, a fulness was detected, extending about two inches above Poupart's ligament on the right side from the crest of the ilium to about one inch to the left of the symphysis pubis. It was firm and immovable, and tender on pressure. On examining per vaginam, I found the os uteri natural, but in front of it, and to the right side, there was a great fulness in the walls of the vagina, extending laterally close down to the vulva. There was a slight red discharge from the vagina, which had been going on, more or less, since the time in November when the supposed abortion had taken place, and there was not any irritation of the bladder. I ordered her to take a pill containing gallic acid gr. iv., ext. rhei gr. j., every fourth hour, and ung. hyd. c. belladonnæ to be applied over the swelling in groin. To relieve the pain, ten grains of chloral hydrate were given occasionally.

On January 20 she complained of great irritation in the rectum, and passed some dark blood from the bowels, mixed with fæcal matter. Ordered a draught of tincture of opium and sweet spirits of nitre, and a large enema of warm water.

January 21.—Irritation of rectum much less, but has passed much blood by stool; discharge from vagina still continues; swelling in groin less tender and much smaller.

24th.—The irritation in rectum has ceased, and also the passage of blood from the bowel; the vaginal discharge has also stopped. The swelling above Poupart's ligament is much less. The gums are slightly affected by the inunction of the mercurial ointment. To use ung. iodini cum belladonnæ instead of the ung. hydr., and take a mixture of iodide of potash, citrate of quinine and iron, and infusion of quassia.

26th.—Tumour above Poupart's ligament can scarcely be felt; no discharge from vagina; bowels open, without any admixture of blood; fulness in vagina much less.

29th.—Going on well; slightly affected with iodism. To take a mixture of citrate of quinine and iron, and infusion of quassia.

From this period became convalescent.

The first of these cases was simple, the blood being extravasated in the cellular tissue, between the walls of the vagina, the rectum, and the muscles lining the bones of the pelvis, and derived either from some vessels of the uterus or the rectum. In the second case there was more room for doubt, as on first examination it presented all the characters of an ovarian tumour, and, except for the history of its sudden occurrence, it might have been mistaken for such. As I have not had any pathological experience in these cases, I do not like much to give any opinion, but I think that this second case was most probably an extravasation into the cellular tissue of the broad ligament of the uterus, the blood being derived from the plexus of vessels beneath the ovary. In the first and second cases there was only the one effusion of blood, coming on suddenly, and not being renewed at intervals, as it was in the third case. It was on account of this recurrence of the hæmorrhage that the gallic acid was administered, little treatment being required in the others. These three cases assist, I think, in confirming the opinions that hæmatocele usually occurs at the monthly periods; that it is generally caused by some unusual exertion or exposure during menstruation; that, when extra-peritoneal, it is not usually dangerous to life; and that, in many cases, the extravasated blood will find an outlet without surgical interference.

REPORTS OF HOSPITAL PRACTICE
IN
MEDICINE AND SURGERY.

SEAMEN'S HOSPITAL, GREENWICH.

CASE OF THORACIC ANEURISM TREATED BY GALVANO-PUNCTURE—FATAL RESULT.

(Under the care of Dr. RALFE and Mr. W. JOHNSON SMITH.)

JOSEPH K., aged 41, was admitted into the Seamen's Hospital on July 11, 1873.

Previous History.—Has never had syphilis. General health good up to March, 1872, when he first suffered from a sharp pain in the front of the chest, which pain generally increased at night, and then was often so severe as to prevent sleep. No cough until the following August, when he was laid up with symptoms of severe cold. He remained ill for three months, and suffered during this period from general weakness, loss of appetite, cough, and occasional shortness of breath. He subsequently made a voyage to the Cape of Good Hope.

State on Admission.—Is a well-made, muscular man, of medium height. Face pale, and the expression one of anxiety and some physical suffering. The hair, which has been dark, now turning grey. He is very weak. When in bed remains on his back, as lying on either side increases the intensity of pain in the chest. The tongue moist and slightly furred. Appetite indifferent. Has frequent cough with muco-purulent expectoration. Dry rhonchi heard all over both lungs, especially the right. Over the right margin of the sternum, at the junction of the second rib, is a prominence which is very tender and pulsates visibly. Corresponding to this prominence, and over a portion of chest-wall just above, of about the size of a five-shilling-piece, there is impaired resonance. In this region can be heard a faint systolic and a loud diastolic bruit. The

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prominence is the seat of severe gnawing pain, which becomes worse at night. In addition to this pain, he complains of shortness of breath and wheezing in the throat. Pulse 80; no difference between that of right and left radial arteries. The radial arteries rigid. Pulsation of common carotids very manifest to the eye. No signs of enlargement or displacement of the heart; over the apex is heard, instead of the first sound of the heart, a faint bruit, which is followed by two distinct bruits, the first louder than the second. No pain in the head. Pupils equal. The man does not sleep well, in consequence of the severe pain in the chest.

The patient was ordered to keep to his bed, and was put on milk diet. The prominence in front of the chest was covered by belladonna plaster, and a draught containing half a drachm of hydrate of chloral was given every night. During the first three weeks the patient improved to a slight extent: the pain over the sternum was less severe, and he slept fairly at night. No change was observed in the physical signs.

In the first week of August there was a marked change for the worse: the pain in the tumour became more severe, and the pulsation more distinct. The tumour seemed larger, and its diameter on August 4 measured two inches. On auscultation a loud double murmur could be made out. Ice was applied, but with no satisfactory result.

On August 12, iodide of potassium in five-grain doses was given every six hours, and on the 16th the quantity was doubled.

On the 20th, the pulsation was decidedly less marked, but the patient still complained of acute pain, and was much troubled by cough and wheezing.

On the 26th, the tumour seemed to be increasing in size; the pulsation was very strong; the skin over the tumour was slightly congested and pitted on pressuse; and there was evidently but a thin layer of soft tissues between the stream of blood in the aneurism and the surface.

28th.—Galvano-puncture was practised at 2.45 p.m. Foveaux's modified form of Smee's battery was used, and a large needle, insulated by a portion of a No. 1 gum-elastic catheter, was connected with the positive pole. The negative pole was connected with a plate of zinc, which was placed over the sternum near the tumour, a flat piece of sponge saturated with a solution of common salt being placed between the plate and the skin. The most prominent part of the tumour having been frozen by the ether spray, the needle was introduced to the depth of an inch and a half, and the battery then put in action. The needle was kept in place for half an hour. During the first ten minutes five cells were in action; during the following fifteen minutes the number was gradually increased to fourteen; during the last three minutes twenty cells were in action. The patient was occasionally troubled with cough during the sitting, but stated that he felt no additional pain in the tumour. The pulse, which immediately before the introduction of the needle was 72, went up towards the end of the sitting to 90. The free portion of the needle was found to be black and roughened, and its point blunted.

29th.—Patient slept much better during the previous night. He asserts that the pain and pulsation have been much reduced since the operation. The cough also is much less; the tumour at its margin is certainly harder, although the pulsation at the centre can be felt quite as distinctly as on the morning of the previous day. No signs of irritation around the seat of puncture.

September 5.—No great change in the symptoms or local conditions since last report. The man has been able to sleep at night since the operation, in consequence of diminished intensity of pain. At 3 p.m. a large needle was introduced as before into the tumour, the ether spray having been previously applied to the skin. A zinc plate in connexion with the negative pole was applied over the surface of the chest, as on the previous occasion. The sitting was continued for forty minutes. Eight cells at first were put in action, and the number afterwards gradually increased to twenty. No pain during the operation, and no signs of irritation around the needle. The skin covered by the zinc plate and sponge moistened with solution of salt was found at the end of the sitting to be very red.

6th.—Slept very well last night. The pulsation is decidedly less this morning. The patient states that he feels no pain in the tumour.

8th.—At 7 a.m. the patient was suddenly attacked by acute pain in the tumour, which lasted for about half an hour, and then as suddenly ceased.

From the last date to September 16 had occasional slight pain in the tumour, but suffered very little from cough. On the evening of the 16th a single needle was again introduced at the right side of the tumour, a zinc plate with a layer of moistened sponge applied to the skin on left side of tumour, and a current maintained for about an hour.

23rd.—No decided change having taken place during the interval, the operation was repeated, and a current kept up for an hour and a half. During the sitting twenty-three cells were put in action. The ether spray was not used on this occasion.

29th.—To-day, at 7 p.m., two needles—one connected with the positive, the other with the negative pole—were introduced by Mr. Roche, who was then acting as resident surgeon. The current was kept up for one hour. On removal of the needles there was slight hæmorrhage from the punctures, and on the following day there was much redness of the skin over the centre of the tumour. This last operation, however, was followed in the course of three days by much relief of all the symptoms, and the tumour pulsated less and became harder and less prominent.

October 7.—A single needle was introduced into the sac. At the suggestion of Dr. Poore, who was present on this occasion, the zinc plate was not used, the negative pole of the battery being connected with an ordinary holder, which was held firmly in the patient's left hand. The sitting was continued for one hour, and thirty cells were finally put in action. The last operation was followed by still more relief, both in the thoracic symptoms and in the local signs. The patient felt stronger and better, and at his own request was allowed to sit in a chair for two hours during the day.

14th.—Operation repeated as on October 7. This sitting was not immediately followed by any signs of irritation, and the tumour, though still pulsating, remained firm at its margins. On the 20th—six days after the last sitting—the skin over the most prominent part of the tumour was found to be red, and on the following day there was a small deposit of pus around the seat of the last puncture. The skin at this part also became soft and thin.

22nd.—Operation repeated, and a current passed for one hour and a half, a needle being passed into the sac, and the negative pole connected with the left hand of the patient. This sitting seemed to reduce the pulsation, and the skin over the centre of the tumour became less tense and red.

27th.—Skin over the whole surface of tumour red and œdematous. At the centre are four small pustules, the intervening skin being thin and the subjacent parts soft and boggy as if infiltrated with pus.

On October 28, as the pulsation was violent and the stream of blood very near the surface, a needle was again introduced into the sac and a current passed for one hour and a half, a holder in connexion with the negative pole of the battery being held as before in the patient's left hand. This sitting was followed by slight diminution of the pulsation, and flattening of the summit of the tumour.

On November 1 the skin was again very tense, and there was a discharge of blood-stained pus from the orifices on its surface, which orifices were distinct from the punctures made by the needle at the last two sittings. The patient was now very weak and depressed; the cheeks at times were flushed, but there were no symptoms of constitutional reaction. No complaint was made of any deep-seated pain in the region of the aneurism.

On the morning of November 4 the skin at the centre of the tumour was very thin, and perforated by three minute orifices, from which there was a constant discharge of thick blood-stained pus. At 11 p.m. there was a sudden gush of bright-red blood from this part, which lasted for a few seconds, but amounted to about a pint and a half.

At 7.30 a.m. on the morning of the 5th the bleeding was repeated, the gush coming on suddenly, lasting but for a short time, but being very profuse. The patient now became very weak and anæmic. Death at 6.30 p.m.

Post-mortem Examination (November 6, at 3.30 p.m.).—Body that of a rather stout and well-nourished man. Marked rigor mortis in extremities. Two inches and a half below the right sterno-clavicular joint there was a small opening in the skin with clean-cut margins. Through this opening the little finger for the whole of its length could just be passed into the midst of soft clot, coming into contact with edges of bare bone and calcareous plates. On opening the body, the subcutaneous cellular tissue of the abdominal and thoracic walls was

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found thickened by a plentiful deposit of adipose tissue. The omentum and mesentery also were loaded with fat. The parietal pericardium was found to be slightly thickened, and adherent to the surface of the heart over its whole extent. The walls of the left ventricle were much thickened; the mitral valves were sound. The arch of the aorta from its commencement was much dilated, and its inner surface was rough and studded with hard calcareous plates. At a distance of one inch and three-quarters above insertion of semilunar valves was the commencement of an oval slit, one inch in length, situated in the anterior wall of the aorta, and running in the same direction as the canal of the vessel. This slit, the margins of which were smooth and slightly rounded, opened into an aneurismal sac, measuring two inches and three-quarters from side to side, and two inches from before backwards. The walls of this sac were closely adherent to the surface of right auricle, and in front to the posterior surfaces of the sternum, and of second, third, and fourth costal cartilages on right side. The interior of the sac contained a mass of soft clots, some of which were readily washed away by a stream of water. The inner surface of the sac along the left concavity was quite exposed, but on the right concavity it was covered by a thick pyramidal mass of fibrin and firm clot, which occupied the whole of the right half of the sac. This mass, at and near its adherent base, was composed of pale fibrinous deposit in layers; superimposed on this was an irregular mass of pink and softer deposit, and attached to the summit of the mass were several pendulous portions of soft clot, some of about the size of a pea, others as large as an almond. Most of these were firmly attached at one or more points of their surfaces, and could not be detached by a stream of water. In front of the sac was an opening about three-quarters of an inch from side to side, which corresponded to the opening in the skin near the upper part of the sternum. Through this inner orifice protruded several of the clots already described as being fixed by one or more points to the inner wall of the sac. The finger, when introduced through the outer orifice into the sac, passed between the second and third costal cartilages, the opposed margins of which were bare and rough, and through a slit-like erosion involving two-thirds of the width of the sternum. The soft parts around the external opening were reddened and infiltrated with pus; in the tissues around the inner opening and in the walls of the aneurismal sac there were no signs of recent irritation. None of the three large arteries springing from the arch of the aorta were involved in the aneurism, but on the posterior wall of the vessel, and just below the origin of the innominate artery, was seated a second saccular aneurism of about the size and shape of a Brazil nut. This communicated with the artery by a long oval slit.

MEDICAL MEMBERS OF THE NATIONAL ASSEMBLY OF FRANCE.—These are 29 in number, of whom 4 belong to the Right or Right Centre, 4 to the Left Centre, 16 to the Republican Left, and 5 to the Republican Union—*i.e.*, of the 29 members, 4 sit on the Right and 25 on the Left. Among this number, 3 are rather men of science than practitioners—viz., MM. Littré, Paul Bert, and Naquet, while 2 have left the profession. The above 29 medical members of the National Assembly, together with two *pharmaciens*, also members, formed themselves into a society, which until the middle of last year met once a week to consider the questions brought before the Assembly that had any bearing on medicine.—*Lyon Médical*, January 4.

THE ALLEGED DEATH FROM ETHER AT BOSTON.—The *Boston Medical and Surgical Journal* for November 20 and 27 gives a long account of the proceedings at an inquest, held by a jury of physicians and apothecaries, on the body of a lady who died shortly after the administration of an anæsthetic by a dentist. It seems that a mixture of about one-third chloroform and two-thirds ether was administered by means of a hollow sponge. The verdict was to the effect that "her death was caused by the inhalation of a mixture of chloroform and ether. The jury use this opportunity to caution the public against the inhalation of so dangerous an agent as chloroform for the production of insensibility to pain. In the opinion of this jury, the inhalation of sulphuric ether is safe, while the inhalation of chloroform, either alone or mixed, is always attended with danger." The *Boston Journal* cautions dentists that in future such employment of chloroform may be regarded as a criminal act.

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Medical Times and Gazette.

SATURDAY, JANUARY 17, 1874.

FEES.

A VERY little consideration is sufficient to convince anyone how extremely difficult it is for the College of Physicians, the College of Surgeons, or the two Colleges conjointly, to effect anything approaching to legislation upon the question of fees. The guinea fee for the visit of a physician or of a consulting surgeon, the double fee for a consultation, the guinea a mile for journeys, and the twenty, fifty, or a hundred guineas for operations of varying importance, were not arrived at by any legal, or university, or collegiate enactment or ordinance, but rather by the influence of custom—of unwritten law—of tradition—at length becoming universally known, understood, or accepted. So when, some time after the rise of the railway system, the expense of posting and the loss of time in travelling became much diminished, it was felt that some modification in the fees for journeys would be advisable and fair. The reduction of one-third in the fee for distances travelled by railway was made at a conference between Sir Benjamin Brodie, Dr. Bright, Sir Charles Clark, and Sir Charles Locock. The agreement made at this conference has since been as generally acted upon by the profession as if it had been an ordinance of the Colleges of Physicians and Surgeons; but there can be no doubt that it would be more generally known by the public, and would be less open to doubt or question, if, instead of being a mere private arrangement made by a few leading men and adopted by others, it had the force of official collegiate authority.

Some ten or twelve years ago, the late Dr. Todd and Mr. Toynbee openly raised the question as to the standard or guinea fee as the basis on which so many other arrangements are grounded. It was felt and repeatedly urged in these columns, that the fall in the value of gold, and the rise in the cost of many of the most essential articles of necessity, comfort, or luxury, together with a great general increase in the wealth of the community, the spread of a more liberal education, a great increase in wages and salaries, and a largely increased domestic expenditure among all classes of the people,

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should be considered in relation with the old traditional habitual ordinary guinea fee. At any rate, Dr. Todd said, if the guinea be accepted as the ordinary fee for ordinary service, it is no equivalent for such unusual or extraordinary service as is implied in the first visit of a patient, a prolonged stethoscopic examination, a chemical or microscopical examination of the urine or other excretions, a long examination into family history, and possibly some responsible correspondence with relatives or medical attendants in the country or abroad. And Mr. Toynbee followed this up by saying that the use of many of the instruments used by the surgeon to complete the physical diagnosis in a doubtful case were at least as worthy of recognition of the time and skill sought for by the patient, as the use of the stethoscope or urinometer by the physician, or the speculum by the accoucheur. If this be acknowledged, then a first visit, or a visit where physical signs have to be carefully noted, is worthy of a double fee.

Next arose the question whether, if a guinea were the proper fee for a patient who calls upon the consultant at his residence, it is also sufficient when the physician or surgeon must visit the patient in his own room. Dr. Todd, in the last year or two of his practice, without absolutely refusing, openly made known his dislike to visiting any patient for the single fee, and insisted upon an increase if the patient's house were more than a mile from Brook-street. We do not wish to mention the names of living practitioners, but it is understood that at least one eminent surgeon who follows a special line of practice has acted upon the same principle for several years past.

Latterly, the reduction of the fees for journeys to less than a guinea a mile has been felt to be a hardship when the distances are less than ten miles. A man whose time is fully occupied goes by appointment some six or eight miles into the suburbs; he is away from two to three hours; he tires a pair of horses; and receives five guineas—a very insufficient remuneration. How a thriving barrister would sneer at such a fee for such a loss of time! And the feeling is becoming general that for journeys of ten miles or less there should be no deduction from the standard fee of one guinea the mile.

The fees for detention in courts of law, or in the house of a patient in town or country, or at night, are all matters deserving of attentive revision, with due regard to the present condition of the nation. And so with the fees for surgical operations, for the assistants of the operator, and for the attendance after operation. The profession should know, and so should the public, what are the ordinary fees considered by the College of Surgeons to be the fair and proper remuneration for skilful and responsible service.

Anyone who acknowledges all this will also see how extremely difficult it would be for either of the Colleges, or for both of them, to construct a uniform scale of fees for all fellows and members. Indeed, it would be absurd to suppose that consulting practitioners in the metropolis, and family attendants in the country, could possibly be guided by the same laws. Senior and junior practitioners in town, rich and poor patients in town or country, would all require separate consideration, and it is difficult to see how variations in an official scale of fees can be admitted. We understand that this difficulty was fully admitted by Mr. Spencer Wells, when pressing the motion of which he had given notice upon the Council of the College of Surgeons, and that he urged this difficulty as the reason why the appointment of a committee to prepare a series of resolutions for the consideration of the Council was so very necessary. A majority of the Council, however, considered it more expedient that the matter should be discussed in private conference rather than under official authority. If the College of Physicians do not take up the matter officially—as we think it is their bounden duty to do—we trust that some of their leading members will at least join with the eminent surgeons in any private conference that may be held, and that the result of their deliberations may be made known for the information of their professional brethren and of the public. We should greatly prefer an official or conjoint committee of the two Colleges; but if the objections to this plan are too strong to be overcome, then by all means let us have the conference,—for the matter is too important to remain without some authoritative settlement. If any agreement be arrived at for the consultants of London, those of Dublin and Edinburgh will certainly follow, and the large towns of England will either frame new regulations or modify any already in force. No such agreement could possibly be *enforced* upon anybody. Any man might say, "I will remit a part or the whole of the fee in cases where such generosity is deserved," or "I consider my time and skill worthy of higher than average remuneration." But the official sanction of an average scale would be most useful both as a protection to the profession against inadequate remuneration, and as information to the public with respect to the fees by which the services of the most eminent men in the profession may be secured.

VIVISECTION.

Our daily contemporary the *Times* has lately published several letters under the headings of "Vivisection" and "Cruelty to Animals in Italy," some of which have already been noticed in our "Topics of the Day," and which form a quasi-scientific controversy worthy of observation. We shall be very glad if any real and lasting good comes out of the correspondence; but so far we recognise only two results—the filling up of a certain amount of space in our contemporary's columns, and the absolute clearing away of some accusations of cruelty made against Professor Schiff, of Florence. The controversy was excited by a letter of the Roman correspondent of the *Times*, alluding to legal proceedings which had been commenced against Professor Schiff in Florence, and commenting on what he assumed to be the Professor's dealings with animals in his physiological laboratory, in a spirit only to be excused by ignorance or explained by prejudice. He stated that in the Physiological Museum "the vivisection of animals is practised on a large scale, to the frequent distraction of the inhabitants of the adjoining houses, to whom the screams of the tortured animals allow no rest"; spoke of "the Professor who cuts up living cats and dogs"; said that "the question whether vivisection is at all necessary, or even in any manner useful, for scientific purposes," has in London, Paris, Berlin, and Vienna been settled in favour of the dumb creation; and so on. This production drew from Mr. E. Ray Lankester a letter, in which he defended the celebrated director of the Physiological Laboratory of Florence against what was, if anything, a charge of wanton and useless cruelty, and in which he asserted that the Professor is "one of the most humane and beloved of Florentine physicians," and pointed out the great value and actual necessity of vivisection, rightly used, for the advancement of physiological science. Further, he declared (what no one who has any real knowledge of the matter will dispute) that by the most genuine and eminent students of science it is employed only for the purpose of enlarging our knowledge, and is used in the most humane and considerate manner. Other writers also entered the field. One, writing under an initial only, taxed Professor Huxley with inciting boys and girls to practise vivisection, and to produce intense pain; his only foundation for the charge being apparently the fact that the Professor, in his admirable "Lessons in Elementary Physiology," is not content with mere dogmatic teaching, but gives evidence and proofs of his statements. Another, Mr. George Macdivain, an author of works on medicine and surgery, declared that vivisection has never "made any discovery of any value," and, indeed, that "there is no difficulty

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in proving, on the inexorable testimony of facts, that vivisection is not only useless but exceedingly mischievous." While a third, Dr. Arthur De Noe Walker (we like to give him his full name) out-Heroded Herod in his attack upon Professor Schiff and his denouncement of vivisection, which, in common with the most ignorant and prejudiced of its opponents, he is pleased to speak of as dissecting animals alive. This gentleman has studied much abroad, and his experience has been very unfortunate, for he says: "All the eminent and qualified experimenters I have studied under, both in France and in Italy, as far as I could judge, seemed to me hardened and heartless, and Professor Schiff was not an exception;" and certainly this is very true of the learned Professor, if we are to believe Dr. Walker's statements, for he adds, "The keeper of the Dog's Home at Florence told me he had made over no less than 700 dogs to him (the Professor), and I have no hesitation in saying, from past experience, that 680 of them were tortured for nothing. I say distinctly—for nothing; because to dissect an animal alive, simply to show the students that which has already been proved and established over and over again, is inhuman, and utterly unworthy of anyone calling himself a scientific man." This, it may be remarked, is all in reply to Mr. Ray Lankester's statement that Professor Schiff is "one of the most humane and beloved of Florentine physicians"; and Dr. Walker further adds, "The Professor in question does not practise as a physician, and—whether quite justly or not, I do not pretend to say,—but every time I pay my yearly visit to Florence, two-thirds of the persons I speak with on this painful subject couple his name with execrations." Mr. Lankester replies by "re-asserting that Professor Schiff does to some extent practise as a physician," and states that he had only twice seen the Professor experiment, and that he then made use of chloral to prevent pain. So we have a direct conflict of testimony as to the Professor's character as a man and as a scientific experimenter; and we will not say one word as to which witness—judging from reputation, and the intrinsic evidence afforded by their letters — is most worthy of credence. Happily, however, this side of the controversy has been completely settled by the letters from Dr. Alexander Herzen and from Professor Schiff himself. Dr. Herzen has been the Professor's assistant for five years, and says, "I know that he never made a single experiment upon a living animal without rendering it first insensible by means of ether or chloroform, at least, in all those cases in which the nature of the experiment was such as to let him presuppose the possibility of pain being suffered by the animal." And we last week published the Professor's own statement of the great and unremitting care he conscientiously takes to avoid giving pain in his experiments; not only, in all operations likely to prove painful, putting the animals previously into a profound sleep, "which is maintained during the whole of the operation," but also having "all the animals killed, in which these experimental injuries might subsequently cause pain, immediately after the experiments, and before they have entirely returned to consciousness." The Professor also expresses his regret that the action, which had been commenced against his laboratory as a nuisance, "should have been interrupted without the tribunal having been able to investigate the truth or falseness of the facts upon which the adversaries base their demands." The Roman correspondent of the *Times* had stated that the suit had been adjourned owing to the absence of the counsel for the plaintiffs, and that no further notice of it had since appeared in the Florentine journals, and added that this was "probably because the point at issue had been privately and amicably adjusted, and the defendants had pledged their word that the offience shall not be repeated." The Professor's letter disposes of that probability.

There remains the question of the usefulness and rightfulness of vivisection properly and scientifically employed. We need not observe that this is far from being the first time that the propriety and the utility of vivisection has been disputed, or roundly denied. The subject is sure to turn up for discussion every now and then, and one of our chief reasons for noticing the present controversy is that it is a good specimen of the way in which the matter is handled in letters in the public journals. By the unlearned, and even by those who (being members of our own profession) ought to be, to some extent at least, better informed, vivisection is spoken of as the practice of "dissecting animals alive," and it is asserted that it never has been, and never can be, of any use for the advancement of medical knowledge! We do not believe that any good can be obtained by the discussion of such a matter in a daily paper, and do not regret, therefore, that it appears to have been dropped at present. But we cannot help expressing some surprise that the usefulness of physiological experiments by vivisection should be ignored or denied in the country of Harvey, Charles Bell, Marshall Hall, John Hunter, and other great physiological discoverers, and that any student of physiology or medicine can be found to suppose that this means of investigating the functions of living animals is no longer permitted in France, Germany, or England. All physiological experiments ought, of course, to be performed with the utmost care and attention to the prevention of pain; and while science has now placed in the hands of experimenters many sure ways of doing this, we have no manner of doubt that the necessity for employing them is, in the fullest extent, very generally, if not universally, recognised and acted on.

SCIENTIFIC DIETARIES.

THE question as to how far we are in a position to construct diet tables on a purely scientific basis has been forcibly suggested to us by the consideration of a volume of the International series, from the pen of Dr. Edward Smith, dealing with the subject of foods mainly from a scientific point of view.(a) Dr. Smith is not a new student of the subject, for he has already published works of great importance on it, and we are therefore all the more inclined to listen with respect to what he says. In truth, his volume is one of very great interest, and may well be commended both to the strictly scientific student and to the lover of science in a more popular form. There can be no question but that the most successful dietaries have been constructed, not on what we might call a scientific, but rather on a strictly practical basis. Given a collection of individuals differing more or less in bodily habit and in various other respects, what is the average amount of nutriment requisite to keep them in fair health and strength without an increase and without diminution of bodily weight? Such is the problem to be solved, and it has been so in a fairly satisfactory manner, as exemplified in the dietaries of workhouses, asylums, schools, and prisons; but it has been solved in a purely tentative manner, as witness the disastrous experiences of the Irish famine and the outbreak of scurvy in the Millbank Prison, to say nothing of less widely known instances of evil arising from a defective dietary. We question if anything purely scientific could be evolved in the existing condition of our knowledge which would be nearly so satisfactory as that which has been evolved by painful experience. Nevertheless, in a certain way it has been attempted, and the attempt is, at all events, exceedingly interesting.

Let us assume that the quantity of carbon eliminated as carbonic acid from the body in twenty-four hours amounts to 200 grammes. This must be made up by the ingesta in some form or other; and if we attempt to do so by ordinary lean meat, we should require, allowing

(a) Foods. By Edward Smith, M.D., LL.B., F.R.S., Inspector and Assistant Medical Officer for Poor-law Purposes of the Local Government Board, etc. London: Henry S. King. Pp. 485.

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such meat to contain 12½ per cent. of carbon, as much as 1599 grammes of it. But as the flesh contains a certain proportion of nitrogen, which is eliminated as urea, into the composition of which carbon enters, we must make an allowance to this effect, and add to the dietary 200 grammes more meat. This is taking for granted that the whole of the meat is digested, which is not the case, and so an additional allowance must be made on this score, insomuch that to provide for the amount of carbon eliminated from the system daily, we should require to give a man, fed on meat alone, as much as 2000 grammes, and this without any allowance for excessive exertion. Another element here enters into the calculation. If we give a man 2000 grammes of meat, we give him too much nitrogenous food, implying thereby waste. From all which it follows that the required carbon is best furnished in part by non-nitrogenous substances, as starch and fat, leaving the nitrogenous elements alone to be supplied by meat. On this basis a man can work and maintain his bodily weight with a diet consisting of 130 grammes of lean meat, or other albuminous material, 84 of fat, 404 of starchy food, 30 of salts, and 2800 of water, the nitrogen being to the carbon as 1 to 15, or thereby—a fairly good ratio.

But the question arises, How are these elements best supplied? And it is into such matters rather than calculations like the above that Dr. Smith enters; for, although such calculations are valuable, still they are open to objection. Thus the different degrees of digestibility are here hardly dealt with; the value of gelatine as an article of food is not considered—for, indeed, that is a moot point still unsettled; and many other practical objections might be raised as difficulties in the way of making such calculations strictly accurate. In fact, there are even many difficulties which might be raised against some of Dr. Smith's assumptions, especially as regards meat. He takes it for granted that all varieties of meat if equally digestible are equally nutritious; but this is a point which still remains unsettled. Nor do we see any better way of settling many of these vexed questions than that which was long ago suggested to us by a skilled medical practitioner who had long presided over a convict prison. In no other condition save prison life can we exactly command the periods of rest, of labour, and of sleep; in no other condition can we be sure of the quantity of food consumed by each individual, and of the hours at which it is consumed daily. In short, in convict prisons only have we the means of determining exactly the relative values of many articles of diet in a strictly scientific way, yet in a way that is open to no practical objection. If Dr. Parkes has been able to obtain good results from experiments on soldiers, why should we not make some use of convicts in the same way? Surely, if ever, the old rule, *fiat experimentum in corpore vili*, would here hold good.

THE WEEK.

TOPICS OF THE DAY.

We have great satisfaction in being able to call attention to the formation of a "Webb Fund," a report of which will be found in our pages. In commending it to our readers, at home and abroad, we need not add a word to the simple statement made by Dr. Cholmeley: that, with the knowledge of Dr. Webb's persistent hard work, will much more than justify the effort made in aid of his family.

The Macclesfield magistrates last week discharged, on payment of the costs, five grocers who were summoned before them for selling as pure tea that which was proved to be adulterated, the chairman expressing an opinion that it was a hardship that retail grocers should suffer for the adulteration of tea which they purchased as being pure. In the administration of the law much hardship is often involved, for there are many anomalies in the statute; but did the Macclesfield magistrates in this decision omit to see how it would lead other retailers of adulterated food than grocers—and the grocer's is not an exceptional case of hardship—to expect similar clemency from the Bench? The alleged hardship on the retail grocers will be the alleged hardship of a large number of other retail dealers of articles of food and drink. To say the least, this magisterial decision in the present state of the law is neither judicious nor consistent. There is, without doubt, an enormous quantity of adulterated food of all descriptions imported into this country with a full knowledge of its impurity. In the article of tea alone, Dr. Arthur Hassall, writing to the *Times* last week on the adulteration of tea, asserts that—"Those importers, therefore, who buy these adulterated teas of the Chinese, are not in any way imposed upon, but are fully aware that the teas in question, as shown both by their appearance and the prices at which they are sold, are adulterated." We may look forward, we hope, to the Government undertaking to test the purity of imported articles of food and drink before their disposal to the public. The Government attestation of the non-adulteration of the article would at once be an immense boon to the public. It would minimise these cases of presumed adulteration by retail dealers before the magistrates, so calculated to create and foster bitterness and acrimony. The axe would thereby be laid to the root and foundation of a gigantic system of nefarious trading which has too long been permitted to exist.

A case of great importance lately occured at Crick, near West Haddon. The facts may be stated briefly. An elderly lady of the name of Gulliver some little time since died under the following circumstances, and her body was exhumed at the end of about a month for the purposes of the inquiry. She had been in good health for years, and within three days of her death. In the middle of November she wrote to her niece, the wife of Mr. Waters, a surgeon, at Worcester. Mrs. Waters arrived on November 20, and remained with her aunt, Mrs. Gulliver, until her death on the 23rd. On the morning of November 22, Mrs. Waters requested Mr. Walker, a surgeon at Crick, to visit her aunt. He expressed his willingness to see her at once. Mrs. Waters said she was then sleeping, and thought she had better not be disturbed. Mr. Walker visited Mrs. Gulliver in the evening, and found her much worse than he anticipated. She was very sleepy, and, applying the stethoscope, he considered she was suffering from heart disease, but he could not account for the drowsiness. He prescribed for her, and the next morning she appeared better. Soon after, however, she was taken very ill, and died two hours after his second visit. A short time after Mrs. Gulliver's death Mrs. Waters expressed her regret that she was present, because Mrs. Gulliver had made a will in favour of her (Mrs. Waters') husband, and the other family knew nothing about it. We give the following evidence *in extenso*, as it is of great importance. The witness was Jane Middleton, the deceased's servant. She stated that from the time of Mrs. Waters' arrival at Mrs. Gulliver's, on November 20, up to the 22nd, when she sent for the doctor, no one had seen her mistress but Mrs. Waters; that on the 22nd her mistress was ill, and Mrs. Waters went to see the doctor, who came in the evening, and when he left told her (the servant) that her mistress was very ill. Her mistress was sick on the morning of the 22nd. She sat up with her most of the night following. On the 22nd, before the deceased was sick, Mrs. Waters gave her a bit of toast and a glass of sherry. On the 23rd, soon after Mr. Walker had seen the deceased (between nine and ten o'clock), she was again taken very ill; and the girl's statement on this point is as follows:—

"Soon after the doctor's departure the deceased was again taken very ill. I heard Mrs. Waters open the window, and, as I thought, shut the door, and I then went upstairs to see how

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my mistress was. I saw that she was dead. That was about twenty minutes to twelve o'clock. When I went upstairs the window of the room was wide open, and I smelt scent in the room, not very strong. Only about a minute or two before the deceased died, Mrs. Waters came downstairs, and fetched a clean top sheet to put on the bed, and it had been put on when I went upstairs. She put the dirty sheet away. I think Mrs. Waters and the deceased were very good friends."

She added that Mrs. Waters sent her to fetch Mr. Walker, and also Miss Watts (Mrs. Gulliver's sister). She had been told by Mrs. Watts, a niece of the deceased, to preserve what had been rejected by the deceased's stomach for Mr. Walker to see, and she put it aside for the purpose, but someone had thrown it away." At the adjourned inquest, Dr. Walker said his certificate of death was that it had been caused by cardiac valvular disease. He added that Mrs. Waters told him when he arrived, after Mrs. Gulliver's death, that she had asked her (Mrs. Waters) to open the window, that she had put some eau de Cologne to Mrs. Gulliver's face, and that Mrs. Gulliver said it was so nice that she wished some poured into her mouth, and she did so. Witness told her eau de Cologne would not hurt her. In the summer, when Mrs. Waters was at Crick (where the deceased lived), she applied to witness for some morphia. She said she wanted it for a poor old woman who was suffering at the West-end, whom she had been in the habit of supplying. He hesitated at first; but, as she was the wife of a medical man, he supplied her with nine grains of acetate of morphia. In the medicine which he subsequently supplied to Mrs. Gulliver there was no morphia. Professor Julian Edward Desborough Rogers was examined, and said:—

"In the œsophagus I found a quantity of the same material as that in the stomach, proving that immediately before death there must have been an effort to vomit. On opening the stomach I found no appearances of irritation, and I found on analysis that there was no mineral poison in the contents of the stomach. We have the means of detecting the presence of alkaloids. I found in the stomach and liver and the œsophagus the presence of an alkaloid. I have not quite finished the analysis of the kidneys. I then proceeded to ascertain the character of that alkaloid. It was morphia. Upon that I have not the slightest doubt. I found morphia in the stomach and its contents. In the liver and the blood I found the presence of an alkaloid; but there was not sufficient to enable me to determine its character. There was no other matter connected with the analysis which it is material to mention to the jury. The circumstances actually attendant on the death were not such as would lead me to form an opinion as to the immediate cause of death. I am not prepared to say whether death arose from natural causes or not; but in my judgment a dose of morphia producing such effects as were observed in the deceased must necessarily tend to hasten death. Death was not the result of a narcotic poison administered, but by the appearances observed I am equally positive that death did not arise from the state of the heart. The statements of the medical and other witnesses as to the condition of the deceased, with the result of the post-mortem examination, and my own analysis, justify me in coming to this conclusion. The high temperature of the body negatives that idea, but something, such as prussic acid, and which now could not be detected, would cause death. Death must have been accelerated by the administration of morphia, but the actual cause of death was the administration of some other volatile noxious substance which could not be detected after so long a period."

Dr. Buzzard was next examined. He considered it highly probable that the state of the deceased when seen by Mr. Walker was attributable to a dose of morphia, and the death to volatile poison, not to be detected post-mortem. Mr. Walker was recalled, and said that, having heard the result of the analysis, it appeared to him that the state of his patient on the Saturday was the result of morphia. By Lord Henley: "I am not at all aware that the deceased was in the habit of taking morphia." After some formal evidence as to handwriting and matters of no real importance to the issue, the coroner having addressed the jury, they retired for a short time, and then found that the death of the deceased had been caused by the administration of poison, but by whom administered there was not, in their opinion, sufficient evidence to say. Mr. Becke then applied for a warrant to take Mrs. Waters before the magistrates, and Lord Henley granted one for the apprehension of Mrs. Waters on the charge of administering poison to the deceased, with the intent to kill and murder her. After the verdict had been delivered and the warrant had been made out for the apprehension of Mrs. Waters, who was in another apartment, she became very ill, and was apparently seized with an epileptic attack. She retained sensibility for some time, and two medical men were in attendance upon her, as well as Professor Rogers. About half an hour after the warrant had been issued, however, she died. This tragical end to the proceedings caused a profound sensation. A post-mortem examination of the body of Mrs. Waters proved that she died from the effects of strychnine. We think the medical evidence in this case is exceedingly unsatisfactory, and such as did not warrant the conclusion at which the jury arrived. On what grounds did Dr. Rogers assume that some volatile poison had been administered to the deceased? There was certainly no evidence of its having been administered. The medical witness always treads on dangerous ground when he assumes anything which is not fortified by unequivocal facts. It is always far better to keep to the strictest rules of evidence, not only in justice to a suspected person, but for the sake of justice itself. We regret to have to make these observations with respect to a gentleman justly holding a high position in the profession. If the evidence be correctly reported, we contend that there is no sufficient legal proof that Mrs. Gulliver died from the effects of poison at all. Whatever suspicions the collateral circumstances may have given rise to, the value of them should have been left to the jury. The whole story is one of a most melancholy kind. On re-perusing the evidence as published in the newspapers, we cannot help thinking there must have been important omissions somewhere. However this may be, the assumption that an additional poison to morphia had been taken is at variance with the well-known laws of medical jurisprudence. It is impossible to conceive that Dr. Rogers, an able and experienced analyst, should have arrived at the opinions he expressed without reasons not contained in the reports above alluded to.

Drs. Hare and Chorley have been elected Consulting Physicians, and Mr. Richard Davy Consulting Surgeon, to the St. Marylebone Dispensary, in consideration of their past long and faithful services to the institution.

We hear that Mr. Gant is likely to be a candidate for the vacant post of junior Assistant-Surgeon to Westminster Hospital.

THE WAR ON THE GOLD COAST.

ALTHOUGH it has been denied that the Portuguese authorities have refused to allow an English sanitarium to be established at Madeira, the proceedings set on foot at Lisbon, to ascertain whether the demands of this country can be safely acceded to, may be looked upon as virtually prohibitory. Before the Commission, which has been appointed to proceed to the island at the end of the present month for the purpose of collecting evidence, can report to the Council of Public Health at Lisbon, and before a definite decision can be arrived at by the Minister of the Interior there, it is more than probable that the campaign will have concluded, and the last of our troops returned to these shores. Under these circumstances it only remains to make as much use as possible of the islands of Ascension and St. Helena, to which places it appears all serious cases of fever occurring on the Coast are now expeditiously invalided.

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All accounts received from the scene of operations agree in stating that the grand start for Coomassie would take place at the commencement of the new year, but no part of the force was to be landed until such time as the preparations were complete for sending the whole forward without unnecessary delay. Eight days, it is estimated, will place the whole of the troops on the banks of the Prah, which would give about ten miles to be covered on each consecutive day; but, taking into consideration the exceptional nature of the country to be traversed, this would appear to be too short a period to allow for the first half of the journey. So far, however, the organisation of transit should be nearly complete, and few difficulties need be anticipated with such stations as Dunquah, Mansu, and Faisoo already thoroughly established on the road. The real work will have to commence as soon as the Prah is crossed, and from that point by no means the lighest part of the undertaking will be the supervision of the native bearers. This portion of our allies, who could never be trusted in their own country, will be liable at any moment to stampede when traversing the dreaded Ashantee territory; and it strikes us that nothing short of strict orders to the sailors who will be left to guard the pontoon-bridge across the river, to refuse a return passage to any native not on duty, will suffice to retain a sufficient number of bearers with the advancing force.

At Cape Coast Castle every preparation has been completed for the reception of the sick and wounded as they are sent down from the front, and before they can be conveyed on board the hospital ships in the offing; tents have been erected upon Connor's Hill, and the church has been converted into a temporary hospital. Deputy Surgeon-General Home, V.C., the Principal Medical Officer on the Gold Coast, is highly spoken of on all hands for the indefatigable manner in which he carries out the duties of his position; not content with issuing orders only, he makes a point of personally seeing to their execution. To great administrative ability, in Mr. Home's case, is superadded a happy knack of insuring the carrying out of his plans, and he has thoroughly earned the first step of Deputy Surgeon-General, which has been conferred upon him since he left England, by the exertions he has made to anticipate and meet all the medical wants of the present expedition. When it is remembered that Mr. Home proceeded to Cape Coast Castle in the early portion of last year, since which time he has been incessantly employed in the work of organising hospitals, attending to the sick, and co-operating with Sir Garnet Wolseley, we think it will be at once conceded that he has fairly earned his present promotion, and any further rewards which the heads of his department may see fit to confer upon him.

We believe that we are correct in stating that it has been decided not to send out reinforcements to the three regiments already on the spot. Considering the contemplated shortness of the campaign, and Sir Garnet's thorough knowledge of his actual requirements, this would seem to be a wise determination, as no more than the actual number of men requisite for the undertaking in hand should be subjected to the influences of such a malarious climate. If, however, the rumour be true that the King of Dahomey has really joined his fortunes to those of the King of Ashantee, it may eventually be deemed prudent to strengthen the little band under Sir Garnet Wolseley's orders; but as to the expediency of this measure the latter officer will, doubtless, promptly advise the Government.

"WHEN AND HOW SHOULD MERCURY BE USED FOR THE CURE OF SYPHILIS?"

At the last meeting of the Hunterian Society, Mr. Jonathan Hutchinson read a most interesting paper entitled—"When and How should Mercury be used for the Cure of Syphilis," a fuller account of which, as well as of the discussion which thereupon followed, we elsewhere give. In it he stated that increasing experience had caused him to modify views which he had formerly held and expressed as to the value of mercury in the treatment of this disease. Formerly he was inclined to think that perhaps the efficacy of mercury had been somewhat over-rated. He held that in many cases in which improvement was due to the natural course of the malady, and in which mercury had been given, the amelioration had been attributed solely to the mercury, and no account taken of the probability of the disease mending by wearing itself out. Subsequent experience had taught him that, while fully acknowledging the occasional spontaneous cure of the disease, mercury was not only an extremely valuable drug, but really *the* antidote for syphilis. He deprecated the habit of giving the drug too sparingly and in a cowardly fashion, and said that, if begun early and persevered in, it not only mitigated the secondary symptoms, but not unfrequently prevented them altogether. He stated his belief that a chancre does not increase after the mercury has begun its action on the system; and even if its effects were not at once evident, this was no proof that the medicine was no antidote to the disease. He said that rupia belonged to the secondary stage of the malady, and that we should be guided in our treatment more by the stage of the disease than by its manifestations. Even in the later stages he believed mercury in small doses to be superior to iodide of potassium; in support of which statement several cases were quoted. In response to the objection that mercury aggravates the character of the disease, he appealed to the fact that many cases supposed to be truly syphilitic are cured by the administration of the drug. Iodide of potassium, the author thought, was not an antidote, but rather acted by keeping inflammatory mischief in check. Phagedæna, he considered, was a local process, and must be dealt with locally as an accidental complication; and mercury might be given if the local treatment of the phagedæna were attended to. He had not, however, yet put this method into practice. The paper concluded with some categorical statements as to mercury being the antidote for syphilis.

Dr. Drysdale, in speaking to the paper, appeared willing to confess that he was not so determined an opponent of mercury as formerly; and as time and greater experience had had their effect on Mr. Hutchinson, so in like manner was he constrained to admit on the other side that everything that was said against mercury was not true. In the main, however, he adhered to his original text, and quoted the statistics of Professor Bœck, of Christiania, in support of his view. He said that Dr. Fournier, of Paris, advocated the administration of mercury for very long periods; and this, in his opinion, was a very serious matter.

Dr. Ziemssen, of Aachen, said that the practitioners of that town had considerable experience in the treatment of the disease, as Aachen was the great resort of syphilitic patients from the North of Europe. They of course relied on mercury, and not on the sulphurous waters; and he had remarked that the worst and most intractable cases were those in which mercury had either not been given or had been administered very sparingly. His experience was that mercury judiciously given was a most valuable remedy.

Mr. De Méric concurred with much that had fallen from Mr. Hutchinson, but demurred to the term "antidote," as he thought that the general acceptation of that term implied something more rapid and certain than that which experience taught us was the case with mercury. He combated ably the notions of the anti-mercurialists, and caused much merriment by stating that the mercuriophobia had taken such a hold on the public mind that it was thought necessary to recommend a powder for cleansing plate by advertising that it did not contain mercury.

Mr. Berkeley Hill said his experience confirmed that of the

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other speakers who were favourable to the use of mercury; and he objected to the validity of arguments derived from Dr. Boeck's statistics, as many who had received mercurial treatment were placed in unfavourable hygienic conditions, and much of the evil might fairly be attributed to this rather than to the mercury. He also advocated mercurial inunctions and vapour-baths.

After Mr. Hutchinson had replied, the meeting adjourned.

We only give here a brief outline of the substance of the paper and of the discussion which followed; but the whole subject is of too much interest to be passed thus lightly. We shall therefore return to it next week.

POISONED PILLS.

On Friday, the 2nd, Francis Shillitoe, Esq., Coroner for Hitchin, held an adjourned inquest touching the death of a young man, aged 22, who died under suspicious circumstances after taking some quack pills. The stomach, spleen, a bottle of cough mixture, and the remainder of the pills (of which the deceased had taken four or five) were forwarded by Mr. Shillitoe, surgeon, to Dr. George Harley for analysis, immediately after the man's death. From the *Hertfordshire Express* of last Saturday, the 10th instant, it appears that the quack, who is well known in the district as "Professor" Morris, suddenly left the neighbourhood shortly after the result of the first inquest was made known. The evidence given by Dr. George Harley, F.R.S., was that he, in conjunction with Mr. R. W. Atkinson, B.Sc., assistant in the chemical laboratory of University College, had detected arsenic in the stomach and its contents, in the substance of the spleen, and also in the pills, but none in the cough mixture. Further, the evidence of the surgeon who made the post-mortem went to prove that while the condition of the digestive canal was such as strongly to indicate the presence of an irritant mineral poison, the brain, lungs, heart, liver, and kidneys were quite healthy. After hearing the medical evidence, Dr. George Harley, in reply to the coroner, stated that he believed the deceased had died from arsenical poisoning. In answer to several questions from the jurymen, the analyst stated that the pills were very badly made, some of them weighing only three and a half, while others weighed four and three-quarters grains. That the poison, when introduced by the skin or by a wound, possessed the remarkable property of affecting the digestive canal in precisely the same manner as it did when introduced into the stomach. In illustration of this, Dr. George Harley exhibited a water-colour drawing of a cat's digestive canal, highly congested, where five grains of arsenic had been introduced into a wound between the animal's shoulders. Several other drawings showing the post-mortem appearances in different stages of arsenical poisoning were exhibited; also specimens of metallic arsenic and arsenious acid obtained from the stomach, spleen, and pills. After a short deliberation the jury returned a verdict of manslaughter against the quack.

PROSECUTIONS UNDER THE ADULTERATION ACT.

Many complaints having been made to the Paddington Vestry as to their dilatory action in cases brought before them under the Adulteration Act, the Sanitary Committee have given further consideration to the working of the Act, and at the suggestion of the Committee the Vestry has adopted the following alteration in their regulation of 1873:—"That in cases under Section 6 of the Adulteration of Food Act, 1872, the certificates of the analyst be laid before this Committee, and, unless the Committee shall otherwise order, the inspector appointed under such Act shall take proceedings under such section whenever such certificates state that articles of food or drink are adulterated." This to some extent simplifies the matter, and we have no doubt will be found to work efficiently.

CLINICAL SOCIETY OF LONDON.

At the meeting of the Clinical Society on Friday, January 9, the annual report was read and adopted. The increasing number of Fellows and the financial condition of the Society are very encouraging. The following is the list of office-bearers elected for 1874. The gentlemen whose names are marked with an asterisk (*) did not hold the same office during the preceding year:—*President:* Prescott G. Hewett. *Vice-Presidents:* *George Johnson, M.D., F.R.S.; Alexander P. Stewart, M.D.; Hermann Weber, M.D.; George W. Callender, F.R.S.; J. Cooper Forster; Timothy Holmes. *Treasurer:* E. Headlam Greenhow, M.D., F.R.S. *Council:* James Andrew, M.D.; Thomas Buzzard, M.D.; *William Cayley, M.D.; *William Selby Church, M.D.; William Cholmeley, M.D.; Edward Clapton, M.D.; *William Howship Dickinson, M.D.; Alfred B. Duffin, M.D.; Alfred Meadows, M.D.; *Walter Moxon, M.D.; *R. Douglas Powell, M.D.; Henry Arnott; Richard Barwell; R. Brudenell Carter; *John Couper; John C. Langmore, M.B.; *George Lawson; *Arthur Trehern Norton; Thomas W. Nunn; Septimus W. Sibley; Alfred Willett. *Honorary Secretaries:* Reginald Southey, M.D.; *Thomas Pickering Pick. *Trustees:* E. Headlam Greenhow, M.D., F.R.S.; J. Burdon-Sanderson, M.D., F.R.S.; George W. Callender, F.R.S. It will be observed that the number of Vice-Presidents is reduced from eight to six.

INSANITARY STATE OF CHESTERFIELD.

Dr. Thorne Thorne, of the Local Board Medical Department, attended a special meeting of the Chesterfield Town Council last week on the subject of the sanitary condition of the borough. Dr. Thorne addressed the meeting, and said he had recently been engaged in making inquiries into the sanitary condition of the registration district of Chesterfield, and in order to complete his inspection he had also inquired into the sanitary condition of the borough. He believed the corporation had spent a good deal of money in connexion with sewage and drainage, and he pointed out in a detailed manner the works necessary to be done, and concluded a very able and practical address by stating that the houses of the poor people in the majority of cases were most unfit for them. He did not think they could find a town in the kingdom to equal Chesterfield in regard to lodging-houses. If he were to describe all the conditions which he found prevailed in defiance of every consideration of both decency and health, it would necessite the use of language better avoided.

ST. PANCRAS AGAIN!

The St. Pancras Board of Guardians at their last meeting had laid before them a letter from the Local Government Board, inquiring whether they had seen occasion to reconsider their resolution respecting the claim made upon them by Dr. Walter Smith for services rendered during the absence of Dr. Purcell, one of the district medical officers, and would now pay Dr. Smith the amount he claimed. After some discussion it was resolved—"That the Board saw no reason to reconsider their former decision with regard to Dr. Smith's claim, but were willing to pay the amount claimed—£26 5s.—if the Local Government Board so advised." This resolution was ordered to be forwarded to the Board.

ARMY MEDICAL OFFICERS.

Our contemporary the *Army and Navy Gazette* says—"Attention deserves to be drawn to a great improvement in regard to the position of principal medical officers of districts. For the first time their names are inserted among those of the staff of their districts, although separate from the general staff." This we think is a decided change for the better, for hitherto the circumstance of their names not appearing has led to considerable unpleasantness and inconvenience.

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KING AND QUEEN'S COLLEGE OF PHYSICIANS IN IRELAND.

THIS ancient and learned body has lately been subjected to an attack by the friends of the "women-doctors"—an attack which, we are glad to say, has been successfully repulsed as regards the licence to practise medicine. A lady of undoubted attainments—an "M.D." of one of the foremost Continental universities, that of Zurich—made application to be admitted to examination for the licence. Her claims were laid, we have reason to believe, before an unusually full meeting of the College, when the Fellows decided by a very large majority that it was inexpedient to admit women to examination. An opportunity of pronouncing an opinion on the general question of the admission of women was thus afforded, and was taken advantage of. With regard to the case of another lady, who addressed some queries as to the power of the College to examine women for a licence in midwifery, the result is stated to have been less satisfactory. It was held that, according to the wording of the charter, the College had the power to examine women, and to confer upon them a qualification or licence to practise midwifery. The worst of it is that this qualification can be registered; and there is but too good reason to anticipate that, should it be granted to women, it may be used by them as a handle for securing a place on the Medical Register.

THE BLANE MEDALS.

THE award of the gold medals founded by the late Sir Gilbert Blane has just been made, in accordance with the bequest of the founder, by Dr. Burrows, as President of the Royal College of Physicians; Mr. T. Blizard Curling, as President of the Royal College of Surgeons; and Sir Alexander Armstrong, as Director-General of the Medical Department of the Royal Navy, in favour of Staff-Surgeon John Dennis Macdonald, F.R.S., M.D., M.R.C.S. Eng., Professor of Naval Hygiene at Netley, Southampton, for his journal of the ship *Lord Warden;* and to Staff-Surgeon Thomas Colan, M.D., M.R.C.S. Eng., for his journal of the *Rattlesnake.* On reference to the "Calendar of the Royal College of Surgeons," it will be seen that the founder left the sum of £300 to that institution for the above purpose, the interest of which appears as amounting to £8 17s. The medal, which is a very handsome one by Wyon, has on one side a fine likeness of Blane in bold relief, and on the other a wounded sailor falling into the arms of a comrade, with the name of the recipient engraved on the legend.

FEMALE GYMNASTICS.

IN a circular issued by the Berlin Medical Society it is stated that it is the deliberate conviction of its members that systematic instruction in gymnastics for young girls of all classes of society is desirable, "even more so for girls than for boys, since the physical condition of the female is calculated to affect in the highest degree the constitution of future generations." This example we hope will be followed generally in this country. It is a matter of the highest importance, and really, as far as the well-being of womankind is concerned, as essential as intellectual education.

ADULTERATION OF TEA.

A DETAILED account of a series of analyses of green teas by Dr. Hassall appears in *Food, Water, and Air* for the present month. It is somewhat alarming to find that of eighteen samples of green teas examined, the whole were adulterated; and that all were artificially coloured with Prussian blue, turmeric, and a white mineral substance (usually a silicate), or with Prussian blue and the white powder only. The great majority of the samples also contained *lie-tea.* Iron was found in various proportions, and that not as iron filings, but as the magnetic oxide. No copper was found.

THE OUT-PATIENT SYSTEM.

AT a meeting of the Council of the Charity Organisation Society on Monday, the secretary stated he had received the report of the sub-committee on out-patients appointed at the Westminster Hospital. The report recommended—1. That out-patients' letters should be discontinued. 2. That patients should be excluded who could either afford to pay for advice and medicines, or were in receipt of poor-law relief; and 3. That a registrar of out-patients should be appointed to admit applicants, under the direction of the secretary. It may be mentioned that this sub-committee was appointed in consequence of a memorial from the assistant-physicians, which stated that the number of out-patients had become so large that it was quite impossible to give separate study to individual cases of illness, so that in the great majority of instances the advice given was very imperfect and the medicine very useless.

MEDICAL APPLIANCES FOR THE GOLD COAST.

SIX pairs of medical field-panniers, to be carried by a mule, have just been shipped on board the *Nebraska* for conveyance to Sir Garnet Wolseley. These panniers have been constructed and fitted in accordance with the experience of Staff-Surgeon Fitzgerald, gained with the French and German ambulances in the late war. They contain almost every conceivable resource for supplying the surgical wants of an army in the field. The six pairs now sent are the first ever ordered for active service.

THE ROYAL VENTNOR HOSPITAL FOR CONSUMPTION.

THE annual meeting of the Royal National Hospital for Consumption at Ventnor was held on Tuesday. The medical report of Dr. Hassall showed that the health of the patients at the Hospital had been satisfactory, and quite realised all that could have been looked for. The deaths were remarkably few. Of 234 men and women admitted into the Hospital, ten only died during the year. The great majority left the Hospital in greatly improved health.

CLINICAL SOCIETY.

WE understand that Mr. Prescott Hewett, who will deliver an inaugural address to the meeting of the Clinical Society on Friday, January 23, intends to select the subject of "Pyæmia" for his theme, and will invite a discussion thereon, which will probably attach much interest to that evening's proceedings.

PATHOLOGICAL SOCIETY.

WE understand that Mr. Campbell de Morgan, F.R.S., will open a discussion on March 2, at the Pathological Society, "On the Nature of Cancer." The Society may be congratulated upon the subject and the author of its choice; and we do not doubt that Mr. De Morgan's paper will excite as important a discussion as Dr. W. Fox's paper, "On the Anatomical Relations of Pulmonary Phthisis to Tubercle of the Lung," did last year.

THE MEDICAL MICROSCOPIC SOCIETY.

THE following gentlemen have been nominated as officers of the above Society for the ensuing year:—*President:* Mr. Jabez Hogg. *Vice-Presidents:* Drs. Lawson, Payne, and Rutherford, and Mr. Kesteven. *Treasurer:* Mr. T. Charters White. *Honorary Secretaries:* Messrs. C. H. Golding Bird and Mr. J. D. Groves. The Society is now in a flourishing state, and several new members have recently been elected.

A PECULIAR DISEASE OF THE SKIN IN CHILDREN.

UFFELMAN (*Archiv für Klin.-Medicin* x., s. 454) describes the characteristics of a peculiar disease of the skin, occurring in children from four years and a half to twelve years and three-quarters, of which he has in ten years observed fourteen cases.

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Eleven were girls, and three boys. All showed signs of scrofulosis, and were the children of scrofulous parents, but were free from syphilis. The disease manifests itself by elevations resembling chilblains on the legs below the knee, and to some extent also on the forearms. These are somewhat tender on pressure, but otherwise not painful nor itchy. There is slight swelling of the skin around them, but no œdema redness, nor local elevation of temperature. They are not movable under the skin; do not desquamate; get well spontaneously; and can be felt for eight days or more after they cease to be visible. Although the temperature of the body never rises more than one degree centigrade, yet the urine is dark and the appetite very much diminished. The children are very pale and languid. Three of the patients died some years afterwards of tuberculosis.

CLINICAL TEACHING AT BIRMINGHAM.

CONSIDERABLE dissatisfaction prevails among the students at the Queen's Hospital, Birmingham, at a resolution of the honorary medical staff not to allow the resident medical and surgical officers to continue to give clinical instruction, at their evening visits to the wards, to those students who are preparing to pass examinations, as they have been wont to do for some years past. The students have petitioned the honorary staff to withdraw the veto, but we believe without success.

MORTALITY OF LONDON.

IN the metropolis last week 1615 deaths were registered, which were 133 below the average. Of these, 93 were from measles, showing a decline during the last four weeks from 168. The annual death-rate from all causes, which in the three preceding weeks had been equal to 38, 24, and 29 per 1000, declined last week to 25.

FROM ABROAD.—PROPOSED NEW TARIFF OF FEES—PARIS REGISTRATION RETURNS FOR 1872.

M. GARNIER, a leading practitioner at Lyons, has just added another to the numerous proposals that have been made from time to time for the augmentation and regulation of fees. His tariff is attempted to be adjusted by what he calls an imitation of "*nos confrères d'outre Manche* [though to what he alludes among ourselves it is rather difficult to conjecture], not basing the charges upon the incomes of individuals, which we cannot know, but upon the rents they pay." On this basis he thinks there may be established three classes of patients in Lyons, viz.:—1. The rich, paying from 1500 fr. to 3000 fr. and upwards. 2. Those in easy circumstances, paying from 600 fr. to 1500 fr.; and the working classes, paying from 200 fr. to 600 fr. Below these there are still two classes of persons—4. Those who can only pay by the mutual assistance or club system; and 5. Those who have to depend upon public or private charity. Having thus classified the patients, he proceeds to determine the sums they shall pay, which require, as he truly says, to be considerably increased upon present payments in order to adjust them to the augmented price of every commodity.

If the Lyonese practitioners succeed in persuading their public to pay the fees proposed, and which are designed for ordinary practice, they will be in an enviable condition as compared with those of the "*outre-Manche*," who are held up as so worthy of imitation.

These are some of them:—A visit or a consultation at home, 20 fr. to 10 fr. for the first class, 10 fr. to 5 fr. for the second, and 5 fr. to 3 fr. for the third. A visit between 10 p.m. and 7 a.m., or an urgent visit paid at a fixed hour, double the foregoing sums. Extra sums of 6 fr., 5 fr., or 3 fr. to be paid when the visit is beyond two kilometres within the town and for every kilometre beyond this distance. Ordinary accouchements are to be charged from 200 fr. to 100 fr. for the first class, 100 fr. to 50 fr. for the second, and 50 fr. to 30 fr. for the third; and when any obstetrical operation has to be performed, there must be added to the above from 300 fr. to 30 fr., according to the class. Vaccination is to be paid for at the rate (besides the visit) of 20 fr. to 10 fr. for the first class, 10 fr. to 5 fr. for the second, and 5 fr. to 3 fr. for the third. Minor surgery from 40 fr. to 5 fr., according to the class; and reduction of a hernia or of a dislocation from 100 fr. to 10 fr. Fractures are to be charged for at the rate of from 200 fr. to 30 fr.; and major surgery, such as amputation, excision, etc., from 400 fr. to 100 fr. The price of the visits is to be charged extra in all the above cases, except in accouchements, when the three first visits are to be included in the charge. When there is a consultation of several practitioners, each is to receive from 50 fr. to 25 fr. for the first consultation, and half that sum for subsequent ones. Detention of a practitioner at the bedside of the patient is to be paid for (except in accouchements) at from 30 fr. to 5 fr. per hour. Certificates of illness or injury, of vaccination, for life assurance, and of death, are to be charged from 25 fr. to 3 fr., according to the class, the patients furnishing the stamped paper when certificates are required to be written on this.

It will be admitted, we think, that the public of Lyons will be treating the profession liberally if they agree to pay the above charges, especially when the *pharmacien's* bill has to be defrayed likewise, and, for the same reasons, at an increased cost. We fear, however, that there is little chance of this being the case, for all M. Garnier has to rely upon for the carrying out of his projected reform is the association of practitioners to that end. All know how impracticable this is in a large city in the face of dissentients and new competitors; and we think that there, as elsewhere, the change must be sought for in other directions. The general understanding amongst the profession should be that present charges are unjustly low, and should be raised; but this will have to be effected by action on the part of the seniors and the successful, rather than by the laying down any rule binding on all alike, and not elastic enough to adapt itself sufficiently to individual circumstances, to the actual state of which the amount of rent paid, or proposed to be paid, is but a partial guide.

From the summary of the *Bulletin Municipal* for 1872, just published by the Préfet of the Seine, it appears that in that year much was done to repair the losses which took place during the one which preceded it. Thus, while in 1871 the marriages were only 12,928, they increased to 21,373 in 1872; the births rose from 47,410 to 56,894; and the mortality diminished from 86,760 to 39,650—*i.e.*, nearly 55 per cent.

Marriages.—In a population of 1,851,792 there took place 21,373 marriages—*i.e.*, one marriage for 87 inhabitants, or 1·15 per cent.,—the mean proportion for entire France being only 0·80 per cent. But this elevated figure for Paris in 1872 is quite exceptional, arising doubtless in great measure from the accomplishment of many marriages deferred from the troubled times. These marriages were contracted between bachelors and spinsters at the rate of 78·8 per cent., between bachelors and widows 6·9 per cent., between widowers and spinsters 9·5 per cent., and between widows and widowers 4·8 per cent. In ordinary times, the marriages between bachelors and spinsters exceed 82 per cent., and the mixed marriages in which the widowed take part are only 18 per cent. In 1872 these latter have exceeded 21 per cent.—the increase of widows married being 2·8, and of widowers 1·8 per cent. Of the 42,746 persons married in 1872, there were 1979 (491 men and 1488 women) who could not sign their marriage registers; that is, in every hundred married persons there were 2·30 men and 6·96 women, or, for the two sexes, 4·63 individuals who were absolutely illiterate. In 1865 these numbers were respectively 3·60, 10·05, and 6·03; so that in this particular the Parisians have made sensible progress. The number of

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what are termed consanguineous marriages amounted to 409—viz., 13 between uncles and nieces, 110 between brothers-in-law and sisters-in-law, and 286 between cousin-germans or their issue—being 1·87 per cent. of the entire marriages. In 1865 the proportion was 1·65 per cent.

Births.—There were born in Paris during 1872, 41,476 (21,269 male and 20,207 female) legitimate infants, and 15,418 (7773 male and 7645 female) illegitimate infants, making a general total of 56,894 (29,042 male and 27,852 female) infants born living. Comparing these births with the population, it is found that there was 1 birth for 32·5 inhabitants, or 30·7 per cent. This proportion is one of the smallest yet recorded, so that, in spite of the considerable absolute increase of births over the former year, this does not bear its normal relation to the actual population. Of every 100 births, 27 children were illegitimate; but, large as this proportion is, it still indicates a considerable decrease in the number of natural infants. From 1806 to 1865 the proportion descended from 38 to 29 per cent., and now it has descended to 27. The question arises whether this diminution is to be attributed to the greater prevalence of the practice of abortion or to the measures which have been adopted for facilitating marriage among the lowest classes; but the statistics attainable can give no reply to this. Of the 56,894 registered infants, 51,089 were born at the houses of their parents and 5805 in the hospitals—*i.e.*, of every 9 infants born in Paris, 1 is born in a hospital,—the proportion being only 1 in 35·4 for the legitimate, and 1 in 3·3 for the illegitimate. Or it may be stated thus: that the number of natural infants delivered at home is only 21 per cent., as compared with 80 per cent. delivered in the hospitals. Under the first condition there are 4 legitimate infants for 1 natural, and in the other 5 natural infants for 1 legitimate. In 1865 there were 13 per cent. of births in hospital; and it is to be hoped that the descent of the number to the present 10 per cent. is an indication of the spread of greater comfort and of public morality. Of the 15,418 illegitimate infants, only 3788 were reclaimed by their parents. For every child reclaimed there are three abandoned for ever to the Assistance Publique; and with rare exceptions all those reclaimed have been born at the homes of their parents, while more than a half of those abandoned first saw the light in hospitals.

Infants born Dead.—In 1872 there were 4443 infants who were born dead or died within a few instants; and in 100 conceptions taking place in Paris, there are 7·24 infants born dead,—a proportion much higher than that which prevails in France in general, where it varies from 4 to 4·5 per cent. Still, during late years there has been improvement in this matter. It is the male infant that suffers oftenest in these premature deaths, the proportion being 7·63 of males to 6·84 females in 100 conceptions. Great differences are found on comparing legitimate and illegitimate births, there being 6·66 per 100 conceptions, against 8·77. In France in general the difference is still greater, as in the same number of conceptions there are just twice as many natural infants born dead as legitimate. Again, in Paris the infants born at home furnish 7·10 per cent. born dead, and those born in hospital 9·25 per cent. It is, too, especially in legitimate infants born in hospital that the proportion is highest—viz., 11·75 per cent., while for natural infants so born it is but 7·60,—showing the extremity of wretchedness married women are reduced to when they are under the necessity of repairing to a hospital.

Deaths.—During 1872 the deaths registered in Paris amounted to 39,650, being a mortality of 2·14 per cent. So favourable a result has never before been attained, even in the most prosperous years—being, indeed, some compensation for the disasters of the two preceding years. This, however, is only an exemplification of a well-known law, that after excessive mortality a reaction soon occurs, due indeed to the fact that epidemics and the various other scourges especially carry off the weak and miserable, only anticipating the time of their extinction. Of these deaths, 46 per cent. took place among persons born in Paris, 53 per cent. among provincials or foreigners, and 1 per cent. among those of unknown origin. As the population consists of 36 per cent. of Parisians properly so called, and 63 per cent. of provincials and strangers, the mortality is larger for the Parisians. The relative immunity of other inhabitants is explained by the adult element being largely in excess, as compared with the fixed population. Of the 39,650 deaths, 29,503 (74 per cent.) took place at home, and 9897 (25 per cent.) in the hospitals, 45 persons also dying in prisons, and 205 being exposed at the Morgue. The different arrondissements were influenced in their mortality by the age of the inhabitants, the density of the population, the altitude of the localities, and the amount of wealth. The influence of this last is seen by comparing the mortality of the arrondissements de l'Opéra and d'Elysée with that of the Gobelins and l'Observatoire, where one person in six is in the reception of charity. The mortality of the latter is double that of the former; and the arrondissements in which the working-class population chiefly prevails, offers a very similar disparity.

THE WEBB FUND.

A MEETING was held at 11, New Burlington-street on Wednesday, the 14th inst., with a view to the raising of funds on behalf of the family of Dr. Webb, editor of the *Medical Times and Gazette*, whose sudden and unexpected death was recently announced. There were present—Prescott Hewett, Esq., in the chair; Drs. Fayrer, Cholmeley, Symes Thompson, Sherwood Stocker, Lavies, and Silver; Messrs. Augustus Churchill, Hart, Clover, Tweedy (on behalf of Dr. Wakley), H. Lampson, and Gore.

The chair having been taken, the following brief statement was made by Dr. CHOLMELEY as to the state of Dr. Webb's affairs:—Dr. F. C. Webb, whose sudden death so lately occurred at the age of forty-seven, died just when he had achieved such professional success as would in a few years have enabled him to provide for his family. But, as it is, his widow and ten children are left with an income of only £120 a year, derived from settled property, the insurance on the father's life being required to pay off some still remaining liabilities incurred during the years of struggle and anxiety before success came. The children vary in age from twenty-one to four years—the eldest son being just nineteen, and not yet in a position to earn his own living. Under these circumstances, many of the leaders of the medical profession and other friends are willing to form a committee to raise a fund which will be vested in the names of trustees for the benefit of the family.

It was then moved by Mr. E. HART, seconded by Dr. FAYRER, and carried unanimously, that a committee be formed for raising funds on behalf of the family of the late Dr. Webb, and that all present be included in the committee.

Subsequently Dr. CHOLMELEY read the following list of gentlemen who signified their regret at being unable to be present at this preliminary meeting, and promised their support in every way to the proposed end of the meeting. These too were added to the committee, which was further empowered to add further to their number should they see fit to do so:—

Mr. E. Bradford.	Sir W. Jenner, Bart.
Dr. Peyton Blakiston.	Dr. Lavies.
Dr. Burrows.	Dr. Leared.
Dr. A. Clark.	Dr. Murchison.
Mr. J. F. Clarke.	Sir James Paget, Bart.
M. J. T. Clover.	Sir W. Palliser.
Mr. Curling.	Dr. Quain.
Dr. J. Fayrer.	Dr. D. Randall.
Mr. J. Gay.	Dr. Stocker.
Mr. H. S. Giffard, Q.C.	Mr. Underwood.
Mr. H. Gore.	Dr. J. Waring.
Sir W. W. Gull, Bart.	Mr. Spencer Wells.
Mr. Prescott Hewett.	Dr. C. J. B. Williams.
Mr. C. O. Humphreys.	

It was next proposed by Dr. STOCKER, and seconded by Dr.

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Symes Thompson, that Mr. Augustus Churchill be appointed treasurer, and Drs. Cholmeley and Silver secretaries to the fund in question. This was carried unanimously, and these three gentlemen, together with Dr. Fayrer, Dr. Symes Thompson, Dr. Lavies, and Mr. Lampson, were appointed a sub-committee for the conduct of business.

Dr. Cholmeley then read the following list of contributions already promised:—

	£	s.	d.
Proprietors of the *Medical Times and Gazette*... ...	50	0	0
Proprietors of the *Lancet*	25	0	0
Sir Wm. Jenner, Bart....	20	0	0
Dr. Peyton Blakiston ...	20	0	0
Dr. Stocker	20	0	0
Mr. H. Lampson	20	0	0
Sir W. W. Gull	10	10	0
Sir James Paget	10	10	0
D. D.	10	10	0
Dr. Quain	10	10	0
Dr. A. Clark	10	10	0
Mr. George Lawson ...	10	10	0
Mr. Clover...	10	10	0
Dr. Burrows	10	10	0
Mr. Churchill	10	10	0
Mr. P. Hewett...	10	10	0
Dr. J. W. Ogle...	5	5	0
Dr. Richardson	5	5	0
Mr. S. Wells	5	5	0
Mr. E. Saunders	5	5	0
Dr. Fayrer...	5	0	0
Dr. J. Waring	5	0	0
Mr. H. Gore	5	0	0
Mr. J. Warwick	5	0	0
Dr. Leared...	3	3	0
Dr. B. Woodman	2	2	0
Dr. Randall	2	2	0
Dr. Symes Thompson ...	2	2	0
Dr. H. Greenhow	2	2	0
Mr. J. F. Clarke	2	2	0
Mr. T. M. Stone	2	2	0
A Friend	1	1	0
Mr. H. Morris...	1	1	0
Mr. H. Morley...	1	1	0

It was also intimated that all future contributions would be announced in the *Times* and medical journals.

With a vote of thanks to the Chairman the meeting adjourned.

Mr. Augustus Churchill, the Treasuror, has opened an an account with the St. James's-square Branch of the London and Westminster Bank, into which contributions to the "Webb Fund" may be paid either directly or through the Treasurer or Secretaries.

THE HUNTERIAN SOCIETY.

MR. HUTCHINSON ON THE USE OF MERCURY IN SYPHILIS.

The following is an abstract of a paper on "When and How to use Mercury in Syphilis,"(a) by Jonathan Hutchinson, F.R.C.S., Senior Surgeon to the London Hospital; Surgeon to the Moorfields Ophthalmic Hospital, and to the Hospital for Diseases of the Skin, Blackfriars. The author said:—

The object of the paper was not to bring forward any new doctrine, but rather to express his "own opinion, and, if possible, to elicit that of others respecting the employment of an old-established remedy for the treatment of syphilis, which amidst friends and foes, and with somewhat varying reputation, has held its place amongst us for several centuries. I may indeed avow at once that my main wish is to bear an earnest and hearty protest against the lukewarmness and uncertainty which seem to pervade the opinions of a large section of the profession in the present day as regards the usefulness of mercury in syphilis. I do not speak so much of the active opponents of the drug under all conditions, who are few in number and have not as yet exercised any material influence, but refer rather to what I believe almost all who have had opportunities for observation will admit—a wide-spread tendency amongst those who still believe in mercury to employ it too seldom, too late, for too short periods, and altogether in a cowardly and inefficient manner." The present state of opinion, or rather want of opinion, was much to be regretted; it imperils "every year the happiness and health of a large number of individuals, to say nothing of the danger to future generations." The author then discussed the causes leading to the present state of opinion. Amongst these were the abuse of mercury in former times, the fact that the early stages of syphilis admit of spontaneous cure, and the introduction of iodide of potassium. He gave his reasons for not dealing with the literature of the subject, and then passed on to say,—"I presume it may be taken as a fact which no one doubts, that mercury possesses a remarkable power over certain syphilitic manifestations. No one who can trust the evidences of his senses dare disbelieve that mercury can make an indurated chancre melt away, or that it can procure, with wonderful rapidity, the disappearance of many forms of secondary rash. The question under discussion is whether, in accomplishing these feats, it does anything really for the benefit of the subjects of the malady. This doubt, however, does not quite cover all the ground, for, if it were admitted that in some cases it is really and permanently beneficial, it might still be questioned whether in the long run, and taking the average of cases, it does not do more harm than good. Now to discuss, first, the question as to whether a mercurial cure of local symptoms is or is not an advantage to the patient. I will at once express my belief that the drug is a real antidote for the poison; that if it is carefully and fully employed it is capable of procuring the complete extinction of the malady. By an antidote we mean something which not merely conceals, but which counteracts and neutralises. A chemical antidote effects a combination, and produces a harmless compound; a vital or physiological antidote in all probability kills. It is in this sense that I wish to use the term as applicable to mercury in its relation to the living syphilitic virus. The facts which we possess seem to warrant a belief that it really destroys it; that it prevents its breeding in the blood, if that process have not already taken place, and, if it have, cuts short its life in the tissues. 1. If mercury be given when a chancre is just beginning to show specific induration, it almost invariably puts a stop to it." After illustrating this somewhat, the author passed on to—"2. If mercury be given after a chancre has attained its full development, it is more slow in proving its power, but scarcely less sure. No induration will resist it." Apparent resistance is probably due to the fact that the patient is difficult to influence by mercury. No signs of the drug having undergone tissue assimilation become evident. It should not be abandoned, but some other form of administration tried. "3. If mercury be given to a patient who has an undoubted indurated chancre, but in whom, as yet, no other constitutional symptoms are present, there is a fair amount of hope that it will prevent their occurrence." The author quoted his own experience of late years in support of this, and the cases of vaccinal syphilis brought under the notice of the Medical and Chirurgical Society. In reference to the first series, he said the cases taught a most important lesson. "In this instance we began mercurial treatment in eleven individuals during the sixth month after contagion, and within a fortnight of the appearance of the specific induration. All these patients had at the time well-marked chancres, and about half had enlarged glands in the axillæ. So definite was the antidotal value of the remedy, that all the patients got well, and for a considerable period many surgeons who had not seen the chancres doubted the correctness of the diagnosis. Ultimately, however, after the treatment had ceased, about half of them showed some slight but indisputable secondary symptoms. In not a single case, however, was the rash copious or any of the symptoms troublesome; and my belief is that if mercury had been used longer than it was it is not improbable that the cure might have been still more satisfactory. We found it difficult to make patients, who seemed to ail nothing, and who were not aware of the kind of risk they had gone through, continue treatment long enough. It is otherwise with most persons who have had syphilis in the ordinary way, and who usually are willing to persevere for any length of time that may be advised." This series contrasted strongly with the three others brought forward. In all these the symptoms had developed without their nature being suspected, and without being interfered with in any way. "4. In cases in which an indurated chancre is treated by mercury, if constitutional symptoms follow, they will usually be in ratio with the character of the treatment and with the early date at which it was begun." This was discussed more at length. "5. In cases in which no mercury is given, the disease often rises to exceptional severity." This, to some extent the converse of the preceding, was mentioned in order to remark that the cases of unusually severe secondary syphilis he had lately seen had all been, for some reason or other, not treated by mercury. Some of the worst were cases in which the chancre was non-venereal. "6. Another argument in favour of the belief that the relationship between the syphilitic virus and mercury is really that of a poison and its antidote, may be taken from the circumstance that the drug invariably produces some influence. It may not cure, but it always changes." This point having been further discussed, and a summary of the arguments given, the author passed on to some objections which might be alleged; for instance, that mercury delays the symptoms rather than cures. He admitted the delayal, and to this attributed the fact that syphilis was regarded as having stages of uncertain length. If the disease were left without any treatment, the stages would be sufficiently uniform, as might be

(a) Read before the Hunterian Society, January 8, 1874.

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seen in the cases which did come under observation in which no treatment had been adopted. The delay without cure depended on imperfect administration of the antidote. The very rare instances in which the disease flourished in spite of profuse salivation depended probably on the fact that the salivation was premature. "The secret of success is to avoid any interruption of this kind." With regard to the so-called tertiary symptoms, it was said they do not constitute a necessary stage, and are rather to be regarded in the light of sequelæ which may or may not show themselves, and the question of their prevention was a more difficult one. "The question to be answered may be put thus: Is a patient who has been cured by mercury in the early stages more or less likely to suffer from tertiaries than one in whom the disease has been allowed to develope itself without interference? It seems to me hopeless to try to find an answer to it by appealing to statistics, for the fallacies are such that it would be easy to make them tell either way. I shall content myself, then, by appealing first to theory, and secondly to individual experience." The secondary stage is equivalent to the eruptive stage of exanthems. The longer the blood and tissues are allowed to be saturated with the syphilitic virus, the greater the tissue changes which will result. Hence, if mercury shortens the early stages, it ought to diminish the risk of tertiaries. In many of the worst cases of tertiary syphilis no mercury has been given, and such facts are valuable evidence; but the converse cases—in which chancres have been treated by mercury, and no tetiaries, etc., have followed—are of little value, though they have a certain weight. "An elderly member of our own profession, since dead, once said to me during a consultation conference, 'I hope, Mr. Hutchinson, that you believe in mercury. I do, for it cured me! When a young fellow, I had syphilis badly—was covered with it. They wouldn't give me mercury, till, getting very bad, I consulted Sir Astley Cooper, who made me keep my room and be salivated. I was well very quickly, and I have been so ever since, and here I am, at near 70, without ache or pain.' I believe that the number of those who could give similar testimony to the permanent good effects of the drug is very large." The author then quoted instances showing the results of the use of mercury in certain rare cases in which the disease had assumed unusual features, had been protracted to an unusual extent, or had resisted in a remarkable manner other remedies. "In some of these the proof of curative power is very strong indeed." The case of Mr. S. (seen with Mr. Mundie, of Dalston) illustrated several points. He had a very severe attack of secondary syphilis of a rupial character, with ulceration. He had had no mercury, but had had iodide of potassium given him. He had had two previous attacks of syphilis; in each the chancre was believed to be a hard one, and in each he had taken mercury. The iodide was continued for a month, but, as no improvement then resulted, small doses of mercury were given, and the patient rapidly recovered. This case showed that syphilis may so completely pass away under mercurial treatment that the patient not only loses all symptoms, but becomes again susceptible of contagion. This liability forms the best proof of real cure that we have. In the second attack, though bullous and ulcerating, mercury was well borne. Then there was an interval of eight years before the third attack. Lastly, the third attack resisted iodide of potassium. In a second case, a rupial eruption resisted iodide of potassium but yielded quickly to mercury. In a third case, mercurial vapour baths quickly cured a patient whose symptoms had resisted the iodide for nearly three years. The author's opinions had somewhat altered as to the advantage of iodide of potassium and the disadvantages of mercury in ulcerating syphilitic affections. Certain points in connexion with phagedænic chancres, various objections to the use of mercury, the mode of administration, etc., having been discussed, the author summed up with the following conclusions:—That mercury is probably a true vital antidote against the syphilitic virus, and that it is capable of bringing about a real cure. That, in practice, a good many cases are really cured by mercury, the cure being proved by the restoration to good health, and in some cases by renewed susceptibility to contagion. That the probability of cure depends upon the stage of development attained by the disease when the remedy is resorted to, and the perseverance with which it is used. That, in order to secure the antidotal efficacy of mercury against syphilis, it is desirable to introduce a considerable quantity into the system, and to protract its use over a very long time. That ptyalism and other evidences of the physiological action of mercury, so far from being beneficial, are, if possible, to be carefully avoided, since they prevent the sufficiently prolonged use of the remedy. That in cases in which the patient shows an idiosyncrasy peculiarly susceptible to mercury, the indication is to reduce the dose rather than omit the drug. That it is impossible to begin the administration of mercury too soon, and that it should be resorted to without loss of time in all cases in which a chancre shows a tendency to indurate. That many cases of indurated chancre treated early by mercury never show any of the characteristic symptoms of the secondary stage. That in other cases of mercurial cure of the chancre in which yet secondary symptoms do occur, they are usually milder than if allowed to develope without specific treatment. That when mercury does not wholly abrogate the secondary stage, it possesses a remarkable power in delaying it. That delayed outbreaks of secondary syphilis are to be regarded rather as proof that the administration had not been sufficiently persevering than that the remedy was not efficient. That it is probable that the risk of tertiary symptoms is in ratio with the severity and prolonged duration of the secondary stage. That there are some grounds for believing that the tertiary symptoms of syphilis are both less frequent and less severe in those who have been efficiently treated by mercury than in others. That mercury cautiously given does not, in a great majority of instances, do any injury to the general health, and that its local inconveniences may usually be prevented. That the doctrine of the real antidotal character of mercury in respect to syphilis ought to lead to much more prolonged administration of it, with the hope of destroying utterly all lingering germs of the malady. That most collected statistics as to duration of treatment and freedom from relapse are misleading, and worse than useless, because usually the treatment was far too short to be effectual. That it has not yet been proved that there are any special forms of syphilitic disease in which mercury ought to be avoided, although, as a general rule, it is acknowledged that it must be used with more caution in all forms which are attended by ulceration than in others. That iodide of potassium possesses little or no efficacy against either the primary or secondary forms of syphilis. That the efficacy of mercury is often most signally proved in cases which have utterly resisted the action of iodide of potassium. That it does not much matter whether mercury is given by the mouth, by inunction, or by the vapour-bath, provided that, whichever method be selected, care be taken to avoid salivation, purging, etc. That the doses usually resorted to for internal administration are for the most part too large, and thus often necessitate premature discontinuance of the remedy. That, if one method of administration does not succeed satisfactorily, another should be tried; and that in no case of difficulty should the vapour-bath be forgotten.

Mr. De Berdt Hovell thought that mercury was the true remedy for syphilis. It was a mistake to produce ptyalism. The dose should be proportioned to the state of the patient. He had treated an old gentleman aged 70 for a Hunterian chancre by five grains of blue pill every night. At the end of six weeks the chancre was healed. The mercury was continued a few weeks longer. No symptoms whatever followed.

Mr. Kisch asked how long the mercury should be continued?

Dr. Deyedale said that he had not used mercury in any case of syphilis for some years. He mentioned the case of a man and his wife who were both affected with primary and secondary syphilis, and whom he had treated with iodide of potassium. They got quite well, and remained so now, after the lapse of more than a year. He referred to the use of mercury in the treatment of infantile syphilis, and stated that it was well known that cases of this kind usually ended fatally, whether it was given or withheld. He had, however, seen cases do very well without it. He expressed his fears that Mr. Hutchinson's advocacy would do something to restore the reputation of mercury and increase its use, but said that he trusted it was too late in the day for him to accomplish this to any large extent. He alluded to Dr. Fournier's statistics of the treatment of syphilis in Paris by mercury. He thought it necessary to continue its administration for as long a period as two years. He also referred to the statistics published in detail by Professor Bœck, of Christiania, which afforded, he thought, strong testimony against the use of mercury.

Dr. Ziemssen (of Aix-la-Chapelle) expressed a strong belief in the efficacy of mercury in the treatment of syphilis. No one in Aix-la-Chapelle trusted to the sulphur-baths alone; mercury was invariably given. It was necessary to av[illegible]

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giving too large doses. Very bad cases which had been treated by large doses of mercury were sent from Russia and Sweden; nevertheless, they always improved with careful mercurial treatment. He mentioned the case of a lady who had aborted six times. She had loss of voice and ulceration of the larynx. She was in the fifth month of pregnancy. Under treatment she gave birth to a healthy child, and both went on quite well afterwards, and remain well at the present time. He also mentioned another somewhat similar case. He thought that the iodide of potassium was not of the least use in the early stages of syphilis. A gentleman who had extensive ulceration of the nose and other parts, and was in a truly horrible state, and had taken eighteen pounds of iodide of potassium in a series of successive doses without any intermission, was quickly cured by a cautious mercurial treatment.

Mr. De Méric passed a high eulogy on the author's paper, and said it was one of the boldest he had heard of late. It dealt with the subject in an uncompromising manner, and staunchly supported an excellent and practically useful view of the subject. Those who believe in the power and safety of mercury in syphilis might congratulate themselves on being so ably supported. Mr. Hutchinson, with his kindly disposition and well-known good taste, had stated that he gave his opponents credit for the best intentions; but he (Mr. De Méric) could not help saying that he thought those gentlemen did infinite harm. By their constant and unfounded outcry against mercury they had terrified the community—so much so, that when mercury was proposed, patients in some instances expressed much apprehension, and sometimes, much to their detriment, positively refused to make use of the drug. This was much to be regretted. It was now quite common to trade upon those fears; and in advertising various wares—for example, a powder for cleaning plates—great stress was laid upon the powder not containing any mercury. The title of the paper was—"How and When to give Mercury in Syphilis." Mr. De Méric would suggest that it might have stood thus—"When, How, and How Long"; for some surgeons held that we should wait for administering it until secondary symptoms had appeared. He (Mr. De Méric) thought that the primary indurated sore should at once be attacked with the drug, simply as it is the earliest sign that syphilis has invaded the system. Carried away by his deep convictions, Mr. Hutchinson had expressed the belief that mercury is an antidote of syphilis. This was going perhaps a little too far, as hitherto this direct action had not been explained. We were, moreover, too much in the dark as to the actual nature of the virus of syphilis to speak of an undoubted antidote of the poison. That mercury was extremely useful in all stages of syphilis, was not a moment doubted by most of those who for many years had used it. Mr. De Méric had found, like Mr. Hutchinson, that where the disease had given rise to numerous ulcerations the latter were wonderfully controlled by appropriate doses of mercury, where iodide of potassium had failed. The case related by the author of the paper, in which he was called in consultation for a patient at Dalston in a deplorable condition from tertiary ulcerations, was a valuable illustration of the fact. Even in phagedæna, where the health was not too much broken-down, mercury may prove useful. But, of course, in all cases it must be handled with great prudence, keeping in view, as Mr. Hutchinson had said, the undesirableness of salivation. The paper just read was a theme upon which those who had long practised this specially might largely dilate, were not the time allowed for remarks justly limited. The conclusions placed at the end of the paper might usefully be discussed *seriatim*, as several of them would give occasion to a little controversy; but he (Mr. De Méric) could not conclude without paying due praise to the soundness of the opinions expressed in Mr. Hutchinson's production, and the honest and fearless manner in which the author had stated his views.

Mr. Berkeley Hill said that he was a firm believer in the efficacy of mercury in syphilis; but that he could not say that he had hitherto regarded it as an antidote. The disease is often arrested, it may be, altogether, but was, perhaps, not cured. In reference to the question as to how long mercury should be continued, he quite agreed with Fournier that two years was not at all too long a period; at any rate in many cases. He thought that difficult tertiary cases showed, as a rule, that the primary and secondary stages had been neglected. He objected to Professor Bœck's statistics as any evidence against the employment of mercury. The administration of the drug was imperfectly carried out, and under very bad hygienic conditions.

Mr. Lucas said he thought that mercury attacked only the effects of the syphilitic virus, and therefore ought not to be considered as an antidote in the strict sense of the term.

Mr. Hutchinson, in reply, said that he claimed the character of an antidote for mercury, because he held that it did really prevent the evolution of syphilis. If this were proved, there could be no hesitation about the appropriateness of the term. In reference to the precise length of time during which it was advisable to prolong an antidotal course, experience was, as yet, very defective. His own plan had usually been to continue it for one or two months after the complete disappearance of every symptom. He thought it very probable, however, that future experience might show that the risk of relapses was much diminished by yet more prolonged administration. As regards dose, he held that it must be small enough to avoid any risk of ptyalism. Thus, it would vary much with the individual. He usually gave from one to three grains of grey powder three times a day. In allusion to the cases quoted by Dr. Drysdale, he said that they proved nothing more than that the primary and secondary stages of syphilis would pass away spontaneously—a fact which everyone admitted. The real question at issue was, Is the patient's system better rid of the virus when this stage is shortened by the use of mercury or when it is left to nature? For himself, he held strongly it was far better to abridge it. He thanked Mr. De Méric, Mr. Berkeley Hill, and Dr. Ziemssen for the support which they had given to the main argument of his paper.

CLINICAL REMINISCENCES.

By PEYTON BLAKISTON, M.A., M.D., F.R.C.P., F.R.S.

No. VI.

Treatment of Disease—*continued.*

The difference between the treatment previously described and that which exists in the present day is so great that it must be a very interesting subject of inquiry to endeavour to ascertain by what steps such a complete revolution has been effected. The supposition thrown out at the onset, that the changes that have taken place have not resulted from discoveries in physiology or pathology, will, I think, be found to be well grounded. But although they may not have given rise to changes of treatment, yet they have served in some instances to confirm their soundness and value, and to explain their mode of action. Thus, my researches, which established the fact that a large majority of cases of cardiac dropsy, if not all, depend directly on incomplete action of the tricuspid valves, in most cases arising from dilatation of the cavities of the right side of the heart, did not lead to the substitution of a tonic for a lowering treatment, because I and others had been previously led to this conclusion from clinical observation; but they confirmed the soundness of the practice which had thus been adopted. And the same researches which proved that when congestion of the brain occurred it was almost always venous, and in no way depending on hypertrophy of the left ventricle of the heart, did not lead to the suspension of venesection; for here again the practice had preceded the theory. So, again, it is only within these few years that the true nature of inflammation has been revealed to us, and the fact demonstrated that, in certain forms of it, alcohol tends to shorten its course of action; but, as has been fully explained in the introduction to my work on "Diseases of the Heart," it is more than thirty years since I discovered that stimulants tended to cure rather than to aggravate inflammation in certain cases, and I have used them for this purpose with great advantage up to the present time.

Nor has the introduction of new therapeutic agents into practice brought about these great changes—such, for instance, as preparations of iodine and bromine, cod-liver oil, and pigs' pepsine,—although they have come into general use, and are most valuable additions to the Pharmacopœia, and to some extent have *modified* the treatment of certain diseases. Nor have they been effected by the discovery of the action of anæsthetics, which have proved of such great value to general, ophthalmic, and dental surgeons. Homœopathy and hydropathy have made their appearance, and have enrolled many

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followers in their ranks. The former may possibly have in some degree assisted in diminishing the enormous quantity of physic which was at one time given by those whose only profit arose from its consumption; and the latter may have helped to open our eyes to the manner in which some impurities of the blood, such as occur in rheumatism, may be removed through the pores of the skin, and how water may be made the instrument of effecting this object. But all this had no effect in bringing about the changes in treatment which have taken place during the last half-century. A reference to the periodical medical literature of former years will show that these changes arose from the labours of various persons in different parts of the country, who, not content with working in their own spheres, freely communicated to the profession the results of their labours,—men, who were rendered fit for their work by the improvement that had taken place in their general and professional education, and were assisted in no small degree by the improved style and increased extent of medical literature, and the extension of hospitals and dispensaries.

As regards my own personal experience, which it has been the object of these papers to give, I cannot recall any one striking instance in which an *immediate* change in my views of treatment was produced. I cannot remember the time when I gave in my adhesion to the plan of consulting a cut-and-dried list of remedies for different diseases, or when I did not rather entertain a supreme contempt for the various vaunted specifics. Had I ever entertained such ideas I think they would have been completely dispelled by what I saw during a violent outbreak of cholera in Paris. Amongst other persons attacked was Orfila, at that time Dean of the Faculty of Medicine. He was assiduously attended by the most eminent of his colleagues, who took their turns to watch by his bedside. After his recovery, I inquired of one of them what line of treatment had been adopted: I was told that the leading men of Paris knew of no specific for cholera, and that Orfila and their other patients were treated according to the stage in which they were—sickness, cramps, diarrhœa, collapse,—each being met by the most appropriate remedies, as if they had been seen in an uncomplicated form. This line of treatment I subsequently adopted myself, during an outbreak of cholera in this country, and with a fair amount of success. Here I may mention that on this occasion I learned that cholera was not communicable by the breath of the patient or by contact with his body during life or after death. For at one time the cholera patients were placed indiscriminately with others in the same ward in the Hôtel-Dieu, and the disease was not communicated from one to another; and for six months, with one exception, the subjects furnished for dissection in Berard's Laboratory in the Ecole de Medecine were all choleraics. The correctness of this view has been confirmed by modern researches, giving reason to believe that the germs of the disease are propagated through the dejecta finding their way into water or food, and thus to other persons. It is a curious circumstance that Dr. Beale should have found the villi of the intestines in a state of chronic disease in all the bodies he examined of persons who had died of cholera. This may account for the exemption of myself and others in the midst of the disease day after day.

The necessity of discontinuing venesection in one form of inflammation was impressed upon me very early in my career. Whilst a dresser in Addenbrooke's Hospital, I had under my charge several cases of erysipelas, in some of which it had come on in limbs in which the circulation had been obstructed, and in others where the patients had been reduced to a low, weak state of health by serious accidents or other depressing causes, so that I began to look upon it as a disease more or less arising from, or at any rate appearing in, an asthenic state of the system. Some time after this, I came across some remarks of the late Sir C. Mansfield Clark (but where, I cannot now recall to mind), in which he took the same view, and recommended a tonic rather than a lowering treatment; in fact, bark and port wine instead of venesection and salines. About twenty years afterwards, when I joined the staff of the Birmingham General Hospital, I found erysipelas very prevalent. Some of the cases of surgical erysipelas were bled; those of Mr. Hodgson were treated with salines and rather low diet, but were not bled. The house-surgeon, a young man of great zeal and intelligence, observing the success that attended my tonic treatment of medical erysipelas, agreed with me that there was no reason why it should not be employed in the surgical cases; and so by degrees it was adopted, to the best of my recollection, with very favourable results. This was, I think, the first rung of the ladder which has carried me up to my present views; and I commenced the ascent fifty years ago or thereabouts.

There was another circumstance, also, which I think led me in the same direction. From the first I was in the habit of listening to the sounds of the heart on all occasions, and was accustomed to measure the amount of the patient's strength in some degree by the force of the heart's action and that of the systolic sound; and this would, of course, reveal to me numerous cases in which inflammation was present in persons in a very debilitated state of health, and on whom, consequently, venesection and lowering treatment could not be safely practised—such, for instance, as was often seen in cases of pericarditis, puerperal peritonitis, etc.

The administration of alcohol in the later stages of fevers was known and practised long before I entered the profession, but about that time it had very much fallen into disuse. How I came to employ it when actual inflammation was present has been fully detailed in the introduction to my work on "Diseases of the Heart," where, after giving a summary of its mode of action, I concluded by stating that "*in no case was a habit of drinking known to have been induced by it*," and this I emphatically repeat now. Last year, however, a document appeared in the public prints, signed by a large number of influential members of our profession, the preamble of which stated that "It was believed that the inconsiderate prescription of large quantities of alcoholic drinks for their patients by medical men had given rise in many cases to the formation of intemperate habits." By whom this document was got up, and by what arguments those who signed it were induced to do so, I shall not stop to inquire; but I suspect that almost before the ink was dry, some of them repented of what they had done.

I yield to no man in my anxious desire to see a stop put to the hateful vice of intemperance; but I will not do evil that good may come, by allowing assertions to pass unnoticed which I well know rest on no sound foundation. To say nothing of my own experience in the matter, I have conversed with many men in large practice, but none of them have been able to furnish me with a single fact corroborative of the statement contained in the "Declaration" which has been quoted above; and I challenge those whose names were attached to it to bring forward well-authenticated cases which have occurred under their own observation and in their own practice, and which justify the assertion they have sanctioned. I have myself been told not unfrequently by the friends of those whose intemperate habits could not be concealed, that they arose from stimulants having been ordered in an acute attack of illness by a former medical attendant; but I seldom failed to discover either that the habits had been contracted previous to the illness referred to, or else that it had been induced in a very different manner. It is, indeed, a matter of surprise that attempts such as these to make a scapegoat of the doctor should be received without due investigation by well-educated men of the world, who ought at least to know something of the laws of evidence.

It is quite possible that a habit of drinking might be engendered by persons being advised to take a glass of wine or a little spirits whenever they felt unusually fatigued, depressed, or hysterical; but I do not believe that medica men are in the habit of thus prescribing. For my part, I have always recommended a *medicinal* pick-me-up in such cases, as sal volatile, chloric ether, or the like. As an article of diet, in combination with food, a certain quantity of wine or spirits, as the case may seem to require, is of course frequently ordered; but no one, I presume, would venture to assert that this would lead to habits of intemperance.

But although I deny that the members of our profession are to blame in this matter, there are other persons who undoubtedly are. When young girls are taken night after night to a succession of routs and balls till the morning breaks, so that at the close of the season the languor and used-up look of some of them is pitiful to behold, is it surprising that they should be *compelled* to have recourse to stimulants, in the shape of champagne and other liquors, to enable them to get through the work they have to do, and without which they could not do it?—more especially when they are encouraged to do so by some parents, anxious that their daughters should preserve to the last the bright sparkle of the eye which is so captivating, and the artificial strength which for a time passes for natural vigour of health and constitution. That such cases are of common occurrence, and that they not unfrequently terminate in habits of intemperance amongst females in the very

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highest classes of society, has been made painfully apparent to me in the course of a long practice amongst them. Let, therefore, the members of our profession, instead of taking to their order the blame which does not attach to it,—let them, I say, put the saddle on the right horse, and point out to their patients the evils they are bringing on themselves and on their daughters.

So amongst our own sex, stimulants, sometimes in great quantities, are occasionally resorted to by men who work hard, not only at manual labour, but in their over-strained intellectual efforts. Instances of this may be found amongst men of the greatest eminence in their respective callings. Here again the doctors are not to blame. Let us, then, neglect no opportunity of making it well understood that neither the mind nor the body can be over-strained with impunity; and that the artificial and temporary power resulting from stimulants will lead in some to habits of intemperance, and in others to premature decay.

Such are some of the changes which have taken place in my own views respecting the treatment of disease in general, and such the manner in which they have been brought about. There is, however, one disease, of fearful extent, respecting the treatment of which these views have undergone no change, and that is phthisis pulmonalis. In my work on "Diseases of the Chest" I have discussed the different modes of treatment in vogue at that time, and have given my reasons for rejecting the antiphlogistic and expectant, and adopting the tonic treatment, in conjunction with Louis, Graves, Sir James Clark, Williams, and others. Although doubtless much influenced by the practice and teaching of Louis, I was confirmed in my views by investigations of the nature and causes of phthisis, leading to the conclusion that "the union of tonic and sedative remedies was the grand principle on which to proceed in our endeavours to arrest its progress." Nor have modern researches on these points in any way altered this view. Knowing what we now do of the nature and treatment of inflammation—it matters not whether it precedes or accompanies phthisical deposit,—in no case is antiphlogistic treatment indicated, for the fact remains that "constitutional derangement of an *asthenic* character is present, and is associated with a certain amount of irritability, which call for the union of tonic and sedative remedies." Soon after cod-liver oil was introduced, I made use of it in one hundred cases, and recorded the results. Since that time I have used it extensively, and can fully confirm Dr. Williams's estimate of its value. Sometimes, when the stomach would not bear it, I found glycerine produce excellent results; and it is curious that in some cases, after glycerine had been taken some time, the stomach could then retain the oil.

But although no change has taken place in my views respecting the nature and treatment of phthisis, yet they have been very much modified in regard to its hereditary transmission. I am now fully convinced that it has been greatly exaggerated; an opinion which began to dawn upon me more than thirty years ago. This is what I then said:—"The influence of hereditary transmission was not very strongly marked in the cases that fell under my notice, if by that impression it is intended to denote that one or both parents had died of phthisis. Although several instances occurred of whole families having successively followed one parent who had died of this disease, yet in the *majority* of cases phthisis showed itself in one member of a family in which both parents were either alive or had died of some other complaint." This was the result of an endeavour to ascertain the family history of four thousand phthisical patients; but I arrived at the conclusion that "additional observations were required—those of any one person, however extensive they may have been, being insufficient for correct induction." Further researches have all pointed in the same direction; and others, too, having given their attention to the subject, I have reason to think that my opinions have been confirmed. That phthisical parents produce unhealthy children, will, I think, be fully admitted, although their disease may not be of a phthisical nature.

This sketch of the treatment of disease during the last half-century, having been drawn solely from memory, is necessarily slight and imperfect, but as far as it goes it is *true*, as I have stated nothing which I have not seen myself.

(*To be continued.*)

TYPHUS FEVER of a virulent form, it is reported, has prevailed for some time at Kinghorn, Fifeshire, and is spreading into the adjoining county. Many cases have been fatal.

REVIEWS.

The Pharmacopœia of the Hospital for Diseases of the Throat, based on the British Pharmacopœia of 1867. Edited by MORELL-MACKENZIE, M.D. Lond., Honorary Medical Superintendent. Second edition. London: J. and A. Churchill. Pp. 100.

THAT the first edition of this little volume (amounting to 1000 copies) was exhausted in twelve months, shows decidedly that it met a want in the profession; and we can easily conceive how that came about. Many men familiar with the modes of treatment necessary for ordinary throat cases—meaning thereby those within the reach of the unaided eye or finger—were not familiar with those methods which the laryngoscope could demonstrably prove beneficial when applied to the larynx itself. Moreover, of late years, many new forms of remedies applicable to the air-passages have been introduced. Foremost among these are inhalations, lozenges, and atomised fluids. The older plan of direct application by sponge or brush, too, has been decidedly improved upon. In this Pharmacopœia, the fluids used by the atomiser are termed *aquæ*, and should not be confounded with the officinal preparations of that name. The proportions for these here given will be useful to many, though they are not what, in more than one instance, we should ourselves employ; but they err—if indeed they do err, and not we ourselves—on the side of safety rather than of over-potency. A good hint is given as to the best mode of using solid nitrate of silver, to the use of which we are fain to confess ourselves addicted. In this Pharmacopœia they recommend it to be fused on to a slender rod of aluminium, a practice which certainly obviates the old risk of a piece of the caustic breaking off in the patient's throat—an accident which, we suppose, has come under the observation of most men who have much used the solid caustic. There are many other points of interest in this little volume; but we must abstain from doing more than referring to some of the more unusual substances made use of for inhalation—technically, *vapores*. Among these we notice aldehyde, nitrite of amyl, sweetflag, cloves, cubebs, juniper, hop, myrtle, mountain pine, Scotch pine, sage, sandalwood, and thymol. Were it only for the directions given as to the administration of these, the book would be a useful one.

On Self-Culture, Intellectual, Physical, and Moral. A Vade-Mecum for Young Men and Students. By JOHN STUART BLACKIE, Professor of Greek in the University of Edinburgh. Edinburgh: Edmonston and Douglas. 1874.

THIS small volume, although not treating of medical subjects, contains so many valuable hints for young men entering life as students, that we have much pleasure in directing the attention of our readers to it. The work of a well-known and highly esteemed gentleman and scholar, who has thoroughly thought out the subject before committing it to paper, it will commend itself to its readers by the parental and earnest tone of the advice which it seeks to convey.

The first part tersely sketches a few rules which all young men will find it useful to adopt for the purpose of collecting knowledge at the outset of their career; thus, the author, whilst giving to books their due weight as means for acquiring information, points out that life, experience, personal thinking, feeling, and acting, are the original and proper sources from whence knowledge should be drawn. Then, observation of facts, classification, reasoning, the culture of the imagination, of the memory, and other points are concisely treated upon, and the student is specially warned against two of the quicksands of youth—one, the maxim *nil admirari*; the other, the method of acquiring knowledge known as "cram." The former, Mr. Blackie observes, "as a maxim may be excusable in a worn-out old cynic, but is intolerable in the mouth of a hopeful young man"; whilst the latter he stigmatises as "a mere mechanical operation, of which a reasoning animal should be ashamed."

The second section is full of sound suggestions for insuring the *mens sana in corpore sano*, advocating open-air exercise, the practice of gymnastics, and a moderate indulgence in cricket, boating, and other health-giving diversions, with sound rules what "to eat, drink, and avoid," and a smart admonition as to the necessity of regulating the hours of study so as not to "poach upon the sacred domain of sleep."

The third portion of this little volume, and the one which the author himself believes to be "the most important of the

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three great chapters of self-culture," treats of the excellence of moral training; points out the necessity of obedience, truthfulness, and perseverance; and reminds the reader, in a gentle but impressive manner, that the acquisition of learning is not the only thing to be sought after in the days of one's youth, but that to be possessed of the "surest antidote against a spirit of shallow self-confidence, so apt to spring up with the knowledge without charity, which puffeth up and edifieth not," it is necessary always to preserve an attitude of reverential dependence on the Supreme Source of all good.

GENERAL CORRESPONDENCE.

BLOODLESS SURGERY.

LETTER FROM MR. WILLIAM MAC CORMAC.

[To the Editor of the Medical Times and Gazette.]

SIR,—One deduction may, I think, be not unfairly drawn from the somewhat animated discussion as to the right of priority which Esmarch is assumed to claim for his "bloodless method of operating." It is that the value of the procedure is now very generally admitted. If this be so, a more fruitful subject for discussion would be the influence the general employment of this method may exercise upon the results of operations, and the nature of the cases to which it is applicable or the reverse. Material will doubtless soon prove forthcoming upon which to base some conclusions.

I read with pleasure Mr. Erichsen's interesting letter in your last number. I must agree with him in thinking that the employment of Dittel's, or rather Silvestri's, elastic ligature will probably be received with as little general favour in England as it has already met with in Germany. For some exceptional cases it may be useful, but for the majority of cases the knife, the galvano-cautery, and the écraseur are surely preferable. We must, however, go further back than twenty years, or than Mr. Clover's proposal to elevate or bandage the limb before applying the tourniquet, to determine the vexed question of priority. The same thing has been done by Stromeyer, and Langenbeck, and others—for instance, by French surgeons, as many as twenty years ago. Probably it was from time to time practised by a variety of surgeons, and sporadic bloodless operations were perhaps not very rare. Sartorius performed in 1806 the historic operation of dividing the tendo Achillis through an incision four inches in length along the back of the leg. He mentions that he previously "enveloped the limb with a roller-bandage, and applied a graduated compress and tourniquet to the femoral artery. But little hæmorrhage took place." It does not seem to me that these previous attempts detract from Esmarch's merit in introducing a plan which in its details is novel and simple, and capable of very wide application. So simple and so efficient is it that its use has become general—epidemic, in short—in a remarkably brief space of time both in England and abroad. No prior method ever achieved this result; and such a result, obtained as it has been in Esmarch's case, establishes his claim to priority of the best sort—a practical success. Let me, in conclusion, quote an expression from a letter I received from the Kiel Professor a fortnight since. He writes—"Ich mache mir nichts aus der Prioritat, ich bin Zufrieden wenn ich der Menschheit in Etwas genutzt habe."

I am, &c., WILLIAM MAC CORMAC,
Surgeon to St. Thomas's Hospital.

THE UNITED HOSPITALS OF GUY'S AND ST. THOMAS'S.

LETTER FROM MR. F. LE GROS CLARK.

[To the Editor of the Medical Times and Gazette.]

SIR,—In your number of January 3 there is a paper entitled "A Case of Divorce," in which Mr. J. F. Clarke describes a scene that took place in St. Thomas's Hospital in 1836. This account contains inaccuracies, and imputes to the officials of the Hospital discreditable conduct, which, if uncontradicted, may be accepted as a correct historical account of this transaction. I know not whether the writer was present on the occasion referred to; but, if so, the circumstances can have been but imperfectly known to him, and have left a very different impression on his mind from that which mine received.

Mr. Clarke remarks:—"Then came the very indiscreet act upon the part of one of the surgeons of St. Thomas's, of making the Guy's men show their tickets before entering the operating theatre." The fact is that this usage prevailed previously; and this condition of admittance to the Guy's theatre was equally exacted from the St. Thomas's men.

Again: "A notice was posted that lithotomy would be performed on three patients." This is inaccurate: I know lithotomy was to be performed, and it might have been in two cases; but this operation was of too frequent occurrence at Guy's to constitute any special attraction to the students.

That the Hospital porters took the initiative by "insolence, violence, insult, impertinent interference, drawing a constable's staff, etc.," I have no recollection. The Hospital rule, suspended in the theatre, indicating that only the dressers of the operating surgeon were permitted to remain within the area, was in force at both Hospitals, though attempts were frequently made to violate it; and the "two dressers" ought not to have intruded, and certainly ought to have retired when reminded of the regulation. On their refusal to do so, I doubt not the same measure would have been properly meted to them at Guy's.

"Other policemen and porters interfered." There were no police present at this time; if they were, such a fact would be conclusive proof that a premeditated disturbance was anticipated. It is not improbable that police were afterwards sent for by the authorities, and very properly so, to quell the disturbance.

One episode of a grave character is omitted from Mr. J. F. Clarke's "Recollections," and that is the attempt which was made by several Guy's students to throw the obnoxious porter over the lobby rails into the area below. Happily for the excited young men, this act of frenzy was prevented by the interference of the St. Thomas's students, who rescued the intended victim from an impending fall, which would almost certainly have proved fatal; and one young man, who had taken a bold and prominent part in this rescue, was afterwards ill-treated, and was with difficulty sheltered from more serious molestation.

The reference to the part taken by "one of the surgeons of St. Thomas's" in this affray might be accepted as a harmless sensational colouring of the picture, and passed by unheeded, were it not that the remarks are an unjust reflection on the conduct of gentlemen whose memory is held in respect by all who knew them.

This riot originated in an unjustifiable resistance to authority. The regulation which was infringed in this instance was a wholesome one, and its strict enforcement was loudly called for by the students themselves, for whose special behoof it was framed. It is, therefore, unjust to impute the blame of the disturbance to the officials of the Hospital, and especially to the surgeons, who very properly refused to operate amid such disorder.

I may add, with his sanction, that Mr. Whitfield, then an officer of St. Thomas's, entirely confirms what I have stated on this subject.

It is with reluctance that I trouble you with a letter which can have but little interest to the present generation; but the inadvertent publication of my name in your number of last week, contrary to my intention and wish, leaves me no alternative. I am, &c., F. LE GROS CLARK.

January 14.

REPORTS OF SOCIETIES.

CLINICAL SOCIETY.

FRIDAY, JANUARY 9.

PRESCOTT HEWETT, F.R.C.S., President, in the Chair.

AFTER the transaction of the ordinary business of an annual meeting (elsewhere detailed), Mr. B. CARTER proceeded to show a patient in whom Sarcoma of the Orbit had been Cured by Actual and Potential Cautery. He exhibited the patient, of whose case he gave the following account:—L. C., a girl aged 12, was brought to St. George's Hospital on March 5, 1872, on account of a rapidly growing tumour, occupying the upper part of the left orbit, and displacing the eye outwards and downwards. It was removed on the following day; but was found, on microscopic examination, to present the characters of spindle-celled sarcoma. In six weeks it returned; and a second attempt at its removal was unsuccessful,

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as the new growth was very soft, had no defined limits, and seemed to infiltrate all the tissues of the orbit, and to extend far back towards the apex. On May 2, the eyelids, eye, and the whole contents of the orbit, were removed; and the cavity, after being carefully dried with a hot iron, was lined with chloride of zinc (Fell's) paste, in the manner successfully practised by Mr. Lawson. The bones of the orbit were thrown off by exfoliation, the sides of the cavity have skinned over, except where there is exposed mucous membrane at its apex, and there has been no return of the disease. The girl is strong and healthy, and may fairly be considered cured. Mr. Carter said he believed there was no other instance on record of the application of this treatment to a quickly growing malignant tumour in a young subject; and he urged that the facts supported the view that malignant disease was essentially and originally local. In confirmation of this opinion, he cited a case that he had formerly published, of the removal of an eye containing a gliomatous tumour of the retina, the patient being still alive and well, and with no return of the disease, twelve years after the operation. He also mentioned the case of a child with glioma of both retinæ, from whom the right eye was removed in infancy to determine the nature of the disease. The parents were then urged to permit the removal of the left eye also, but they refused. The glioma of the left eye remained stationary for more than three years, after which time it grew rapidly, and was eventually removed too late, having already spread along the optic nerve to the brain. On the right side no return of the disease had taken place, and the right optic nerve had wasted into a fibrous cord. Mr. Carter admitted the facilities for the complete removal of morbid growths, which were afforded by the anatomical conditions of the orbit and the eyeball; but urged that surgeons should aim at early and complete removal in other portions of the body. A section of the growth removed from the patient shown was placed under a microscope for the inspection of the members of the Society.

Mr. Arnott asked if this growth in the right eye remained nearly unaltered for two years.

Mr. Carter said that was so, as far as evidence went. When first seen, the growth was in patches on the retina, and the parents said the child had been quite well till just before it was seen again. There was no discoloration or pushing forwards of the iris when seen the second time, but he could not make out the exact condition by the ophthalmoscope. Afterwards it increased very rapidly.

Mr. T. Smith said that Mr. Carter seemed to think that at one stage this growth was merely local, and that the old division of growths into innocent and malignant tended more and more to be broken up. New growths of the orbit were apparently peculiar, especially as regards isolation of their circulation. He thought there must be every degree of malignancy in tumours. We could hardly argue as to such a disease as hard cancer of the female breast from a tumour like a glioma. Even fatty tumours might return after removal.

Mr. Arnott remarked that glioma was considered a very malignant growth. It was said always to return.

Dr. Cayley thought Mr. Smith confounded constitutionalism with malignancy. Tumours might return and spread, and yet not be constitutional.

Mr. Carter said glioma was considered very malignant. Only few cases were on record where it did not return. If there were degrees of malignancy, surely one of the highest would be reached by a soft tumour growing so fast that you could see a difference every day. If removal of such were successful, one might surely expect that in other tumours there would be a period when removal promised success.

Dr. Douglas Powell brought forward three cases illustrating the two ways in which he thought Aneurism of the Aorta might arise as the Result of Rheumatic Fever—viz. (1), by extension of the rheumatic endocarditis to the commencement of the aorta, and subsequent yielding of the vessel to the blood-pressure; (2) by chronic atheromatous disease of the aorta, arising as the later result of the aortic regurgitant disease left behind by the rheumatism. With regard to the first proposition, Dr. Powell said that he had never seen, nor did he know of, any recorded post-mortem evidence of extension of rheumatic endocarditis to the aorta; but he thought the following case furnished strong clinical evidence in favour of it:—Case 1.—A youth, aged 17, had two attacks of rheumatic fever six years ago. In January, 1873, he complained of increasingly urgent dyspnœa, and was admitted into University College Hospital, presenting the signs of aortic regurgitant disease and of circumscribed aneurism (probably of the globular kind) of the ascending aorta, the chief signs being impulse, thrill, dulness, and double bruit over the second and third cartilages, and some tubular respiration at the posterior apex of the right lung. There was in this case no history of any injury or other cause to account for the aneurism. This patient was in attendance at the last meeting of the Society. In illustration of the second proposition, Dr. Powell adduced the two following cases:—Case 2.—A bricklayer, aged 37, of temperate habits, had been healthy up to 1862, when he had rheumatic fever, and was severely ill for two months. In 1869, he was under the care of a colleague, Dr. Tatham, for three months, presenting the signs of uncomplicated heart disease, mainly aortic regurgitation; he was at the end of that time discharged much relieved. In March, 1873, he came under Dr. Powell's observation at the Brompton Hospital, presenting the marked signs of aortic aneurism,—viz., impulse, bruit, thrill, and displacement downwards of the base of the heart. This patient was in attendance in an adjoining room. Case 3.—A woman, aged 48, had had rheumatic fever seventeen years ago. From February, 1870, to January, 1872, she had been under the careful observation of Dr. Theodore Williams and Dr. Powell, and repeated examination of the heart and pulse only discovered the signs of cardiac disease, more particularly aortic regurgitation. In February, 1873, she for the first time presented signs of aortic aneurism—viz., bruit, thrill, impulse, etc., which had subsequently increased. Dr. Powell's theory, in explanation of the occurrence of aneurism secondarily to aortic regurgitant disease of the heart, was that this latter disease was attended with great hypertrophy of heart and increased patency of the aortic orifice. The aorta at one moment received the unduly forcible shock of an increased volume of blood, and the next moment was unduly empty and flaccid from the escape of that blood, both onwards and backwards. The strain thus occasioned to its first portion tended in time to produce atheromatous disease and dilatation, or positive aneurism, as in the two cases last referred to.

Dr. C. T. Williams said that in the case seen by him there was at first no aneurism, but it was not difficult to understand that an aneurism could be so generated.

Dr. J. Pollock thought the great value of the paper was that it directed attention to the subject. His own impression was that the majority of cases of aneurism were not rheumatic.

Dr. B. Yeo confirmed Dr. Pollock's view. He thought a rheumatic origin of aneurism was very rare.

Dr. Green said Dr. Powell had started two propositions—one, that aneurism was due to aortic regurgitation; the other, that it was due to the spread of inflammation from the valves of the heart to the aorta.

Dr. Powell said he was by no means prepared to say that all cases of aneurism were of rheumatic origin, but that there was a grave tendency for aortic regugitation to be followed by aneurism. He thought the first case one of extension of inflammation from the heart to the aorta.

NEW INVENTIONS.

PULMONIC CANDLES.

Specimens of a new invention of the Messrs. Field and Co., of Upper Marsh, Lambeth, have been submitted to us, and certainly deserve a passing notice. They are candles containing in their substance some of those gum-resins and balsams, especially benzoin and storax, which from time immemorial have been found useful in chronic bronchitis and allied maladies. When burnt, the candles yield, by the combustion of these drugs, a pleasing fragrance, and at the same time give a fairly good light. It seems to us that they might prove of undoubted service to invalids of the class mentioned, who are only too numerous among the aged.

Who is He?—Several of our daily contemporaries, in the accounts they published of the execution on Monday last of two men and a woman for murder at Gloucester, state that the executioner was Anderson, a medical man, and assistant of Calcraft, to whom he hands the fee for the revolting duty, and that on this occasion several medical men were allowed to be present. It would be interesting to know whether this amateur hangman belongs to any English University or College, and which?

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OBITUARY.

DR. JOHN THOMPSON DICKSON.

It is our sorrowful duty to announce the death of this accomplished young physician, which took place very suddenly in his carriage on the 5th inst. as he was going to make a professional visit. It was known to his more intimate friends that he had long suffered from serious disease of the heart, caused by rheumatic fever in his fifteenth year. He was fully aware of his illness; indeed, the distress caused by it was often very acute. Such, however, was his unfailing courage and energy of purpose, that he continued in constant hard work, notwithstanding his sufferings and danger.

In selecting the medical profession, he had rejected an excellent position and high prospects in mercantile life which were awaiting him; and the love of the study of medicine, which determined his choice, never failed him through all discouragements, but urged him to an enthusiastic pursuit of medical knowledge and the endeavour to advance medical science. His distinguishing characteristic was earnestness of purpose in physiological inquiry. This made him full of faith in the means of study, and kept him always using such opportunities as lay within his grasp untiringly and faithfully, never doubting that good might come of it. Though of late he could hardly walk twenty yards without stopping, he thought, wrote, and did as much as if he were hale and robust, and he never showed by word or deed a sign of repining at his feeble health. Dr. Dickson had just completed correcting the proofs of his work on Mental Disease (now ready for issue), and had half-finished another chapter on the same subject as his last paper in the *Lancet*—"Sympathetic Depression and Emotional Disturbance." He was hard at work in private and hospital practice, and on nerve preparations. He was no mere speculator, but a skilful operator in physiological experiments, and his microscopical preparations of the brain and spinal cord might bear comparison with those of Dr. Lockhart Clarke; and to produce these, long, patient, watchful, skilful work was required, such as few have the constancy and thoroughness to devote. Though his knowledge was most extensive and varied, he entertained a very modest opinion of his own acquirements, and felt the inadequacy of his opportunities in the practical study of nervous diseases, and in a letter to an intimate friend, written not many days before his death, he gave a touching expression to that feeling.

Dr. Dickson was educated at Guy's, and went from that hospital to Cambridge, where he proceeded to the degree of M.A. and M.B. in 1867, became M.R.C.P.L. in 1868, M.R.C.S. Eng. in 1863, etc. He had held the appointment of Assistant Medical Superintendent of the City of London Lunatic Asylum, Dartford; Resident Medical Superintendent of St. Luke's Hospital; and Hon. Physician to the Royal Dramatic College. He also had several other appointments in the special department to which he was attached. His chief work lately was in the lectureship on Mental Diseases at Guy's Hospital, where he had created for himself a name as a devoted and successful teacher.

WILLIAM W. THOMAS, M.R.C.S.,

Died suddenly, from disease of the heart, on Saturday, the 3rd inst., at his residence, Bodeinion, Llanfair, Caerinion. He was Medical Officer of Llanfair District, Llanfyllin Union; late Surgeon Hudson's Bay Company's Collieries, Vancouver's Island; and author of "Case of Spontaneous Evolution."

Naval and Military News.—Several courses of lectures are about to be delivered at the School of Military Engineering at Chatham; amongst other subjects Dr. Du Chamont will deliver four on "Hygiene"; Mr. A. H. Green will deliver a course on "Geology." At the Royal United Service Institution, Dr. Leith Adams, F.R.S., M.D., Surgeon-Major, will lecture "On the Recruiting Question, from a Military and Medical point of View," on February 2; Staff Surgeon-Major J. D. Macdonald, F.R.S., M.D., M.R.C.S., of the Army Medical School, will lecture "On Ventilation of Ships, especially of Low-Freeboard and Hospital Ships," February 13; Surgeon-General W. C. Maclean, M.D., C.B., Professor of Military Medicine at Netley, will lecture on "Sanitary Precautions to be observed in the Moving and Camping of Troops in Tropical Regions," February 27.

MEDICAL NEWS.

Royal College of Surgeons of England.—The following gentlemen passed their primary examinations in Anatomy and Physiology at a meeting of the Court of Examiners on the 13th inst., and when eligible will be admitted to the Pass Examination:—

Allott, Wordsworth L., student of the Leeds School.
Blake, Andrew H., of the Dublin and Middlesex Hospitals.
Bott, William G., of St. Thomas's Hospital.
Boughton, Joseph, of Guy's Hospital.
Clarke, Robert H., of St. George's Hospital.
Colborne, Henry, of St. George's Hospital.
Fell, Thomas K., of Guy's Hospital.
Ferraud, Edward, of St. Bartholomew's Hospital.
Flint, Horace, of University College.
Forrest, J. G. S., of St. George's Hospital.
Garrod, Alfred H., of King's College.
Godfrey, Charles H., of University College.
Johnson, Edward T., of St. Mary's Hospital.
Kidd, W. Aubrey, of Guy's Hospital.
Landberg, Arthur G., of the Liverpool School.
Lewis, Joseph, of Guy's Hospital.
Lithgau, Thomas G., of St. Mary's Hospital.
Murphy, Henry H., B.A. Cantab., of St. George's Hospital.
Oliver, Robert A., of the Newcastle School.
Phillips, Sidney P., of University College.
Porter, Thomas L., B.A. Cantab., of Guy's Hospital.
Pugh, John H., of St. Thomas's Hospital.
Scovil, Frank T., of St. Mary's Hospital.
Snell, E. G. C., of the London Hospital.
Stevenson, Leader H., of Guy's Hospital.

Mr. George Greenslade, L.R.C.P. Edin., of Martock, Somerset, was admitted a Member of the College at the close of the primary examination this day.

The following gentlemen passed on the 14th inst., viz.:—

Allen, Richard G., student of the Birmingham School.
Barran, Thomas H., B.A. Cantab., of University College.
Bell, Thomas A., of Guy's Hospital.
Brown, Horatio R., of King's College.
Chadwick, Walter S., of the Leeds School.
Daltan, Arthur E., of King's College.
Davies, Thomas, of King's College.
Fairland, Sydney T., of the Westminster and Guy's Hospitals.
Fitzgerald, James G., of the Dublin School.
Griffith, David C. B., of St. George's Hospital.
Hall, William H., of Guy's Hospital.
Hayes, Francis G., of King's College.
Holwell, Edward B., of the Leeds School.
James, Joseph B., of King's College.
Johnson, William B., of the London Hospital.
Miller, Frederic D., of King's College.
Oliver, John P., of the Dublin School.
Smith, William R., of King's College.
Williams, Alexander L., of St. George's Hospital.
Willis, Charles F., of St. Thomas's Hospital.
Winship, William L., of the Newcastle School.

The following gentlemen passed on the 15th inst., viz.:—

Carcenac, Edward, student of St. Bartholomew's Hospital.
Evans, William Evan, of King's College.
Kemp, John R., of St. George's Hospital.
Newland, Charles F., of St. Mary's Hospital.
Roughton, Walter, of St. Bartholomew's Hospital.

Out of the eighty-five candidates examined, it is stated that thirty-four were referred to their studies for three months.

Apothecaries' Hall.—The following gentlemen passed their examination in the Science and Practice of Medicine, and received Certificates to practise, on Thursday January 8, 1874:—

Bates, William, The Crescent, Birmingham.
Brayn, Richard, Hollystone, Market Drayton.
Hughes, William, H.M.'s Hospital Ship, Cardiff.
Page, Herbert Markant, General Hospital, Birmingham.

APPOINTMENTS.

*** The Editor will thank gentlemen to forward to the Publishing-office, as early as possible, information as to any new Appointments that take place.

Soutter, M. C., M.R.C.S. Eng.—Surgeon in sole charge of the Hornsey-road Branch of the Islington and North London Provident Dispensary.

Wright, F. Wade, M.R.C.S. Eng.—Assistant Medical Officer to the Aberdeen Royal Lunatic Asylum, *vice* D. A. Patterson, M.B., C.M., resigned.

BIRTHS.

Hardwicke.—On January 11, at Highfield-terrace, Sheffield, the wife of Herbert Junius Hardwicke, L.R.C.P., of a son.

Hilliard.—On January 8, at 5, Belgrave-terrace, Upper Holloway, the wife of R. Harvey Hilliard, M.D., of a son.

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HUGHES.—On January 12, at Walton-on-the-Hill, the wife of Ebenezer Hughes, M.D., of a son.

WILBE.—On January 11, at York Lodge, Finchley-road, N.W., the wife of K. Haydock Wilbe, M.D., of a daughter.

MARRIAGES.

POPHAM—WRIGHT.—On January 13, at Trinity Church, Paddington, Benjamin Francis Popham, M.D., Nottingham, to Margaret Leigh Wright, youngest daughter of the late Edward C. Wright, formerly rector of Pitsford, Northamptonshire.

WOOD—GREENWOOD.—On January 8, at All Saints' Church, Blackheath, Charles George Wood, Esq., of 16, Eldon-road, Kensington, only surviving son of the late John Asprey Wood, second in command 25th Assam Light Infantry, H.E.I.C. Service, to Mary Anne, only daughter of the late Henry Greenwood, M.D., of Talbot-place, Blackheath, Kent.

DEATHS.

ELLIOT, WILLIAM HENRY, M.D., M.R.C.P., M.R.C.S. Eng., L.S.A., at Bouverie House, Exeter, on January 10, aged 68.

GREEN, THOMAS, M.D., M.R.C.S. Eng., L.S.A., at 26, Regent-street, Cambridge, on January 8, aged 72.

KENT, JACKSON GOODENOUGH, L.F.P.S. Glasg., M.R.C.S. Eng., L.S.A., at Pelham Lodge, Kingston, Surrey, on January 11, aged 45.

MARRIOTT, JOHN, L.S.A., at Colston Bassett, Nottinghamshire, on January 2, in his 80th year.

PIPER, EDWARD FRANCIS, eldest son of S. E. Piper, F.R.C.S. Eng., of Darlington, at the Infirmary, Newcastle-on-Tyne, after a few days' illness from toxæmia, on January 11, aged 20.

ROGERS, ANN, widow of the late John Rogers, M.D., at Abermeirig, Cardiganshire, on January 9, in the 87th year of her age.

STICKINGS, GEORGE, M.R.C.S. Eng., L.S.A., at Wye, Kent, on January 9, aged 73.

SUSANNI, MARIA, widow of the late Signor Carlo Ernesto Susanni, and youngest daughter of the late William Lister, M.D., Physician to St. Thomas's Hospital, at Florence, after a few hours' illness, on January 8.

WARNER, JOHN, M.D., M.R.C.S. Eng., L.S.A., only son of the late John Warner, Esq., Leighton Buzzard, at The Towers, Torquay, on January 11, aged 35.

WILSON, RICHARD, M.R.C.S. Eng., L.S.A., Medical Superintendent of the County Lunatic Asylum, Morpeth, Northumberland, son of the late Thomas Wilson, Esq., of Poulton-le-Fylde, on January 9, aged 46.

VACANCIES.

In the following list the nature of the office vacant, the qualifications required in the Candidate, the person to whom application should be made, and the day of election (as far as known) are stated in succession.

BOROUGH OF BOLTON.—Medical Officer of Health. Candidates must be duly qualified. Applications, with testimonials, to the Town Clerk, on or before January 27.

COTON-HILL INSTITUTION FOR THE INSANE.—Assistant Medical Officer. Candidates must be duly qualified. Applications, with testimonials, to Dr. Hewson, Coton-hill, Stafford.

DERBYSHIRE GENERAL INFIRMARY.—House-Surgeon. Candidates must be M.R.C.S. Applications, with testimonials, to the Secretary, on or before February 7.

GENERAL HOSPITAL, NOTTINGHAM.—Physician. Candidates must be duly qualified. Applications, with testimonials, to the Chairman of the Qualification Committee, on or before March 10.

HUDDERSFIELD INFIRMARY.—Physician. Particulars from the Honorary Secretary or House-Surgeon.

KING AND QUEEN'S COLLEGE OF PHYSICIANS, DUBLIN.—King's Professorship of Medicine. Candidates must be duly qualified. Applications, with testimonials, to Dr. G. Magee Finny, Registrar of the College of Physicians, and to the Rev. Dr. Carson, Registrar of Trinity College, Dublin, on or before February 1.

LEITH HOSPITAL.—Assistant-Surgeon. Applications, with testimonials, to Mr. Mann, 42, Bernard-street, Leith.

MEMORIAL HOSPITAL, JARROW-ON-TYNE.—Candidates must be duly qualified. Applications, with testimonials, to the Committee of Management, on or before January 21.

ROYAL GENERAL DISPENSARY, 25, BARTHOLOMEW-CLOSE.—Resident Medical Officer. Candidates must be duly qualified. Applications, with testimonials, to the Secretary, on or before January 23.

ROYAL HANTS COUNTY HOSPITAL, WINCHESTER.—House-Surgeon and Secretary. Candidates must be duly qualified. Applications, with testimonials, to the Secretary, on or before January 28.

ST. MARYLEBONE GENERAL DISPENSARY, 77, WELBECK-STREET, CAVENDISH-SQUARE.—Resident Medical Officer. Candidates must possess both a medical and surgical qualification. Personal applications on Monday, January 19.

SEAMEN'S HOSPITAL, GREENWICH.—House-Physician. Candidates must be M. or L.R.C.P. Lond. or L.S.A. Applications, with testimonials, to Kemball Cook, House-Governor and Secretary, on or before January 17.

TEWKESBURY UNION.—FORTHAMPTON DISTRICT.—Medical Officer. Applications, with testimonials, to George Badham, Clerk to the Guardians, on or before January 20.

WESTMINSTER HOSPITAL.—Assistant-Surgeon. Candidates must be F.R.C.S. Eng. Each candidate must attend (with his testimonials) the House Committee on February 10.

UNION AND PAROCHIAL MEDICAL SERVICE.

*** The area of each district is stated in acres. The population is computed according to the census of 1871.

RESIGNATIONS.

Bideford Union.—Mr. R. C. Cooke has resigned the Clovelly District; area 3602; population 749; salary £13 per annum.

Camelford Union.—The Camelford District is vacant; area 23,703; population 5914; salary £45 per annum. Also, the Workhouse; salary £10 per annum.

Chorley Union.—Mr. E. Dawson has resigned the Rivington District; area 9450; population 4628; salary £15 per annum.

Cranbrook Union.—The Benenden District is vacant; area 6600; population 1553; salary £43 per annum.

Hollingbourn Union.—Dr. David G. Browne has resigned the Headcorn District; area 8595; population 2102; salary £44 per annum.

Huddersfield Union.—Mr. James W. Booth has resigned the Huddersfield South District; salary £37 per annum; and the Woodhouse District; salary £12 per annum.

Royston Union.—Mr. Eustace J. Carver has resigned the Fourth District; area 14,508; population 4634; remuneration per case.

Thrapston Union.—Mr. T. C. Bailey has resigned the E District; area 6014; population 1159; salary £26 8s. per annum.

APPOINTMENTS.

Newton Abbot Union.—George N. Collyns, M.R.C.S. Eng., L.S.A., to the Moretonhampstead and Manaton Districts.

Shrewsbury Borough.—Mr. Thos. P. Blunt, F.C.S., as Analyst.

SUPERANNUATION ALLOWANCE.

Cardigan Union.—Mr. Wm. L. Nootl, after thirty-six years' service as Medical Officer for the First District, has been awarded a retiring allowance of £28 per annum.

LECTURES.—The annual courses of lectures at the Royal College of Surgeons will be commenced on Monday, the 2nd proximo, by Professor Erasmus Wilson, F.R.S., who will deliver six lectures on "Dermatology," and be succeeded by Mr. W. K. Parker, F.R.S., who will deliver a course of eighteen lectures on the "Structure and Development of the Skull in the Vertebrata," commencing Monday, February 16; and in June next, Professor Holmes and Mr. G. W. Callender, F.R.S., will complete the lectures—the former by a course of six lectures on "Aneurism," and the latter by three lectures on the "Formation and Early Growth of the Brain of Man." There will be no Hunterian Oration this year.

ANATOMY AND PHYSIOLOGY.—The following were the questions on these subjects given to the candidates for the diploma of Membership of the Royal College of Surgeons at the primary examination on the 10th inst., viz.:—1. Describe the fibula. With what bones does it articulate? 2. Give the dissection necessary to expose the cervical portion of the internal carotid artery. 3. Describe the mechanism of tranquil and forced respiration; of coughing, vomiting, and sneezing. 4. Describe the anterior crural nerve; enumerate its branches, and give their distribution. 5. Enumerate in their order, from the skin inwards, the parts displayed in the dissection of the perineum. 6. Describe the salivary glands and their ducts; and state the chief properties and uses of the saliva.

THE next meeting of the Society of Medical Officers of Health will be held this evening (Saturday), at 7.30 p.m., at the Scottish Corporation Hall, Crane-court, Fleet-street, when Dr. C. Meymott Tidy will make some remarks on "Butter and its Adulterations."

AT the last fortnightly meeting of the Hampstead Vestry, Dr. Heisch was appointed analyst for the parish. A committee was also appointed to carry out the provisions of the Adulteration Act.

THE *Bombay Gazette* of the 22nd ult. announces that a female medical practitioner—Miss Sarah F. Norris, M.D.—has arrived in Bombay, where she purposes practising her profession.

THE Town Council of Liverpool have agreed to pay a yearly salary of 1200*l.* to the coroner in lieu of fees, and in addition to pay the coroner's clerks and other expenses incidental to the office.

DR. TRIPE, Medical Officer of Health for Hackney, in his last report to the Hackney Board of Works, states in conclusion, "that the mortality from diarrhœa was the largest that had been known since the cholera year of 1866."

FOR some time past an association of homœopaths, herbalists, and other irregular practitioners has existed under the title of the "British Medical Reform Association." Connected with the society are a few legally qualified members of our profession, one of whom, Mr. William Hitchman, M.R.C.S. Eng., of Liverpool, was President. This gentleman has, we are pleased to hear, sent in his resignation as President, and declines to be any longer connected with the Association. It would be well if the remaining qualified members of this Association also declined to continue their membership.

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NOTES, QUERIES, AND REPLIES.

He that questioneth much shall learn much.—Bacon.

H.M.S.—The number of fever cases on Saturday last in the Royal Infirmary, Aberdeen, were twenty-two typhus, three scarlet fever, and two measles.

M.R.C.S.—We understand that the eloquent funeral sermon by the Rev. Dr. Evans, on our late lamented colleague, Dr. Webb, will, at the request of numerous applicants, be published immediately by Messrs. Skeffington, Piccadilly.

"*The Aylesbury Dairy Company.*"—Some correspondents have drawn attention to one of the testimonials published in the *Times* from Richard Gulston Wollaston, describing himself as "Examining Member of the Royal College of Surgeons, England"—a title which does not exist. He is not a member of the Court of Examiners of that institution.

W. D. S.—We are unable to state why there are so many gentlemen with "B.A." and "M.A. Cantab." after their names entering the medical profession, and so few with those qualifications from the sister University of Oxford. Such, however, appears to be the fact.

A Candidate.—The result of the Christmas examination in Arts, etc., for the diplomas of Fellow and Member of the College of Surgeons has been sent to all the candidates whose addresses were known to the secretary. The list is a long one, but if we can find space it shall shortly appear in this journal.

A Successful Candidate, St. George's.—At the primary examination for the Membership, on the 10th instant, there were two gentlemen from your hospital signing, "B.A. Cantab." after their names; one from Guy's Hospital, and one from University College Hospital.

Cuvier, Belgravia.—Mr. W. K. Parker, F.R.S., will deliver the lectures at the College of Surgeons, instead of Professor Flower, and will take for his subject—"The Structure and Development of the Skull in the Vertebrata."

Professor Flower, F.R.S.—The many friends of this gentleman will be glad to know that in a letter dated the 4th instant, on his way up the Nile, he stated that his health was considerably improved.

A Competitor.—You omitted to sign your name, or to enclose your card; nevertheless we will inform you—which we do with regret—that only *one* essay was sent in for the Collegial Triennial Prize, and one for the Jacksonian Prize, of the Royal College of Surgeons.

The Late Dr. Webb.

TO THE EDITOR OF THE MEDICAL TIMES AND GAZETTE.

SIR,—In addition to the interesting account given in your paper of the late Dr. Webb, we trust you will allow us to bear our testimony to his invaluable labours in connexion with the London Diocesan Deaconess Institution. He became Honorary Physician to the Institution at its very commencement—now some twelve years ago. During the whole of that time he was unwearied, not only in the discharge of his medical duties, but in aiding by every means in his power the Deaconesses and Sisters in their work. To the patients in our "home" he was both an able medical adviser and a Christian friend, ever ready to speak a word of comfort to the suffering and despondent. The Deaconesses themselves always benefitted both individually and collectively by his unremitting kindness and care. Not only did they find in him an attentive and skilled physician, but also a devoted friend. To replace such a friend is difficult; to give a just idea of all he was to us is yet more difficult. Nevertheless, we hope you will allow us to pay, through your columns, our tribute of affectionate esteem to the late Francis C. Webb, M.D., whose memory will ever live in our hearts. We are, &c.,

THE DEACONESSES OF THE LONDON DIOCESAN DEACONESS INSTITUTION.

50, Burton-crescent, W.C., and 12, Tavistock-crescent, W., January 13.

Treatment of Delirium Tremens by Digitalis.

TO THE EDITOR OF THE MEDICAL TIMES AND GAZETTE.

SIR,—In your No. 1212, for September 20, 1873, I read the paper on the "Treatment of Delirium Tremens by Large Doses of Digitalis." I regret I did not see the account of the inquest which led to the paper, having been told of the treatment by my then hospital sergeant in 1867, a very intelligent man, late of the — Regiment. I had to find his address, which after some time I succeeded in obtaining. Unfortunately, he had destroyed all his old papers which he kept whilst in the service. He states that whilst his regiment lay at Gibraltar in 1865 and 1866 with the 2nd Regiment, the surgeon (Mr. ——) of the latter regiment treated delirium tremens with great success by giving half-ounce doses of tincture of digitalis every four hours till sleep was induced. The patient slept from twenty to twenty-four hours, and awoke free from delirium, apparently well and quite another being. The surgeons of the other regiments did not much approve of the treatment. The last case he recollects was one of his fellow-sergeants, but the surgeon gave only two drachms every four hours; but after twenty-four hours it was given up, as it did not have the desired effect, when a few strong doses of tinct. opii induced sleep, and the patient recovered. The foregoing, copied from his letter, is nearly the same that he told me in 1867. I inquired what appeared to be the effect of the digitalis, when he said that it was sleep alone. I then said I should have thought the effect would be a very copious secretion of urine, when he exclaimed, "To be sure there was!" but that nobody paid any attention to it. I am, &c., AN OLD MILITIA SURGEON.

North Wales, January 12.

Scholarships and Examinations for Natural Science at Cambridge, 1874.

THE following is a list of the Scholarships and Exhibitions for proficiency in Natural Science to be offered at the several Colleges in Cambridge during the present year:—

TRINITY COLLEGE.—One or more of the value of about £80 per annum. The examination will commence on April 10, and will be open to all undergraduates of Cambridge and Oxford, and to persons under twenty who are not members of the Universities. Further information may be obtained from the Rev. E. Blore, Tutor of Trinity College.

ST. JOHN'S COLLEGE.—One of the value of £50 per annum. The examination (in Chemistry, Physics, and Physiology, with Geology, Anatomy, and Botany) will be in December, and will be open to all persons who have not completed a term of residence at the University, as well as to all who have entered and have not completed one term of residence. Natural Science is made one of the subjects of the annual College examination of its students at the end of the academical year in May; and Exhibitions and Foundation Scholarships will be awarded to students who show an amount of knowledge equivalent to that which in Classics or Mathematics usually gains an Exhibition or Scholarship in the College. In short, Natural Science is on the same footing with Classics and Mathematics, both as regards teaching and rewards.

CHRIST'S COLLEGE.—One or more, in value from £30 to £70, according to the number and merits of the candidates, tenable for three and a half years, and for three years longer by those who reside during that period at the College. The examination will be on March 24, and will be open to the undergraduates of the College, to non-collegiate undergraduates of Cambridge, to all undergraduates of Oxford, and to any students who are not members of either University. The candidates may select their own subjects for examination. There are other Exhibitions which are distributed annually among the most deserving students of the College. Further information may be obtained of John Pelle, Esq., Tutor of the College.

GONVILLE AND CAIUS COLLEGE.—One of the value of £60 per annum. The examination will be held on March 24 in Chemistry and Experimental Physics, Zoology (with Comparative Anatomy and Physiology), and Botany (with Vegetable Anatomy and Physiology). It will be open to students who have not commenced residence in the University. There is no limitation as to age. Scholarships of the value of £20 each or more, if the candidates are unusually good, are offered for Anatomy and Physiology to members of the College. Gentlemen elected to the Tancred Medical Studentships are required to enter at this College. These Studentships are five in number, and the annual value of each is £100. Information respecting these may be obtained from B. J. L. Frere, Esq., 28, Lincoln's-inn-fields, London.

CLARE COLLEGE.—One of the value of £60 per annum, tenable for two years at least. The examination (in Chemistry, Chemical Physics, Comparative Anatomy and Physiology, Botany with Vegetable and Animal Physiology, and Geology) will be on March 24, and will be open to students intending to begin residence in October.

DOWNING COLLEGE.—One or more of the value of £40 per annum. The examination (in Chemistry, Comparative Anatomy, and Physiology) will be early in April, and will be open to all students not members of the University, as well as to all undergraduates in their first term.

SIDNEY COLLEGE.—Two of the value of £40 per annum. The examination (in Heat, Electricity, Chemistry, Geology, Zoology and Physiology, Botany) will be on March 24, and will be open to all students who intend to commence residence in October.

EMMANUEL COLLEGE.—One of the value of £70. The examination on March 24 will be open to students who have not commenced residence.

PEMBROKE COLLEGE.—One or more of the value of £20 to £60, according to merit. The examination in June, in Chemistry, Physics, and other subjects, will be open to students under twenty years of age.

KING'S COLLEGE.—One of the value of about £80 per annum. The examination on April 14 will be open to all candidates under twenty, and to undergraduates of the College in their first and second year. There will be an examination in elementary Classics and Mathematics, in addition to three or more papers in Natural Science, including Physics, Chemistry, and Physiology.

Although several subjects for examination are in each instance given, this is rather to afford the option of one or more to the candidates than to induce them to present a superficial knowledge of several. Indeed, it is expressly stated by some of the Colleges that good clear knowledge of one or two subjects will be more esteemed than a general knowledge of several.

Candidates, especially those who are not members of the University, will, in most instances, be required to show a fair knowledge of Classics and Mathematics, such, for example, as would enable them to pass the Previous Examination.

There is no restriction on the ground of religious denomination in the case of these or any of the Scholarships or Exhibitions in the Colleges or in the University.

Further information may be obtained from the Tutors of the respective Colleges; and the names, with certificates of character, date of birth, &c., must be sent to the Tutor of the College, in each case, several days before the examination.

It will be observed that in several instances the time of the examination is the same, certain of the Colleges having combined together so as to hold one or two examinations instead of each College holding a separate examination.

Some of the Colleges do not restrict themselves to the number of Scholarships here mentioned, but will give additional Scholarships if candidates of superior merit present themselves; and other colleges than those here mentioned, though they do not offer Scholarships, are in the habit of rewarding deserving students of Natural Science.

It may be added that Trinity College will give a Fellowship for Natural Science, once, at least, in three years; and that most of the Colleges are understood to be willing to award Fellowships for merit in Natural Science equivalent to that for which they are in the habit of giving them for Classics and Mathematics.

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COMMUNICATIONS have been received from—

Mr. Soutter, London; Mr. J. W. Turner, London; Mr. F. Wade Wright, Aberdeen; Mr. Barraclough, Catford-bridge; Professor Humphry, Cambridge; Dr. Balthazar Foster, Birmingham; An Old Militia Surgeon; Mr. F. A. Mahomed, London; Mr. Gaskoin, London; Dr. McVail, Glasgow; Mr. Bradford, Harrow; Mr. T. P. Pick, London; Mr. De Meric, London; Q. X. Z.; Dr. H. J. Hardwicke, Sheffield; The Secretary of the Hunterian Society; Mr. C. J. Egan, King William's Town; Dr. Handfield Jones, London; Mr. R. Quain, London; Dr. Hughlings-Jackson, London; Dr. G. Harley, London; Mr. Jonathan Hutchinson, London; Dr. W. H. Pearse, Plymouth; Dr. Peyton Blakiston, London; Dr. G. Milroy, Richmond; Mr. Christopher Heath, London; Mr. W. Johnson Smith, Greenwich; Mr. T. Spencer Wells, London; Mr. Mac Cormac, London; Dr. Dowse, London; Dr. Sparks, London.

BOOKS RECEIVED—

Local Government Directory for 1874—James's Lessons in Laryngoscopy—Wynter's Peeps into the Human Hive, 2 vols.—Maunder's Treasury of Botany, 2 vols.

PERIODICALS AND NEWSPAPERS RECEIVED—

Grant College Students' Journal—Coventry Herald and Free Press—Le Progrès Médical—Gazette Médicale—Le Mouvement Médical—Le Bulletin Général de Thérapeutique—La France Médical—Journal of Scottish Meteorological Society—Gazette Hebdomadaire—Practitioner—Nature—Lancet—British Medical Journal—Pharmaceutical Journal—The Templar—Medical Press and Circular.

APPOINTMENTS FOR THE WEEK.

January 17. *Saturday* (*this day*).

Operations at St. Bartholomew's, 1½ p.m.; King's College, 2 p.m.; Charing-cross, 2 p.m.; Royal Free, 9 a.m. and 2 p.m.; Hospital for Women, 2½ a.m.; Royal London Ophthalmic, 11 a.m.; Royal Westminster Ophthalmic, 1½ p.m.; St. Thomas's, 9½ a.m.

Royal Institution, 3 p.m. Prof. G. Croom Robertson, "On Kant."

19. *Monday*.

Operations at the Metropolitan Free, 2 p.m.; St. Mark's Hospital for Diseases of the Rectum, 2 p.m.; St. Peter's Hospital for Stone, 3 p.m.; Royal London Ophthalmic, 11 a.m.; Royal Westminster Ophthalmic, 1½ p.m.

Medical Society of London, 8.30 p.m. Second Lettsomian Lecture, by Dr. Broadbent,—"Syphilitic Affections of the Spinal Cord and Membranes: Of the Pons, Medulla Oblongata, and Cerebellum."

20. *Tuesday*.

Operations at Guy's, 1½ p.m.; Westminster, 2 p.m.; National Orthopædic, Great Portland-street, 2 p.m.; Royal London Ophthalmic, 11 a.m.; Royal Westminster Ophthalmic, 1½ p.m.; West London, 3 p.m.

Pathological Society, 8 p.m. Mr. Lennox Brown—Cast and Photographs of Lymphoma, causing Displacement of Trachea. Dr. Goodhart—Syphilitic Phthisis. Dr. Crisp—Specimens of the Grouse Disease. Dr. Wickham Legg—Hydatids of Liver, Omentum, and Recto-Vesical Pouch; Jaundice; Xanthelasma Multiplex. Mr. Arnott—A Cyst in a Child's Scalp, simulating Meningocele.

Royal Institution, 3 p.m. Prof. Rutherford, "On Respiration."

Statistical Society, 7¾ p.m. Monthly Meeting.

21. *Wednesday*.

Operations at University College, 2 p.m.; St. Mary's, 1½ p.m.; Middlesex, 1 p.m.; London, 2 p.m.; St. Bartholomew's, 1½ p.m.; Great Northern, 2 p.m.; St. Thomas's, 1½ p.m.; Samaritan, 2½ p.m.; King's College (by Mr. Wood), 2 p.m.; Royal London Ophthalmic, 11 a.m.; Royal Westminster Ophthalmic, 1½ p.m.

22. *Thursday*.

Operations at St. George's, 1 p.m.; Central London Ophthalmic, 1 p.m.; Royal Orthopædic, 2 p.m.; University College, 2 p.m.; Royal London Ophthalmic, 11 a.m.; Royal Westminster Ophthalmic, 1½ p.m.

Hunterian Society, London Institution (Meeting of Council, 7½ p.m.), 8 p.m. Open Meeting.

Royal Institution, 3 p.m. Prof. P. M. Duncan, "On Palæontology with reference to Extinct Animals and the Physical Geography of their time."

23. *Friday*.

Operations at Central London Ophthalmic, 2 p.m.; Royal London Ophthalmic, 11 a.m.; South London Ophthalmic, 2 p.m.; Royal Westminster Ophthalmic, 1½ p.m.; St. George's (ophthalmic operations), 1½ p.m.

Clinical Society, 8½ p.m. President's (Mr. Prescott Hewett) Inaugural Address. Dr. Cayley, "On a Case of Hæmoptysis." Mr. T. Warrington Haward, "On a Case of Blood-Cyst of the Hand." Mr. Callender, "Description (by John H. Packard, M.D., of Philadelphia) of a Bracketed Splint employed in Cases of Excision or for Compound Fracture."

Quekett Microscopical Club, 8 p.m. "Insect-mounting in Hot Climates."

Royal Institution (Weekly Evening Meeting, 8 p.m.), 9 p.m. Prof. Sylvester, "Recent Discoveries in Mechanical Conversion of Motion."

VITAL STATISTICS OF LONDON.

Week ending Saturday, January 10.

BIRTHS.

Births of Boys, 1206; Girls, 1207; Total, 2413.
Average of 10 corresponding years 1864-73, 2298·9.

DEATHS.

	Males.	Females.	Total.
Deaths during the week	795	820	1615
Average of the ten years 1864-73	792·3	797·1	1589·4
Average corrected to increased population	...	...	1748
Deaths of people aged 80 and upwards	...	...	59

DEATHS IN SUB-DISTRICTS FROM EPIDEMICS.

	Population, 1871.	Small-pox.	Measles.	Scarlet Fever.	Diphtheria.	Whooping-cough.	Typhus.	Enteric (or Typhoid) Fever.	Simple continued Fever.	Diarrhœa.
West	561359	...	23	...	1	1	1	4	2	3
North	751729	...	23	3	5	11	3	3	1	3
Central ...	334369	...	14	2	...	5	...	1	2	1
East	639111	...	23	9	1	19	...	4	2	1
South	967692	...	10	5	1	11	1	5	3	5
Total	3254260	...	93	19	8	47	5	17	10	13

METEOROLOGY.

From Observations at the Greenwich Observatory.

Mean height of barometer	29·828 in.
Mean temperature	40·0°
Highest point of thermometer	53·0°
Lowest point of thermometer	30·6°
Mean dew-point temperature	35·4°
General direction of wind	S.W.
Whole amount of rain in the week	0·03 in.

BIRTHS and DEATHS Registered and METEOROLOGY during the Week ending Saturday, January 10, 1874, in the following large Towns:—

Boroughs, etc. (Municipal boundaries for all except London.)	Estimated Population to middle of the year 1874.*	Persons to an Acre. (1874.)	Births Registered during the week ending Jan. 10.	Deaths Registered during the week ending Jan. 10.	Temperature of Air (Fahr.) Highest during the Week.	Lowest during the Week.	Weekly Mean of Mean Daily Values.	Temp. of Air (Cent.) Weekly Mean of Mean Daily Values.	Rain Fall. In Inches.	In Centimetres.
London	3400701	43·6	2413	1615	53·0	30·6	40·0	4·44	0·03	0·08
Portsmouth ...	120436	12·7	69	66	55·2	25·0	42·3	5·73	0·12	0·30
Norwich	82257	11·0	53	40	47·0	27·0	37·2	2·89	0·44	1·12
Bristol	192889	41·1	145	91	50·5	30·8	40·2	4·55	1·21	3·07
Wolverhampton ...	70896	20·9	47	32	48·4	30·8	37·7	3·17	1·12	2·84
Birmingham ...	360892	46·1	263	234	50·4	32·2	38·2	3·83	0·71	1·80
Leicester	106202	33·2	57	37	47·5	29·0	36·9	2·72	0·95	2·41
Nottingham ...	90894	45·5	64	42	47·4	27·8	36·9	2·72	0·61	1·55
Liverpool	510640	100·0	392	268	50·2	30·6	39·7	4·28	0·54	1·37
Manchester ...	355389	70·2	266	212	49·0	29·0	37·6	3·11	1·05	2·67
Salford	133068	25·7	120	82	50·3	29·1	38·1	3·39	0·85	2·16
Oldham	86281	20·7	74	49	47·0	...	...	...	0·94	2·39
Bradford	163056	24·7	129	73	51·0	30·6	38·7	3·72	0·83	2·11
Leeds	278798	12·9	144	148	50·0	30·0	38·9	3·83	0·81	2·06
Sheffield	261029	11·4	291	109	49·0	31·0	38·3	3·50	0·62	1·57
Hull	130996	36·8	101	45	46·0	28·0	36·3	2·39	0·37	0·94
Sunderland ...	104378	31·6	71	37	...	...	...	...	...	...
Newcastle-on-Tyne	135437	25·4	97	95	48·0	30·0	38·5	3·61	0·91	2·31
Edinburgh	211691	47·8	141	126	...	...	...	...	...	...
Glasgow	508109	100·4	424	284	48·1	31·1	40·8	4·88	0·43	1·09
Dublin	314666	31·3	159	150	47·4	27·0	36·4	2·44	0·14	0·36
Total of 21 Towns in United Kingd'm	7618654	35·0	5450	3835	55·2	25·0	38·5	3·61	0·67	1·70

At the Royal Observatory, Greenwich, the mean reading of the barometer last week was 29·83 in. The lowest was 29·35 in. at the beginning of the week, and the highest 30·20 in. on Tuesday afternoon.

* The figures in this column for the English towns are the numbers enumerated in April, 1871, as finally revised at the Census Office, and raised to the middle of 1874 by the addition of three years and a quarter's increase, calculated on the rate which prevailed between 1861 and 1871. The population of Dublin is taken as stationary at the revised number enumerated in April, 1871.

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HOOPER'S SPIRAL ELASTIC BANDAGES.

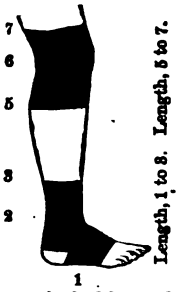
The Measures should be taken next the Skin, as follows:—

Stocking.

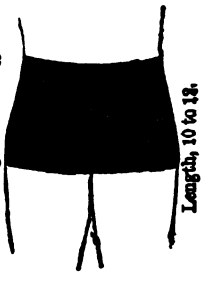
Abdominal Belt & Thigh-piece.

1, Round thickest part of instep.
2, Round ankle-bone.
3, Round small of leg.
4, Round thickest part of calf.
5, Round leg just below knee.
6, Round knee-cap.
7, Round leg just above knee.
8, Round middle of thigh.
9, Round top of thigh.
10, Round body at hips.
11, Round body at umbilicus.
12, Round waist.

The Length should also be given.



Knee-cap & Ankle-sock.



Abdominal Belt.

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WILLIAM J. VIAN, Secretary.

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ORIGINAL LECTURES.

CLINICAL LECTURE
ON A CASE OF
PERFORATION OF THE TRACHEA BY AN ENLARGED AND CASEOUS GLAND.

By HENRY THOMPSON, M.D., F.R.C.P.,
Physician to the Middlesex Hospital.

GENTLEMEN,—F. S. G., aged 4, a frail-looking but most interesting and intelligent boy, was admitted for the first time September 29, 1873. His father and mother are both delicate; the father has enlarged glands in the neck. There is no history of phthisis in the family. Patient was a first-born child, fat and well-looking after birth; but in a month he began to wheeze, and it used to be said that he was asthmatical, like his grandfather. In November, 1872, he had a low fever, from which he recovered in seven weeks. Shortly afterwards he became an out-patient at Brompton Hospital, under Dr. Powell, and was treated with steel and cod-liver oil. He then went into Oxfordshire, where he caught cold after being out in the damp marshes. At night his breathing became very bad, and his friends thought he would die. On this account he was taken home, and now (August, 1873) the dyspnœa grew worse. He continued to suffer from repeated attacks of shortness of breath, and came at last under the care of the late Dr. Murray, who thought he had an intrinsic laryngeal growth, and on this account admitted him into the hospital under his own care.

On the night of admission (September 29, 1873) he was seized with severe dyspnœa, stridor, and cough of hoarse, ringing quality, lasting ten minutes, and terminating with expectoration of mucus. On October 9, the cough was distressing, and he had an abortive attack of lividity and breathlessness. On October 23, 24, and 25, the breath was exceedingly short, but he derived great relief from the application of hot sponges to the throat. On October 30, when he was transferred to my charge, the paroxysmal attacks were much mitigated, but there were abundant sonoro-sibilant and moist râles in the chest. The hot sponge to the neck, cold affusion to the face, and a draught containing ether and ammonia, generally availed to remove or assuage the dyspnœa. During the early November he improved immensely, and was discharged on the 18th of that month. No satisfactory examination with the laryngoscope could ever be made; he required chloroform for the purpose, and chloroform he could not bear.

He was readmitted under my care, November 27, 1873, with a return of the bronchitis, but he did not appear to be suffering from much laryngeal discomfort. The old paroxysms of severe dyspnœa were gone, but still there were a few remaining chest râles, and still he held his head back as before in some degree. The glands in the neck were observed to be swollen, and in particular one large gland stood prominently forward in front of the left sterno-mastoid muscle. For a full fortnight he continued to improve, seldom suffering from any exacerbation of his ordinary dyspnœa. On December 13, however, the paroxysms began to reappear with some severity, and I added five grains of bromide of potassium to the ether draught, with the view of controlling spasm. On the night of December 13 and 14, he was obliged to sit upright in bed with his head thrown back to recover his breath; the lips were blue, and the respirations short. These attacks passed off after the exhibition of the bromide and ether mixture and the application of hot flannels. On the 15th, he was ordered liniment of belladonna to the nape of the neck and between the shoulders; the attacks became fewer and milder, but still he appeared to be in great danger. On the 17th, Mr. Morris was summoned, and all appliances were held in readiness for tracheotomy if required. At 5.30 on the morning of the 18th occurred a violent paroxysm, accompanied by lividity, hoarseness, and orthopnœa. Mr. Morris was again summoned, and soon after 8 a.m. performed the operation of tracheotomy, or, more exactly, that of laryngo-tracheotomy. (I quote from Mr. Morris's note.) A large vein taking a transverse course was divided, causing severe hæmorrhage for a short time until the ends were secured. The presence of the tracheal tube greatly aggravated the spasms, which were attended with short expiratory efforts and cough, with twenty long inspirations and several shorter ones between the acts of coughing in the course of a minute. The tube, however, was at last introduced and kept *in situ*, and at 10 a.m. the boy was breathing through it comfortably. At 11 a.m. it had to be removed again. At 3.30 p.m. the respirations were easier than they had been for the last three days—they were fifty-two in the minute; pulse 140; expectoration slight and free from blood-stains. Nothing could be seen by condensed light thrown into the opening in the trachea. Any attempt made to keep the orifice patent by means of curved wire caused dyspnœa and distress. Carbonate of ammonia (a grain and a half) and spirit of chloroform (five minims) were ordered every three hours.

On December 19, at 9 a.m., the child was sleeping quietly. At 10 the breathing became more laboured, and three ounces of brandy in the day were prescribed. In the evening he appeared to be more comfortable, and towards midnight went to sleep; the pulse marking 148, and the respirations 44.

On December 20 he looked more comfortable still; sat up and played with his toys. There were sonoro-sibilant and moist râles over the upper regions of the chest; below, at the posterior bases, dulness on percussion, with tubular breathing on the left side.

From this date to the 24th he continued to gain ground; the pulse, respirations, and temperature all declined; the percussion dulness disappeared, and along with it the tubular breathing in the same regions, although above over the scapulæ there still remained a well-pronounced bronchial and blowing character in the breath-sounds. The wound appeared to be healthy, and, save that the child was unable to breathe freely through the natural passages when the aperture was closed, everything seemed to offer the fairest promises of a successful issue, for the time being at least, when on the evening of the 24th he became drowsy, and the lips looked ominously livid. He rallied, however, on the two following days; but on the morning of the 27th he lost his appetite, grew livid again, and seemed languid and distressed in his breathing. During the visit he was seized with a severe paroxysm of dyspnœa, accompanied by a sharp cry. Ordered inhalations of nitrite of amyl. At 3 p.m., after partial recovery from this seizure, he was again attacked with another and yet more violent outbreak of dyspnœa, characterised by gasping inspiratory efforts. He died within five minutes.

Autopsy (from Mr. Sidney Coupland's report).—No examination of the brain was allowed. There were some old adhesions between the upper surface of the liver and the diaphragm. On raising the sternum, a collection of enlarged and somewhat indurated glands existed in the anterior mediastinum, mostly over the root of the right lung—one of these glands breaking down into a cheesy mass. In the posterior mediastinum there is a chain of enlarged glands from the size of a pea to that of a hazel-nut, and just above the right bronchus these glands have formed a mass of perfectly caseous matter, while the glands higher in the neck are also slightly enlarged. On laying open the trachea, the tube was found to be occluded just above the point of bifurcation by a mass of cheesy matter extending into the right bronchus, and proceeding from the largest mass in the mediastinum, which had ulcerated through the trachea at this point, the aperture measuring nearly half an inch along the axis of the tube, while for more than half an inch above the calibre of the channel was narrowed by the pressure of the gland from without. In the right lung at the apex on its inner aspect is a cavity with thick, fibrous, reticulated walls, containing cheesy matter. This portion of the lung is adherent to the cheesy mass in the mediastinum. The bronchi are slightly dilated in the upper lobe, and much thickened. The rest of the lung-tissue is more or less solidified, especially in the neighbourhood of the cavity, where it is perfectly and uniformly solid, grey, and smooth on section. The margin of the lower lobe is collapsed and somewhat congested, while the surrounding parts are emphysematous; but the tissue is otherwise healthy. At the apex of the left lung there is a mass the size of a bean, translucent on section, with a few fine opaque granulations, and containing in the centre a small caseous nodule. The rest of the lung is congested posteriorly, pale and anæmic anteriorly, with here and there a few patches of collapse. The mucous membrane of the larynx is healthy, except around the margin of the wound, where it is slightly inflamed. The incision has divided a small portion of the thyroid cartilage, the whole of the cricoid, and the first tracheal ring.

Gentlemen,—In commenting upon the case I have just detailed to you, it is not my purpose to encroach on the domain of the lecturer in medicine, or to enter on the wide

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field of laryngeal pathology at large. Let it be understood *in limine* that, although I may refer as occasion demands to books and papers on diphtheria, croup, ulceration, and the like processes incidental to the larynx, I am not directly concerned with any one of these processes, but with laryngeal spasm alone without intrinsic laryngeal disease. You must remember in reference to this point that enlarged glands were discovered in front of the sterno-mastoid muscle; that there was no pain or tenderness over the thyroid or cricoid cartilage; that the attacks were in the main spasmodic, as evidenced by their own peculiarities, and by the remedies that removed them; that the voice, respiration, and cough, though coarse and clanging in the earlier paroxysms, presented no corresponding characters of any moment during the long period of comparative repose that ensued; that whenever the boy took a walk about the ward, he uniformly and persistently held his head backwards; and that in the sitting or recumbent posture, whether simply out of breath or suffering from prolonged and distressing dyspnœa, he invariably maintained the backward inclination of the head until the agony or the discomfort passed away. From all these circumstances combined, I found it impossible to resist the conclusion that there could be no intra-laryngeal disease at all, and that enlarged glands, in the neighbourhood of the larynx and upper air-passages in general, lay at the root of the malady; and this conclusion was exactly confirmed by the post-mortem examination. You see then, gentlemen, that our case stands on a different footing from cases of œdema of the glottis, croup, diphtheria, and all the varieties of laryngitis. There the irritability originates from within the larynx: here it was conveyed from without—*either* from a distance, by propagation along the pneumogastric nerve, or along the trachea itself from the stricture at its bifurcation, *or* from the immediate surroundings of the larynx by pressure exerted on its exterior at the spot. If you adopt the hypothesis of nervous transmission, the present case in many respects bears a close analogy to the disease designated laryngismus stridulus, or child-crowing,—a disease ascribed by one of the earliest writers on the subject exclusively to glandular enlargements, but now well known to arise from a multitude of causes. If you refer the spasm to pressure upon the bifurcation, then you must regard the muscular erethism of the whole tube as simply propagated by continuity of tissue from one point in a given region to another. Lastly, immediate pressure, possibly exerted on the larynx, it is superfluous to descant upon. Take whatever view may seem reasonable to you, it is immaterial to the scope and purpose of the present lecture. Now, assuming the correctness of the above diagnosis, we had no difficulty in explaining the whole series of phenomena, with all their exacerbations and remissions, however strange it may appear at first sight that consequences so fleeting and capricious in their onset and in their departure should all be derived from one permanent cause. So long as the glandular structures remained quiescent and unaltered in volume—so long as there was no unnatural excitability either in the muscular system of the larynx or in the nerve-fibres and nerve-centres which govern the movements of that system,—so long the boy breathed with comparative calmness and ease. When, on the other hand, the glands increased in bulk from transitory hyperæmia, or when anything occurred—as many things may occur in a child—to upset the equilibrium of nerve or muscle, then came the spasm and the paroxysm of laryngeal suffocation. Many, indeed, of the minor attacks *may* have been entirely owing to the impaction of mucus at the seat of the stricture over the confluence of the bronchi, and may *possibly* have involved no element of spasm whatever. Even in some of the stronger paroxysms the same cause may have reinforced the influences of pressure, and lent its aid in the production and maintenance of spasm. Such conclusions or conjectures we are at liberty to base upon the disclosures of the dead-house, but at the bedside of the patient spasm appeared, if not to represent the sum and substance of the morbid process, at least to constitute the chief danger to life; and these views were amply verified by the whole tenor of the case and by the results of the operation.

Convinced of the accuracy of the diagnosis, while I endeavoured to control the paroxysmal seizures by means of ether, ammonia, bromide of potassium, and cold affusion, I gave iodide of iron in order to promote the resolution of the glands, or at least to check their ulterior development. At the same time, I was most unwilling to entertain the idea of tracheotomy, preferring to reserve the operation as a forlorn hope, until some imperious necessity should arise to enforce it. Such I believe to be the duty incumbent on the physician. When the fountain-head of the malady lies deep-seated, below the level of the larynx, or, in general terms, whenever it is extra-laryngeal, he cannot hope to cure the disease by opening the trachea—he can hardly hope to afford a respite wherein the disease shall undergo a cure spontaneously or otherwise; for the most part it is absolutely incurable. Why should he hasten to take a leap in the dark? Recollect that tracheotomy is by no means an innocuous operation; on the contrary, it is fraught with many dangers peculiar to itself. On this point I refer you to the works of Trousseau, Jenner, Holmes, Greenhow, Hillier, and others: they deal with the subject at large. I only quote those particular sources of danger which fall within my own range, as before circumscribed. *First* on the list stands ulceration of the trachea from the presence of an ill-constructed canula in the wound. This, however, ought never to occur with the improved appliances devised by modern surgery. *Secondly*, suppurative inflammation may take its point of departure from the lips of the wound, and descend into the cellular tissue of the mediastinum. *Thirdly*, granulations may grow exuberantly around and above the canula, and, if the canula be long retained *in situ*, may lead to stenosis and even obliteration of the larynx. *Fourthly*, the nice mechanism of the laryngeal muscles, which regulate the admission or exclusion of air, may at length be deranged or destroyed, or the muscles themselves may waste from long disease, and the paroxysms may return when the canula is removed, if ever the time arrive for its ultimate removal. *Fifthly*, mucus may accumulate in the smaller ramifications of the bronchial tubes, and collapse of the lung may ensue, with broncho-pneumonia and lobular consolidation; all owing to many co-operating causes, but primarily, I believe, and perhaps mainly, to insufficiency in the act of coughing, and that again owing to the presence of an opening in the trachea, which cannot of course execute the natural movements of the glottis. You may try to supplement these shortcomings, and to induce an artificial cough, by placing your finger on the aperture after a full inspiration just at the time when the glottis should close naturally and the chest-walls forcibly compress the air, and then by removing the finger just at the time when to the best of your judgment the glottis should reopen naturally, and the air discharge itself with an explosion. This artificial cough may be useful indeed, and even indispensable, but of necessity it falls far short of the perfection of nature with all her fine adjustments and unerring co-ordinations. Moreover, nurses and attendants on the sick are only human beings, liable to forgetfulness and to fatigue, and in a long, wearisome, and dangerous case they can hardly be expected for ever to be taking the right course at the right moment. I have done now with the enumeration of the particular risks incurred. Let me in the last place allude to a circumstance strongly suggestive of danger in a general way. Tracheotomy, in children at least, has been a sad failure in a large proportion of cases occurring in England, and its results contrast most unfavourably with those reported from the Continent, and even from Scotland. What is the meaning of this anomaly? Is it owing to the possible fact that in France and elsewhere tracheotomy is more freely and unhesitatingly carried into execution than in England, and that in consequence, while some of the survivors may really have been rescued from death by the operation, many more have simply recovered because they were not killed by it and would have done perfectly well without it? Are we in England less careful than other people in the after-management of our cases? Is it our ungenial climate that is responsible for all our misadventures? Is it possible to imagine that the English thorax and the English larynx and trachea are more feebly organised and more vulnerable than those of other nations? Can it be tamely acknowledged that English surgeons and English physicians are below the standard of their brethren abroad? Surely it would be foul heresy and treason to say this, at any rate; and as for the preceding surmises, whatever element of truth they may contain, to my mind they fail to clear away the whole of the mystery. Unexplained, and apparently inexplicable, it hangs like a cloud over all our deliberations, darkening our prospects and bewildering us at every step.

Now, gentlemen, in the face of all these perils is there not enough to make a man pause before he lays open the trachea when the paroxysms are in the main spasmodic and the lesions entirely extra-laryngeal? There is enough, indeed, to make him pause, but not enough to make him withhold his hand altogether in an emergency. Let us try to elucidate the point

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by a retrospect of our own case. After the operation it is recorded that, with the exception of one solitary experiment, every endeavour to introduce the canula only provoked intense outbreaks of suffocative dyspnœa; and the same consequences ensued on the insertion of the curved wires. Again, the boy resented strongly the application of the finger to the wound, and even the gentlest pressure made with a fold of lint on each side of the neck at a distance from the spot, with the view of closing the wound without touching it, appeared to embarrass the breathing beyond his power of endurance. Now, if this acute sensibility of the larynx and trachea, or anything like it, already existed, as there is every reason to believe, before the operation, it is impossible that the boy could have continued without surgical interference to expel the copious muco-purulent masses that now escaped through the orifice, but without the operation must have traversed the ordinary passages, and aroused *in transitu* an amount of irritation which, sooner or later, would have ended in asphyxia and death. In this connexion, bear in mind that cough and accumulation of mucus were prominent features in the case from the beginning, and assuredly not the mere consequences of the operation. The conclusion is irresistible; the boy must have died, as everyone believed who saw him in his agony.

Now mark the issue. As soon as the operation was over, and the larynx ceased to play its old part in the work of respiration, then the agony also disappeared. The boy lived and enjoyed life for nine full days, until he succumbed at last under an attack of suffocation, pure and simple, unattended or at least uninfluenced by spasm, and solely determined by the outpouring of caseous matter, and the complete occlusion of a part of the trachea already narrowed to one-half its normal capacity. But for the perforation of the trachea, he might have lived many days, perhaps many months longer. Nay, more, we may venture to affirm that, had the trachea remained imperforate, and had the offending gland at the bifurcation undergone ulterior changes and diminished in volume, or become encapsuled or imprisoned in a solid framework, like the corresponding masses discovered in the lung-tissue, the boy's life might have been saved permanently. But let that pass; all hypothesis apart, the results actually achieved alone justify, and more than justify, the performance of the operation.

ORIGINAL COMMUNICATIONS.

CLINICAL OBSERVATIONS.

By RICHARD QUAIN, F.R.S.,
Surgeon Extraordinary to Her Majesty the Queen.

Aneurism of the Radial Artery.

A case which I lately saw has brought to my remembrance one that had been under my care many years ago. As this is the only example of the same disease that has come under my continued observation, and as, moreover, I am not acquainted with the record of any similar case, I send for publication a statement of the facts taken from my note-book.

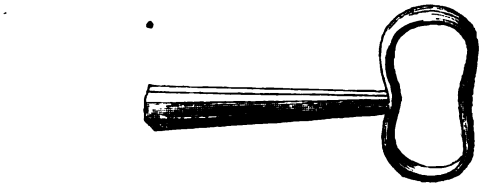
Mr. R., aged 67 years, a tradesman in respectable position, applied to me in October, 1848, in consequence of a small pulsating tumour on the wrist of the right hand. It had existed for a month, and had steadily increased in size. Mr. R. being a slender person, of very spare habit, the examination of the parts was the more easily and completely made. The swelling was about the size of the ungual joint of one of the smaller fingers. It lay on the outer and back part of the carpus, behind the first metacarpal interspace, in the hollow formed by the tendons of the extensor muscles of the thumb, which is made evident when those muscles are thrown into action. It was therefore in the position the radial artery usually occupies after it has turned backwards from the front of the forearm to penetrate from behind between the first two metacarpal bones to become the deep palmar artery.

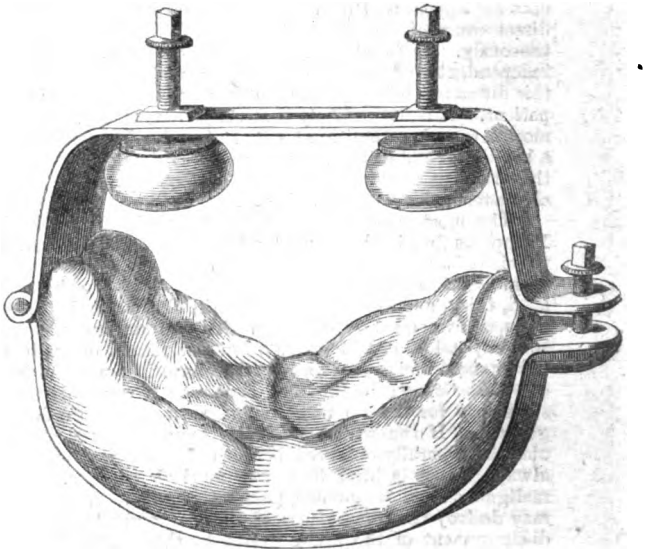
In assigning, as is virtually done here, a metacarpal bone to the thumb, that which seems to be the common though not strictly accurate custom of modern anatomists is followed.

To the touch the tumour was smooth, and equally so over the whole surface. It was very elastic, as it might be if formed of fluid within a thin covering. It was not lessened in size by pressure. Pulsation was felt equally on every part of the little swelling. It was diminished by compression of the radial artery in the forearm, and ceased when the ulnar artery was compressed at the same time. Then what was the nature of the tumour? Was it a bursa over the artery, or a protrusion of a carpal synovial membrane, or was it a dilatation —aneurism—of the radial artery? In order to aid the facts already stated, and to determine the diagnosis as far as might be done, I passed a small needle into the tumour at different points—at the middle, and at the circumference,—and only unmixed arterial blood followed. I concluded that the disease was an aneurism of the radial artery.

The treatment was twofold: first, pressure was made directly on the tumour by means of a compress fixed with adhesive plaster and bound on with a narrow roller around the hand and wrist; secondly, to that was added compression of the arteries on the forearm, with a view to diminish the force of the impulse of blood. The latter object was attained by means of a compressor for both the vessels made to suit the case. The cure was soon effected; and then neither swelling nor pulsation existed. The artery at the seat of the disease was obliterated. During the treatment, the skin, it may be mentioned, was not damaged.

The compressor with which the radial and the ulnar arteries were acted on is represented in the appended sketch. It was constructed for me by Mr. Coxeter. The drawing, recently made, has been kindly prepared by Mr. Ford.





The apparatus consists of two parts, intended to be placed, one in front, the other behind the forearm. The pieces are connected at one side with a hinge, and, when applied, they are bolted together at the opposite side with a screw. The part behind the limb is covered with a cushion, while in front two screws bearing small oval pads project. These are movable laterally, to admit of accurate adjustment to the vessels. The screws of the bolt and of the artery-pads are worked with the same key, figured above.

ALEPPO BUTTON—ALEPPO EVIL—MAL D'ALEP.

By JOHN WORTABET, M.D.

Dr. Gavin Milroy has kindly forwarded to us the following valuable observations on the curious malady called Aleppo

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Button, enclosing also at the same time the interesting paper by Dr. Wortabet:—

I beg to send to you the accompanying instructive communication which I recently received from Dr. Wortabet, to whom the profession owes the excellent account of leprosy, as seen in Syria, in a late number of the *Medico-Chirurgical Review*. It is an interesting feature of this Oriental furuncular disease that it is occasionally followed by or associated with that variety of *psoriasis* which appears in circular or rather annular patches—a form of cutaneous eruption that is not unfrequent in the early stages of true leprous disease. Whether the patches are ever at all anæsthetic, Dr. Wortabet does not mention. That the Aleppo Button is a constitutional rather than a merely local affection may be inferred from the circumstance that it seems to be more benefited by internal remedies than by external applications.

"This singular eruption, though occasionally met with in different parts of Syria, appears to be limited chiefly to the ancient Mesopotamia, which is watered by the Tigris and Euphrates. It seems to prevail most and to assume its severest form in those localities which are nearest to these two rivers. Thus it is much worse in Bagdad and Mosul, and even in Berejik and Aintab, than in Aleppo, which is supplied with water from a distant branch of the Euphrates. This circumstance has given rise to a strong belief among the natives that the cause of the eruption is to be found in some peculiar substance in these rivers, which enters into the constitution and produces the disease. It is also generally believed that foreigners residing in Aleppo may be saved from the eruption—or, at least, that the risk may be diminished—if they abstain from drinking the ordinary water of the city, and restrict themselves to that obtained from the wells. As no other obvious cause can be assigned, this may be the true one.

"The eruption may be single or multiple; and these two varieties are called by the natives the *male* and the *female*. It does not appear that in the multiple form a primary sore is the direct cause of the others, for they often break out simultaneously. It is also either *benign* or *malignant*, and this independently of its being single or multiple; the cause of this difference being probably due to the constitution of the patient. It is not unlikely that the strumous diathesis is the most favourable condition for its fullest development, and that a healthy or unhealthy state of the body during the course of the eruption may exercise some modifying influence on its character and subsequent history.

"The most common seat of the Aleppo Button is the face. It appears first in the form of a hard red papular elevation of the size of a small pea, and unaccompanied by much itching or pain. In a few weeks the sore breaks and forms a scab, which is hard, thick, and closely attached to the skin beneath. In some cases, and when subjected to irritation (manual or otherwise), it spreads, and at last increases from one-fourth of an inch to one or more inches in diameter. Its shape is generally circular or oval. Covered by its thick hard scab, it generally remains stationary for several months, and then begins gradually to get well. If the scab be violently removed, a red depressed ulcer is generally observed beneath it. When this heals, it always leaves behind it a well-marked cicatrix. In the malignant form it spreads, passes its general limit of time, may destroy the soft textures of the nose, and often produces a disfigurement of the lower eyelid by the contraction of the skin.

"There are certain peculiarities about the affection which are quite remarkable. The first is that it attacks invariably those who reside in or visit the localities in which it appears to be endemic. No native, and rarely ever a foreigner, escapes; and in the latter case, even when the visit is not prolonged for more than a few weeks, perhaps for a few days only. In children born in these places the eruption generally appears during the first dentition, and rarely, if ever, after the age of puberty, attacking almost invariably the face, commonly the cheek or the angle of the mouth. The cicatrices are borne for life; and, in the case of males, the roots of the hair having been destroyed, a bald, rugged patch disfigures the face. The parts most commonly affected in adult foreigners are the wrists, ankles, and the dorsal aspects of the hands and feet. They rarely suffer from the multiple form of the affection. It is a remarkable but well-attested fact, that a foreigner may have the eruption appear many years after his visit, in some land where it is unknown. On the other hand, young children, removed from the places where the disease exists, may escape.

"It is generally believed that the Aleppo Button takes about a year before it heals: hence the name of the *year pimple*, given to it by the natives. It may, however, get well in less than this period, or it may run a longer career. The general duration may be stated to be from eight to twelve months. It makes its first appearance usually in the autumn. It is not contagious. It does not attack the same person more than once; nor does it appear to be inoculable. I inoculated myself with matter from a genuine sore, with the hope of discovering a method by which the face may be saved from the disfigurement of the inevitable sore; but although the incisions became inflamed, and the whole arm to the axilla was painful for some days, the specific character of the sore was not developed, and the experiment failed. I should add, however, that, during a residence of many years in Aleppo, I never had the disease, so that there may have been something in my constitution which repelled the affection, and rendered the experiment abortive. I am sorry that I did not give it a more fair trial in young children. It is said that the disease occasionally attacks dogs, and that in these animals the eruption is generally in the nasal region.

"As regards its treatment, the natives generally leave the malady to take its own course. When it exceeds its usual time, or assumes a malignant form, they apply various empirical preparations which are supposed to be useful. Painting the sore with tincture of iodine has been strongly recommended by a medical man who saw much of the disease in its severer forms in Mosul. In my hands it has failed. The only thing I have found to be really useful is cod-liver oil taken internally. As the sore heals, it occasionally changes its specific character, and assumes a *squamous* appearance. Semicircular patches, elevated, red, and covered with scales, group themselves around the cicatrix of the original sore, and the disease becomes almost identical with the *psoriasis annulata* of some authors. This is perhaps the worst form in which the Aleppo Button terminates; for in this condition it is not only extremely chronic, running on for years, but, as it heals and spreads from the centre towards the circumference, it leaves a constantly enlarging cicatrix. The disfigurement of the face thus produced is very distressing, especially when the subject is a female.

"The internal use of arsenic, cod-liver oil, and iron has failed altogether; and so have the most approved external remedies. The application of caustics—chiefly the solid nitrate of silver and acetic acid—always reduced the elevated patches to the level of the skin, and destroyed for a time the formation of scales; but, although I have persisted in this treatment for months, the disease has not been permanently cured."

Beyrout.

SOME ILLUSTRATIONS OF EPIDEMICS.

By WILLIAM H. PEARSE, M.D. Edin.,
Late Government Emigration Service.

(*Concluded from page 66.*)

EPIDEMIC disease often appears in the later, cooler, boisterous, and therefore vital-depressing periods of the voyage from England to Australia, just as the epidemic deviations occur in the native of India on the first "shock" of the tonic sea-clime, when he sails from the warm, moist climate of Bengal.

Besides such phenomena as the fever of the ship *Star of the South*, and the colds, febrile diarrhœa, etc., of the *Adamant* and *Hougoumont*, sore throat is a frequent form of deviation out of normal rates in the European constitution when placed in the new and changed physical conditions involved in a voyage from northern to southern latitudes—*e.g.*, the iron ship *Accrington* sailed from Southampton to Melbourne in 1862 with 43 men, 336 women, and 57 children under twelve years. She was in south latitude in July (winter) from 40° to 45°, with a temperature varying from 50° to 60°. The winds prevailed from the north and west, and were soft and mild. In successive weeks the sore throat cases were—0, 0, 1, 3, 0, 7, 2, 0, 17, 19, 27, 5. The cases, though of short duration, were often acute: a sudden and severe shivering in the evening, followed by great heat of body and sore throat. On the following morning I should find the pulse fast, skin hot, tonsils red, swollen, and thickly studded with dirty whitish specks. By the second evening, in almost all cases, heat, fast pulse, and pain had disappeared, and the patient was again passing rapidly to health.

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The epidemic forms which I have noted—the sore throat of the *Accrington*, the fever of the *Star of the South*, the sore throat of the *Hougoumont*, the "colds" and diarrhœa of the *Adamant*—mostly occurred in the systems of young adults. Besides the sore throat epidemic, there were in the ship *Accrington* cases of insidious bronchitis, affecting the smaller air-tubes. The weekly return of such cases was about as follows:—1, 2, 3, 2, 3, 3, 3, 3, 4, 4, 0, 2. As in the more fatal and marked series of similar cases in the ship *Star of the South*, one may ask, Were they fever or bronchitis? In the *Star of the South* they were "fever" doubtless. But is there not danger to truth and method in seeking to give definition and names to groups of phenomena which it appears, however traceable may be their differences, are but degrees of a greater and common form? The facts of the epidemics I have related seem to connect, in one chain of alliance, measles, scarlet fever, sore throat, bronchitis, diarrhœa, and different types of fever: not that such a view in the least lessens the importance of description and definition, and the recognition of the differences of phenomena; but as the advances of many sides of science during this century have been mainly due to our recognition of the alliances and the "oneness of method" of phenomena apparently very remote and different, so it may not be without suggestive value to perceive those phenomena, so strongly suggestive of the near affinity of many so-called different diseases, which are presented in the somewhat experimental conditions which are found in the voyages under consideration. Diseases of a comparatively well-marked fixity of type, when viewed from the periods of individual life or of historic periods, appear on a larger view to be but changing varieties of a greater form.

Some other phenomena of suggestive interest presented. The iron ship *Oasis*, with 249 men, 76 women, 43 children between one and ten years, and 33 infants, sailed on a voyage from Calcutta to Demerara on September 2, 1865. On the 22nd an European apprentice showed measles; on the 29th a coolie child, aged 7, showed measles; no others happened. In this ship hooping-cough first appeared in the eighth week at sea; cases continued to appear in succeeding weeks as follows:—2, 1, 2, 1, 2, 3. Again, in the ship *Liverpool*, with over 500 Calcutta emigrants, one case only of hooping-cough appeared, in the fourth week from sailing. In the fourth week, also, three children showed an eruptive febrile disease, which had the appearance of measles; but none others followed. In the ship *Hougoumont*, Plymouth to Adelaide, 1866, while in 39° south latitude, 1° east longitude, and when sixty-four days at sea, there appeared the first and only case of hooping-cough in a community of 147 men, 137 women, and 51 children under twelve years.

May we not safely say that here are instances of the evolution of some so-called specific diseases? and, indeed, carrying in our minds the light of method suggested by analogies from many sides of knowledge, may it not be expected *à priori* that deviations of normal rates or diseases should evolve, with such changes in physical being and conditions as are involved in the voyages we are considering? Just as the European, when changed from the physical conditions of his habituated relations, shows those deviations or diseases to which his system is most prone, so the East Indian, under parallel changes of climate and being, shows somewhat different, but yet allied phenomena, and we have with him epidemics of ulcers, ague, various febrile cases, dysentery, diarrhœa, cholera, etc.

Crucial instances or experiments are hardly to be found; masses of facts of the class of "affirmative instances" are to be found everywhere, as apparently convincing for great errors as for great truths; but single isolated facts, placed in the light of true method, may have great place and power in showing us truth. As instances bearing out these remarks I may cite such as follow:—In the Trinidad depôt for emigrants in Calcutta there were, at the end of August, 1867, about 1000 coolies. The weather at the end of the month had been hot and calm. On the night of September 2 the wind sprang up from the north-east, cold, and with much rain; on this night a case of cholera showed, which was fatal in ten hours. I found the patient at 7 a.m., with cholera, lying in a doorway or passage of one of the sheds, where he had slept the night, exposed to the draught and cold. No other case had occurred before, and none followed. Are we compelled to suppose that he had received a certain definite poison or germ into his system? May we not, and in harmony with true method, rather suppose that the depression of his system, by the cold, etc., was the occasion of a change in his body's powers and equilibrium or co-ordination, and that thus cholera naturally evolved in the native—just as in the European, in Europe, a similar exposure would have led to a sore throat. Take another instance. The ship *Alnwick Castle* embarked over 450 coolie emigrants in Calcutta in 1861. There had been no cholera in the depôt; there was none on board during the first four weeks of the voyage. I had made a very strict rule, that no drinking-water should be issued direct from the casks; it was always first pumped from the casks into large iron tanks, where it lay more or less exposed to the air after it had been subjected to the concussion of passing through the force-pump and hose. It was the practice, also, to have the bungs of the casks knocked out a few days previous to pumping off the water. Thus the water issued to the coolies for drinking was well freed from smell and gas. On a certain morning in the fifth week, the water having been served at 7 a.m., I found a man with symptoms unmistakably choleraic: he was cold, cramped, somewhat collapsed, and lay in that fixed position and expression so characteristic of the native in cholera. I found that water that morning had for the first time been issued direct from the cask. But a large number of the people must have drank of the water, yet only one cholera-like case showed. Two hypotheses arise: Did he imbibe a stray "germ" or particle of cholera "poison"? or is it not wiser to say, hypothetically, that the unaccustomed foul water was the occasion of a change or depression in his system, and that cholera-like symptoms naturally evolved? Had such an issue of foul, unaccustomed water occurred earlier in the voyage, it is likely that many would have shown cholera. The Calcutta coolie ship *Arabia* reached St. Helena in forty-nine days, where we refilled our water-tanks from the mountain-spring source of that island. The first night after using St. Helena water there occurred a great number of cases of bowel complaint, and an increase in the number of diarrhœa cases lasted many days. The weekly return of diarrhœa cases for the entire voyage from Calcutta to Demerara was—33, 12, 10, 10, 6 (Cape), 9, 6 (St. Helena), 26, 13, 6, 1.

It has been a prevalent view to attribute the cholera outbreaks of Calcutta emigrant ships to the foul waters, muddy banks, crowded ships, etc., as assuming hypothetical germs or poisons as "causes"; but such method can hardly be extended as an explanation of the epidemics of ulcers, ague, bronchitis, etc. It has always appeared to me that epidemics in ships, like the sporadic on shore, lead the mind away from special "causes," to a view which sees epidemics as natural periodic recurrences, as "affections" of matter in its form of living beings.

Having seen, then, instances of the evolution of some of those forms of disease which have a certain historic fixity of type, and which have the property of communicability, it may be interesting to view some instances of prophylaxis or prevention. The study of prophylaxis opens very varied directions; any generalisation, to approach completeness, must embrace phenomena which at present appear divergent, if not contradictory. The most complete prophylaxis is when the system has once in its individual life taken on certain changes, and exhausted thereby its natural capacity for any future change of that kind. Many of the great epidemic diseases can thus occur but once in the same system; but less degrees of allied or identical changes are equally powerful as preventives—*e.g.*, the vaccine vesicle against small-pox; mere change of place often supplies the co-ordination, so that yellow fever and cholera cease; shifts of wind and rain have co-ordinated against yellow fever; what can hardly be effected in several generations by acclimatisation can be reached in some instances at once by changing the composition and state of the body. Such are some of the directions which open in a view of prophylaxis; but I propose, not an attempt to grasp the whole subject, but to cite some suggestive instances—*e.g.*, in the ship *Tarquin*, Plymouth to Adelaide, 1866, with 300 emigrants, a case of small-pox showed the day after sailing. No other case followed. That a large number of unprotected existed in the ship is proved, in that I made 136 successful vaccinations during the first ten weeks of the voyage. Necessarily I used every available means of isolation; but it cannot be supposed that the isolation caused our exemption from a general spread of the disease. All that we can venture to say is, that with changing clime and latitude the systems of the people acquired a prophylactic state or co-ordination against small-pox as communicable. Certain it is that some broader basis must b

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given to explain our freedom from the spread of small-pox than the isolation of the patient. This rapidly acquired co-ordination against diseased rates was seen in the ship *Liverpool*, where, with 532 souls, of whom sixty-two were under ten years of age, one case of hooping-cough showed in the fourth week, being the only case during a voyage of fourteen weeks. Why, again, in the ship *Oasis* did not the measles spread, where, with a large number of children, two cases only happened? Why was the East Indian coolie comparatively exempt from cholera in Demerara, whilst the negro was dying in large numbers around him? It can only be replied that the change from the East to the West Indies had so co-ordinated his physical being that the change into cholera could not occur—just as the changing latitudes of the voyage had co-ordinated the body's composition and relations so that hooping-cough and measles could not occur.

The history of the progress of knowledge shows that single facts, seen in a right method, are a light to a whole realm of truth; and it may be that some of the facts I have adduced, drawn from the experimental conditions of the comparative isolation of numbers of individuals on shipboard, may be applied to the greater phenomena of epidemics among mankind at large.

It would be premature to class epidemics as one of the "affections" of matter and living forms. Nevertheless, the "unity of method" which has developed in many sides of knowledge leads us more in this direction of generalisation than in the old one of definition and "specific" difference; whilst a philosophic hygiene leads not only to the removal of varied poisons, depressions, etc., but to efforts at co-ordinating the body's composition and relations so that deviations of rate or disease cannot occur.

Plymouth.

REPORTS OF HOSPITAL PRACTICE IN MEDICINE AND SURGERY.

HOSPITAL FOR THE EPILEPTIC AND PARALYSED.

A SERIES OF CASES ILLUSTRATIVE OF CEREBRAL PATHOLOGY: CASES OF INTRACRANIAL TUMOUR.

(Under the care of Dr. HUGHLINGS-JACKSON.)

(*Continued from page* 6.)

Remarks on Case 9.—A very slow onset of hemiplegia—that is, an onset so gradual as in this case—is very rare. It points almost with certainty to tumour. I had no doubt there was tumour in this case, notwithstanding the absence of optic neuritis. Slow onset of hemiplegia is almost decisive of tumour. But before I pass on to other topics, let me remark that the sudden onset of hemiplegia does not negative tumour. Plainly it does not when the paralysis follows convulsion, for in these cases there is often syphiloma of the brain-surface. But hemiplegia will occur suddenly from tumour without prior convulsion; in some of these cases there is hæmorrhage from the tumour. Of course a slow onset does not point to the *nature* of the tumour. On the contrary, a *rapid*, especially an apoplectic onset, would, in a patient who had optic neuritis, point to the *nature* of the tumour—it would point to a vascular glioma.

As to the nature of the tumour there was no room for doubt. As in Case 2 (*Medical Times and Gazette*, November 30, 1872, p. 597), the existence of phthisis made the diagnosis of the *nature* of the growth.

I confess that in Localisation I did not make a correct diagnosis: I thought the tumour was in the left corpus striatum. The reader will observe that the face was paralysed on the same side as that on which the arm and leg were weakest; and so far the case accorded with the results of lesion of the corpus striatum. It is well known that in hemiplegia from disease of the pons varolii the face is usually paralysed on the side of the lesion, and the limbs on the side opposite—there is *hémiplégie alterne*. The fibres of the facial (portio dura) are caught in the pons before they decussate; those of the limbs are of course caught at the same spot long after their much lower decussation. Brown-Séquard has, however, pointed out that a lesion in the upper part of one side of the pons will catch the fibres of the facial *after* their decussation, and thus the face, arm, and leg will be palsied on one side—the side opposite the lesion. This case shows the correctnesss of his remark.

What misled me further was the onset (August 15) of a defect of talking, which during the patient's life I ascribed to disease of the cerebrum, *near to* the corpus striatum. I confess I do not even now understand how *such* a difficulty of talking can have been caused by disease of the pons varolii, although the side diseased was the left. The brain was examined by Dr. Gowers, and thus I am quite certain that no disease near to the left corpus striatum was overlooked, which careful examination could have disclosed. It is a matter of great satisfaction that the patient's manner of talking was properly described by a good observer. Hence it is of less consequence whether the case be called one of aphasia or not.

Now, of course, I see quite well that there were other symptoms which should have made me pause in the diagnosis of disease near to the corpus striatum. There was the deviation of the eyes. In disease of the corpus striatum (a grave lesion) there occurs lateral deviation of the two eyes, but the eyes turn them towards the side of the lesion, not from it, as in Case 9. It is better, however, to say that in the lateral deviation from lesion of the corpus striatum the patient cannot turn the eyes to the side paralysed. In Case 9 the patient could not turn them to the side *not* paralysed, or rather to the one least paralysed. Moreover, in cases of disease of the corpus striatum the deviation is usually transitory, unless the lesion be *very extensive indeed*. In Case 9 it was persistent. This is the only case in which I have known lateral deviation of the eyes in a chronic case. This is the only case of disease of the pons varolii in which I have encountered lateral deviation of the eyes. I have, of course, several times seen palsies of the sixth nerve, or of both of them, in cases of disease of the pons; but lateral deviation, as are other conjugate deviations, is a symptom of a very different kind from paralysis of a nerve trunk—it is due to lesion of a centre where *complex* movements are represented. I need not pursue this subject here. For a knowledge of such deviations, Vulpian's "Physiology of the Nervous System" and Prevost's monograph on "Conjugate Deviations of the Head and Eyes" should be studied.

MIDDLESEX HOSPITAL.

CASE OF SPINAL HEMIPLEGIA.

(Under the care of Dr. GREENHOW, F.R.S.)

THOMAS C., aged 36, butler, a married man of temperate and industrious habits, was admitted into Founder ward on January 20, 1873.

The family history was quite satisfactory as regarded diseases of the nervous system, but patient's mother had suffered much from rheumatism, and two of his brothers had died of phthisis. The patient had enjoyed good health until the autumn of 1871, when he spent several months at the sea-side, where he slept for some time in a damp room. He was then attacked by pains across the shoulders and back, upon which supervened numbness and loss of power in the right hand and arm. The numbness commenced in the tips of the fingers and gradually crept upwards to the elbow. The attack was treated as one of rheumatism, and in about a month he got rid of the pain in the back and shoulders, and was able to resume his occupation; but he never quite lost the numbness and feebleness of the right hand. About six weeks before his admission into the hospital, he went out on a cold day without his great-coat, and shortly afterwards experienced a return of the pain in the shoulders, which now extended round underneath the arms as far as the anterior folds of the axillæ, and was presently followed by a sense of constriction round the body.

On admission, the patient complained of pain in the nape of the neck and in the upper dorsal vertebræ, occasionally extending to the shoulders and down both arms as low as the insertion of the deltoid muscles. On firm pressure, slight tenderness was detected at the sides of the five or six upper dorsal vertebræ, but the tenderness was most marked at the left side of the fifth vertebra. Patient kept his head fixed in a position slightly inclined forwards and towards the left shoulder, and could move it very imperfectly either backwards or forwards. Could rotate it slightly towards the left, but

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could not move it beyond the median line in the direction of the right shoulder. He complained of a feeling of tightness round the front of the chest just below the axillæ. The grasping power of the right hand was much enfeebled, as compared with that of the left; common sensibility was also greatly impaired in the right hand and forearm. He could move the hand and arm freely in every direction, but could not pick up a pin or any other small object with the fingers of the right hand unless he looked at it; and when his eyes were covered, he could not tell either the shape or nature of any object—such as a watch or pocket lens—which was placed in his hands. Common sensation was also impaired between the shoulders over a space corresponding to the seat of pain, and this anæsthesia was most marked towards the right side. Patient stated that he had lately experienced also slight numbness in the right lower limb, and had difficulty in walking and in getting in and out of bed. He walked in a staggering, uncertain manner, and raised the right foot imperfectly from the ground; the movements of the left foot and leg appeared to be normal. There was slight internal strabismus of the left eye, but the sight was unimpaired and the pupils were equal. He had trouble in micturition, being sometimes obliged to strain in order to empty the bladder, whilst at other times his urine dribbled away involuntarily. Urine: specific gravity 1009, faintly acid, not albuminous.

He was ordered to take a draught containing half a drachm of syrup of iodide of iron and two grains of iodide of potassium three times a day, and to have tincture of iodine painted twice daily over the cervical and six upper dorsal vertebræ. The catheter was also directed to be used twice daily.

March 6.—Patient considered himself decidedly better. The pain in the spine and shoulders had greatly decreased; he could walk much more steadily, though he still somewhat dragged the right foot; could move his head freely from side to side, and could raise it upright, but was unable to bend it backwards; the numbness and loss of power in the right hand remained as before.

15th.—Improvement continued; use of catheter only occasionally needed. Five minims of solution of strychnia, ten minims of syrup of iodide of iron, and one grain of iodide of potassium were added to his draught, and the application of tincture of iodine over the neck and back were ordered to be continued.

He remained in the Hospital another month, and, being then decidedly better, was sent into the country. On his return home he was found to have lost ground, and he was readmitted into the Hospital on July 8.

He now complained of stiffness in the back, which disabled him from sitting up in bed with his limbs straightened out. Grasping power and sensation in the right hand still greatly impaired, so that, although he knew when an object was put into his hand, he could not distinguish its shape, size, or temperature. The numbness in the fingers of the right hand continued, and there was also numbness of the right leg and foot, increasing from the lower part of the thigh towards the toes. He walked rather unsteadily, keeping his legs apart and slightly halting upon and dragging the right foot; could stand for a few seconds with his eyes closed, but if he persevered in doing so soon began to stagger, and would have fallen if not supported. There was slight internal strabismus of the left eye, as mentioned before, but his sight continued perfect. He could move his head freely from side to side; occasionally required to use the catheter, which he could now pass for himself. Urine: Specific gravity 1015, alkaline, not albuminous. Bowels constipated.

The constant current was used to the muscles of the right shoulder and arm, and a few days later was applied on alternate days to the muscles of the lower right limb likewise. The draught containing solution of strychnia and syrup of iodide of iron was also ordered to be resumed.

Sensation in the right hand manifestly improved under the application of galvanism. On July 29 he was able to distinguish the shape of a pocket lens placed in the palm. He now, however, complained of slight numbness in the left foot and leg, and of a sensation in walking as if he trod upon something placed under the inner side of the arch of each sole. He shortly afterwards left the Hospital, and has not returned.

It has been officially announced that during the week ended on the 10th inst. three cases of cholera occurred in the city of Rotterdam. Of these, two were fatal.

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Medical Times and Gazette.

SATURDAY, JANUARY 24, 1874.

THE DIETARIES OF SCHOOLS FOR THE UPPER CLASSES.

In saying a few words on the above subject, we do not intend to deal so much with the question of the exact proportions of various kinds of food which should enter into the diet of the young, as to offer some general observations about the matter, in the hope of obtaining the correction of certain abuses which we believe to exist. In the last few years numerous large schools for boys (the subject of girls' schools we shall not now discuss) have sprung up in all parts of England, in addition to the older "public schools," so that the number of boys of the upper and middle classes assembled away from their homes under the superintendence of schoolmasters is very large indeed. Now, as it is from them that the future intellectual and professional strength of the nation must mainly be recruited, it will be admitted on all hands that their physical development, and consequently their *mens sana*, must depend much on the nutriment they get, at the time when growth and tissue-changes are at their height, being good not only in quantity but in quality.

Boys at the kind of schools we are here speaking of take their meals on two different systems—either in a body in one large hall, or in smaller companies in the different masters' houses to which they belong. Both systems are necessarily imperfect, and the former, it seems to us, most so, for the following reasons:—First, it places all the individuals more or less on the same level, and merges the particular in the general; so that the boy of strong constitution and hearty appetite gets the same amount of food as the weaker one who eats little, but requires what he has to be of better quality, and who is unable to get on with fat and the coarser parts of meat to which the other makes no objection. Where large numbers are catered for, many also get their food lukewarm, or even cold, and the last helped have to hurry, so as not to keep the others waiting. There is also (and this is a most important point) less personal supervision by the masters, who either dine at a separate table or else merely act as carvers, or

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even delegate the whole supervision to a housekeeper or steward. Thus there is more chance of bad food passing unchallenged than in smaller households, and less of redress for the just complaints of the boys about it; and we have reason to know that this is no imaginary evil. On the other hand, in the house system of meals, if only the master or his wife look after things, as they should do, themselves, the appetite and the idiosyncrasies of each boy can be to some extent considered, not only with advantage to him, but with more economy and less waste as far as they are concerned.

The meals which a boy at school generally gets are four in number—breakfast, dinner, tea, and supper. The first and third are much the same, and consist of tea, coffee, and bread (or rolls) and butter. Of the tea we can only say that it is often weak and watery, while the coffee would hardly be recognised by a Parisian as answering to its name. Milk, the most important liquid that young people take, is supplied in very insufficient quantity, and not always undiluted, but then its value as a food is not yet appreciated by the public at large. Eggs and preserves are usually allowed to be supplied by the boys themselves, but we have known masters make most unwarranted objections to anything in the shape of meat at breakfast.

At dinner—often a very hurried meal—there are meat, vegetables, and pudding, with perhaps soup on alternate days, and beer. It is doubtful, judging from our own experience at a large public school some years ago, and from recent information, whether enough attention is paid to the quality of the meat. It is often tough, ill-cooked, or, in the case of boiled beef, extremely salt. There is seldom any tendency to overhelp, but rather the other way, so that we have known several instances in which it has been necessary to supplement a most insufficient dinner by a visit to the pastrycook. This ought never to be the case. It is wrong medically, because it forces the hungry stomach to substitute improper for wholesome food, and morally, because when a high price is paid for education (using the word in its comprehensive meaning) the boys ought to be abundantly supplied. The puddings and pastry are often not such as would pass muster at home, and sometimes are so unpalatable—to use no worse expression—that we have known a whole table of forty boys refuse to touch that part of their dinner. There is a natural craving for this kind of food in most young people, and there is a sufficient number of wholesome and inexpensive recipes known to cooks to satisfy this want in a rational manner. One of the worst features of some school dinners is the (so-called) beer. If ever a medical analyst were required to determine the ingredients of a doubtful liquid, it is here, and it is a subject worthy of considerable attention. We have seen beer—or "swipes," as it is called—put week after week before public schoolboys, which a cabman would disdain to touch. To tea, as a meal, the same remarks apply as to breakfast; and the same may be said of supper, only that here the cheese is often poor and soapy, and hence indigestible, and unfit for those whose occupation is so largely mental; and the butter might possibly be improved.

Boys are not usually very fastidious; they dislike complaining, and often let pass without a murmur hardships which they should not have been called upon to bear. In the present age, when the struggle for existence makes itself felt in school-days as well as in after life, and while every nerve is often strained in competition either in the class or form, or in scholarship-getting, or in athletic sports, to a much greater degree than formerly, the dietaries of schoolboys require to be carefully arranged. Masters should take an interest even in the food their pupils eat, and pay more regard to the weakly and delicate ones and to their so-called fancies, which often arise from their natural instincts of what to take and avoid. It is probable that many boys are never well at school because they fail to obtain the sort of nourishment they require; and the marvellous way in which boys, who were puny and ailing at school, shoot up into robust men if they go to Oxford or Cambridge, where the fare is excellent, seems a strong argument in favour of our view of the subject.

The power of the medical profession to change any existing arrangements in school dietaries is so small, and its members are so seldom, if ever, consulted in the matter, that we offer no apology for discussing it as we have done. The difficulties which the advocates of the study of natural science have had to encounter in order to obtain its introduction into the ordinary curriculum, and the unscientific arrangement of some school dietaries, would lead us to believe that some knowledge of physiology would be as useful to the masters as to their pupils.

THE ARTIFICIAL PRODUCTION OF RICKETS AND OSTEOMALACIA.

VERY much has been worked and written upon the pathology of rickets, and not the least interesting and important part of what has been satisfactorily ascertained respecting it relates to the chemistry of the morbid process. Both *intra vitam* and *post mortem* many valuable observations have been made and recorded in this direction. Amongst other methods, experiment has been frequently resorted to; and it is to this that we would here especially refer, in connexion with an exceedingly important communication which has quite recently appeared from Heitzmann, of Vienna, on the "Artificial Production of Rickets and Osteomalacia" (*Wiener Allgemeine Medizinische Zeitung*, 1873, No. 45).

Nearly forty years ago, Guérin fed puppies on a purely flesh diet, with the effect of speedily inducing diarrhœa, wasting, and rickets. From this experiment Guérin was led to refer the occurrence of rickets in young infants to premature weaning and feeding on meat. A few years afterwards, Chossat found that he could make the bones of pigeons fragile by feeding the birds on wheat only; and Bibra afterwards confirmed the accuracy of this result. Only last year, Wegener published an account of the effect of the internal administration of phosphorus on osseous growth, and therein described how, in fowls, rickets, precisely resembling the disease in man, results from the simultaneous exhibition of phosphorus and withdrawal of lime salts from the food.

The experiments of Heitzmann, which we have now to describe, were prompted not so much by the preceding results as by the facts, now generally known, that lactic acid is demonstrable in the urine of the subjects of rickets and osteomalacia (mollities ossium), and that in the latter disease the same organic acid can be extracted from the bones after death. Heitzmann accordingly fed various animals on a special, well-mixed, abundant diet, to which a certain amount of lactic acid was regularly added; or used instead the subcutaneous plan of administration. Some idea will most readily be obtained of the system of experiment pursued and the results obtained by a brief detail of the history of the first animal selected for observation. A large young hound was well fed on milk and white bread, potatoes, fat and meat, and to each meal a certain amount of lactic acid was added. The German black bread and bones were strictly forbidden. At the same time, about a dozen syringefuls of a slightly sour solution of lactic acid were injected daily under the skin. Within a week morbid phenomena were observed. The muscles of the extremities and back began to twitch during sleep—sometimes so violently as to waken the brute. Diarrhœa immediately afterwards supervened, and the dog became thin and dull. In a fortnight from the beginning of the experiment the ends of the long bones and ribs were perceptibly swollen, and the limbs had commenced to bend. The latter condition was extremely marked in five or six weeks. Some of the long bones were sigmoid, and the hound presented the legs of a badger-dog. From this time, or a week or two

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later, a remarkable change happened to the diseased bones. In spite of the continued lactic-acid treatment, the swelling of the bone-ends began to disappear, and the curves on the shafts decidedly diminished. The animal was subject, as before, to diarrhœa, and it retained its wasted appearance, but during the remaining nine months of its life the signs of rickets did not return. When it was at last killed, a most interesting condition of the bones was discovered. The compact portion of the long bones was reduced to about one-third its normal thickness, and the whole tissue presented the characters of osteomalacia. Such is the history of the first subject. Fourteen more animals—dogs, cats, rabbits, and a squirrel—were similarly treated, except that the injection-method of administration was finally relinquished for the exhibition of the lactic acid among the food. The history of these animals varies in but few particulars from that of the first dog, with the exception of the rabbits, which very strangely died emaciated, but without decided affection of the bones. Some of the subjects were killed at an early stage, when the rickety symptoms and signs were marked, and Heitzmann was able to confirm by histological examination the accuracy of his diagnosis of true rachitic disease.

Heitzmann arrives at conclusions from these experiments which must be considered of the very greatest importance as soon as they have been fully confirmed by other pathologists. The continued administration of lactic acid, he believes, to carnivorous animals is capable of producing, artificially, first rickets and subsequently osteomalacia. According to Heitzmann, these two diseases have been proved by his experiments to be identical processes. Rickets is produced by lactic acid while the animal is young; osteomalacia when it is older. The correspondence of this result with the occurrence of the respective diseases in the human child and adult is certainly striking. Heitzmann goes farther; and here, perhaps, fewer of us will feel inclined to follow him. He adds, "the number of those diseases whose cause, whose essence, we accurately know is certainly now increased by two, and these are rickets and osteomalacia."

There remains to be given a most curious appendix to the history of those experiments of Heitzmann's. The woman in charge of the animals under investigation, or who at least mixed and gave for many months the food containing the lactic acid, has lately been delivered in the eighth month of a female child, which died a few minutes after birth. Its body presented the characters of congenital rickets, in the highest degree pronounced!

MERCURY IN SYPHILIS.

The paper recently read before the Hunterian Society by Mr. Hutchinson, on the giving of mercury in syphilis, is one which merits the most careful attention of the profession, and this, too, all the more that it contains a kind of retractation of former opinions more opposed to mercury than those now entertained by the author. Unfortunately, the constant dinning of the evils of mercury into the ears of the public has not been without effect, and a kind of dread of its evils has arisen in men's minds, which experience does not justify. Not every venereal sore is syphilitic; not every syphilitic sore is venereal. The former proposition gives us the clue to the bias against mercury, for it was used in olden times not only against all kind of venereal sores, but even against gonorrhœa. The latter commends itself mainly to medical men who run risks of infection to which the ordinary public are not liable, and to whom, therefore, personally the proper cure of syphilis is of the first importance. Again, in dealing with syphilis, men too much lose sight of the fact that there are slight cases of syphilis, just as there are severe cases—that certain cases tend to get well, just as certain cases tend to go from bad to worse; but, as pointed out by Mr. Hutchinson, even the worst cases may be benefited by mercury if judiciously given. In the giving of mercury, blue-pill has had too much place. As a preparation it is bulky, and it tends when long given to upset the stomach. Syphilis is really (as shown by Mr. Hutchinson) a kind of fever, lasting, however, much longer than do ordinary fevers—sometimes even a lifetime. If, therefore, we are to benefit our patients, we must be content to give mercury in such a way as will least interfere with nutrition—to give it, therefore, in small doses, and over a lengthened period of time. In this way perhaps the liquor hydrargyri perchloridi, in drachm doses, is one of the best modes of exhibition, for this contains only a very small quantity of mercury, and, given in a vegetable infusion, is often of the utmost benefit. But in many cases there can be no doubt whatever that inunction, or the vapour-bath, suits better than any other mode of giving the remedy; and a paraphrase of the old rule—viz., the stomach for food, and the skin for mercury—might be held to be the best mode of solving the difficulty.

As to the good effects of mercury, if skilfully given, there is nowadays such a consensus of opinion that no wise man would attempt to dispute it any more than he would dispute the value of iodide of potassium in the later stages of the malady. But the word "skilfully" implies much: it means sometimes giving large doses of one form of the remedy, sometimes small doses of another. That mercury is truly curative in many cases of syphilis, we firmly believe; nor, on the whole, are we inclined to quarrel with the following categorical conclusions by Mr. Hutchinson, namely:—

"That mercury is probably a true vital antidote against the syphilitic virus, and that it is capable of bringing about a real cure. That, in practice, a good many cases are really cured by mercury, the cure being proved by the restoration to good health, and in some cases by renewed susceptibility to contagion. That the probability of cure depends upon the stage of development attained by the disease when the remedy is resorted to, and the perseverance with which it is used. That, in order to secure the antidotal efficacy of mercury against syphilis, it is desirable to introduce a considerable quantity into the system, and to protract its use over a very long time. That ptyalism and other evidences of the physiological action of mercury, so far from being beneficial, are, if possible, to be carefully avoided, since they prevent the sufficiently prolonged use of the remedy. That in cases in which the patient shows an idiosyncrasy peculiarly susceptible to mercury, the indication is to reduce the dose rather than omit the drug. That it is impossible to begin the administration of mercury too soon, and that it should be resorted to without loss of time in all cases in which a chancre shows a tendency to indurate. That many cases of indurated chancre treated early by mercury never show any of the characteristic symptoms of the secondary stage. That in other cases of mercurial cure of the chancre in which yet secondary symptoms do occur, they are usually milder than if allowed to develope without specific treatment. That when mercury does not wholly abrogate the secondary stage, it possesses a remarkable power in delaying it. That delayed outbreaks of secondary syphilis are to be regarded rather as proof that the administration had not been sufficiently persevering than that the remedy was not efficient. That it is probable that the risk of tertiary symptoms is in ratio with the severity and prolonged duration of the secondary stage. That there are some grounds for believing that the tertiary symptoms of syphilis are both less frequent and less severe in those who have been efficiently treated by mercury than in others. That mercury cautiously given does not, in a great majority of instances, do any injury to the general health, and that its local inconveniences may usually be prevented. That the doctrine of the real antidotal character of mercury in respect to syphilis ought to lead to much more prolonged administration of it, with the hope of destroying utterly all lingering germs of the malady. That most collected statistics as to duration of treatment and freedom from relapse are misleading, and worse than useless, because usually the treatment was far too short to be effectual. That it has not yet been proved that there are any special forms of syphilitic disease in which

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mercury ought to be avoided, although, as a general rule, it is acknowledged that it must be used with more caution in all forms which are attended by ulceration than in others. That iodide of potassium possesses little or no efficacy against either the primary or secondary forms of syphilis. That the efficacy of mercury is often most signally proved in cases which have utterly resisted the action of iodide of potassium. That it does not much matter whether mercury is given by the mouth, by inunction, or by the vapour-bath, provided that, whichever method be selected, care be taken to avoid salivation, purging, etc. That the doses usually resorted to for internal administration are for the most part too large, and thus often necessitate premature discontinuance of the remedy. That, if one method of administration does not succeed satisfactorily, another should be tried; and that in no case of difficulty should the vapour-bath be forgotten."

Each of these, however, demands a separate discussion.

THE WEEK.

TOPICS OF THE DAY.

THE Sanitary Committee of Brighton submitted a special report with the applications for the appointment of medical officer of health to the Town Council at their meeting last week. Considerable interest was felt in the proceedings. There were four candidates. The contest, which lay between Dr. Taaffe and Dr. Ross, was a severe one—twenty-two voting for, and twenty-one against, Dr. Taaffe. A formal resolution was then passed, appointing Dr. Taaffe to the office at a salary of £200 per annum. It is satisfactory to state that this long-standing question has at length been settled. It is somewhat remarkable that the inhabitants of an enlightened town like Brighton should so long have delayed an appointment to an office essential to the interests of a fashionable watering-place. However, let bygones be bygones.

At the last meeting of the Ovenden Local Board, the medical officer's report stated that he was unable to furnish statistics of deaths in the district during the month, in consequence of the registrar having refused to supply the Board with them unless he was paid. There had been no new cases of enteric fever, or deaths resulting therefrom, so far as he could ascertain. The Board directed the clerk to write to the Local Government Board to ask whether it was or was not the duty of the registrar of births and deaths to furnish returns of deaths in the district for the use of the Board, and if not, to ask how these returns were to be obtained. We may ask *en passant* whether the guardians have not a legal adviser to whom they could have applied? In such an emergency, reference to the Registration Act would have supplied them an answer.

At a special meeting of the Vestry of St. Marylebone, last week, the importation of adulterated food, which has been a subject of correspondence between the Treasury, the Board of Trade, the Commissioners of her Majesty's Customs, and the Vestry, was discussed. After the reading of the correspondence, the following resolution was unanimously adopted:—"That the communication from the Secretary of State be acknowledged with thanks, and more especially for furnishing the copy of correspondence relative to the importation of spurious and adulterated tea; and that the opinion of the Vestry be conveyed to him, that although, no doubt, many practical difficulties may exist in the examination of teas as imported, yet they consider that the Government might frame regulations which would protect the public to a very great extent, and prevent, in a great measure, the delivery from the Customs of adulterated tea and other produce." A general feeling prevailed that pressure should be put upon the Government to protect the public and the small traders from the extensive adulteration of food of foreign produce imported into this country, otherwise the Adulteration of Food Act was little better than a farce, the guilty parties escaping, whilst the unoffending were made amenable to the penalties of the law. We are glad to notice that the St. Marylebone Vestry have adopted the suggestions which have been repeatedly made in this journal. It is idle and unjust to make tributary streams amenable for the impurities which are supplied from the fountain.

Dr. Charles E. Buckingham, of Boston, in his address to the Massachusetts Medical Society in June last (being the annual discourse before the Society), "On the Proper Treatment of Children," stated—

"The population of Massachusetts at the time of taking the last census (1870) was 1,457,351. There were born of living children in the years 1865 to 1870, 209,989. There died in the same years of children under three years of age 47,671; and of these 31,326 were less than one year old. There were living in 1870, 95,346 children under three years of age—that is to say, that in those six years there died of children under three years old only two less than one-half of the number living in 1870; and of these more than six-tenths died at the age of less than one year. Of 9873 children who died in Massachusetts in 1870 under the age of five years, 1914 were reported as by cholera infantum, 477 by convulsion, 298 by diarrhœa, 273 by dysentery, 110 by enteritis, 495 were called infantile, 166 by canker, 2 by starvation, 302 by tabes mesenterica, 308 by teething. Leaving out the 610 deaths from causes reported unknown, and 366 by hydrocephalus, more than three-fourths of all reported as from those causes; considering what we know of the causes of convulsion, diarrhœa, dysentery, etc., it cannot be unfair to infer that at least one-half of all these deaths were caused or consequent upon diseased digestive organs—that is to say, that of the 9873 deaths of young children more than one-half were from diseased digestive organs. I am not alone in the belief that the excessive mortality at an early period of infancy is (very much of it) caused by attempts to substitute for natural nourishment that which will save time and trouble to the mother, and by attempts to force growth."

The conclusions at which Dr. Charles E. Buckingham has arrived are consistent with common sense and experience. The facts in the above address may be fairly endorsed by practitioners in this country.

A *conversazione* in commemoration of the centenary of the Middlesex Hospital Medical Society will take place on the 29th inst.

It is announced that Lord Derby will preside at the annual festival of University College Hospital, to be held at Willis's Rooms on February 10.

Professor Rindfleisch, of Bonn, has accepted a call to the Chair of Pathological Anatomy in Würzburg. He succeeds Professor Klebs, who has gone to Prague.

The death is announced, on the 5th inst., of Dr. Adolph Hermann, of Pesth, a young man of great promise. He was a *Docent* in the University, and Physician to the Jewish Hospital of the town.

The Siamese Twins, who nearly fifty years ago were exhibited in London, and attracted so much attention, died a few days since in America. One survived the other about two hours. It was a question very much discussed at the time they were first in London, whether the band which attached them to each other could be safely divided, and this was decided in the negative by almost every surgeon who examined them, Sir Astley Cooper amongst others. We shall now have the opportunity of ascertaining the exact nature of the band of union, and it will thus be found whether any surgical means could have been resorted to for their relief.

THE WAR ON THE GOLD COAST.

THE intelligence which has been received from the Gold Coast since we last wrote, though not important when regarded in a general light, is, in our opinion, of the utmost consequence

from a medical point of view. Sir Garnet Wolseley, assisted no doubt by Deputy Surgeon-General Home, has drawn up and circulated some notes for the guidance of the troops and others about to take part in the operations to be carried out after crossing the Prah.

First, the men are informed that the climate inland is better and more pleasant than on the sea-shore, and, with due precautions, there are no reasons why troops should suffer in health during the few weeks' continuance of the campaign. Tea or chocolate, with a little biscuit, is to be provided for the men every morning before marching; and, what is more important, quinine will be regularly administered by the medical officers attached to the expedition. Patrol jackets, during the heat of the day, may be taken off and carried by the men, on sanction obtained from officers commanding; but they must be put on again directly the march is over, or if any long halt occurs; a chill when the body is heated being a thing most studiously to be avoided on the Gold Coast, as a certain forerunner of sickness. Next, the head is never to be uncovered to the sun; and when halting, or on sentry duty, every possible portion of shade is to be utilised. In camping for the night, care is to be taken to construct a raised sleeping-place, if only a few inches off the ground; the method employed by the Ashantees themselves for carrying out this object being recommended to the men for adoption. This will to some extent afford a protection against the dangerous exhalations rising from the ground. If any irregularity of the bowels is experienced, application is to be at once made to the medical officers, and no unfiltered water is on any account to be drunk.

The Major-General then appeals to the manliness of all employed to keep them out of hospital as long as they have strength to march, reminding them that the battalion which sends the smallest number of sick men to the rear will inevitably be the one which is best looked after by its officers, and in which the greatest amount of attention is paid by the men themselves to these few and simple directions.

The experience gained by Sir Garnet Wolseley in the Red River expedition has evidently been of immense service to him in planning the present campaign; and the few months of practical acquaintance with the country and its peculiarities has enabled him to sketch out the foregoing salutary rules, which it is to be hoped will be strictly enforced and cheerfully carried out by the European portion of the force to be engaged.

We deeply regret to have to announce that the able and energetic principal medical officer, Dr. Home, V.C., has at length succumbed to the effects of the climate and his own indefatigable exertions. A second and severe attack of fever has necessitated his being invalided to this country, and he will leave the scene of his unwearied labours at a time when his valuable services could least be spared. It is some small satisfaction to know that, in conjunction with Sir Garnet, Dr. Home has thoroughly arranged the whole of the details for the transport of the sick and wounded during the forthcoming operations, and we cordially sympathise with his misfortune in being compelled to hand over his charge at the very moment when the success of his organisation was in a fair way to be realised. We sincerely hope that he has not put off invaliding too long, and that care and the voyage to this country will speedily re-establish his health.

Mansu has, we believe, been fixed upon as the largest intermediate station for sick and wounded on the long journey from the front to the coast, and the arrangements have been completed for the transfer of a large number of invalids every day. Every patient will be carefully examined by the medical officer of the station from which he starts each day, with a view of ascertaining if he is capable of sustaining the fatigue of the day's journey; and runners in advance will advise the medical staff at Cape Coast Castle of the number of sick likely to arrive at each journey, in order that the necessary preparations for their reception may be carried out before they come in. Separate hospitals have been arranged for the Europeans and West Indians; the native sick, though prescribed for by the medical staff, will not be provided with hospital accommodation, and all cases amongst the European troops which can bear removal will be promptly sent on board the hospital-ships in the offing. Should any travelling hospital-cot be employed for conveying an infectious case, the same is to be immediately destroyed to prevent the possibility of its being again brought into use.

It will thus be seen that everything which care and forethought can suggest has been done to insure the comfort and speedy transit of the sick and wounded from the front to the base of operations—the sea; and we can only hope that the excitement of action, and the prompt policy of the campaign now progressing, will prevent the resources of the medical officers being so severely taxed as has been anticipated.

The hospital-ship *Victor Emmanuel* is reported to have arrived at Sierra Leone; and so careful were the officers in charge of her to prevent the admission of any infectious disease, that for some time they declined to hold any communication with the shore, or to admit any person on board. We hear, however, that both Sierra Leone and Cape Coast Castle are comparatively very healthy, and that no case of yellow fever has occurred at either of these places.

RECRUITING FOR THE ARMY.

Some time ago we saw reason to comment on the unsatisfactory state of recruiting as at present carried on, for keeping up the efficiency of the British Army. A Parliamentary return which has just been made public, showing the age and chest-measurement of recruits passed for the service, from the 31st July, 1870, to the 31st December, 1872, is by no means reassuring, and clearly exhibits the urgent necessity which exists for some sweeping reform, by which enlistment in the army may once more become popular. An examination of the return above alluded to shows that, with regard to age, the average in the case of three regiments is ridiculously low, it being for the 45th Foot, 16 years, and for the 38th and 79th Foot, 17 years; in the case of two of these corps, this absurd average is endeavoured to be explained by the fact that an unusual number of boys have been required for the bands. But in other regiments the averages are far from satisfactory, ranging from 18 years to 22 years and 9 months, the highest being reached in the 2nd Battalion of the 1st Foot.

The averages of chest-measurement extend from 29·50 (in the 79th Foot) to 36·65 (in the 1st Life Guards), the latter figures being nearly reached in the cases of the 2nd Life Guards, the Royal Horse Guards, and the 1st Dragoon Guards; but as all these are picked regiments, it is scarcely fair to consider the chest-measurements of their recruits when analysing the returns for the whole of the army.

Attentively surveying the subject from a medical point of view, we can only pronounce our opinion that the results obtained under the present method of enlistment are such as to call for a prompt and immediate reform. Health statistics of foreign stations afford abundant proof that growing youths are not the best fitted to endure climatic influences, whilst it will be at once patent to the shallowest observer that mere boys with a small average chest-measurement could never be expected to encounter successfully an enemy of such *physique* as, say, the German troops. The subject is a far graver one than perhaps at first sight it appears. If our rulers would not wish to see the day when a British army shall be forced to succumb, not from want of pluck, but from want of weight and seasoning, they will do well to devise at once some plan for attracting older, finer, and better men to the standards. Failing this, there is but one alternative—compulsory service,—and, however unpopular at the commencement such a scheme

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might prove, passing events show every day more clearly that to this we shall have to come at last. Russia, warned by Continental tactics, has just decided to inaugurate the system for the whole of her vast territory, and calculates as the gain that, whereas under the old arrangement she could place but 150,000 fighting men in the field, a short time will suffice to provide her with 500,000 soldiers as the result of compulsory service.

At any rate, we think it will be conceded that the Parliamentary return, herein briefly alluded to, contains matter of serious import to the welfare of the country, and should rouse the military authorities to take speedy and certain action to remedy so disastrous a state of things before it is too late.

EVILS OF DIVIDED RESPONSIBILITY.

THE facts of the following case are reported in the *Coventry Herald*, from which we take them:—An official inquiry by Mr. Henley, one of the Local Government Board Inspectors, has been held at the Warwick Union Workhouse, touching the death of a youth named Edgerton, whose death at the union infirmary from small-pox was alleged to have been accelerated by neglect and bad nursing. The youth resided with his parents in King-street, Leamington. In September he fell ill with small-pox, when Mr. Morris, a surgeon, was called in to attend him. As the case turned out to be one of confluent small-pox, and as the house was small and the neighbourhood thickly populated, Mr. Morris advised the removal of the patient to the infirmary at Warwick Union; and on Monday morning, September 8, gave the mother a note to take to Mr. Bone, relieving officer, stating that the son was suffering from confluent small-pox, and was fit to be removed. It was admitted that Mr. Morris had not seen the patient for twenty-four hours previous to the writing of the note. The mother was sent by Mr. Bone to Dr. Bradley, the district medical officer of the union, who trusted entirely to the note written by Mr. Morris; and without seeing the patient, issued his certificate, stating the fitness of the patient to be removed. This was taken to the union, and at seven o'clock on the Tuesday morning Edgerton was removed to the infirmary, where he died on the following Saturday. It was stated that he was placed in charge of a pauper nurse of bad character, and the evidence of the head nurse, together with admissions made by Mr. Bullock, the house-surgeon, showed the nursing to have been inadequate. At about two o'clock on the morning of Thursday, the deceased was found out of bed, lying on the floor, cold, a circumstance which Mr. Henley pronounced to be a public scandal. In reply to questions put by the inspector, the master, Mr. Garnham, said there was great difficulty in getting persons to nurse small-pox cases, and he was therefore compelled to get the best nurse he could. The decision of the Local Government Board upon Mr. Henley's report was last week forwarded to the Warwick Board of Guardians in a letter to the following effect:—After setting forth the facts of the inquiry, the Board pass more or less censure upon each of the officers named. Mr. Bone, relieving officer at Leamington, is highly censured for not having satisfied himself that it was a case for pauper relief before issuing an order for removal to the workhouse. Dr. Bradley is censured for not having visited the patient before certifying that he was fit to be moved. The Local Government Board also censure Mr. Bullock, the medical officer of the union, for not seeing that a proper nurse was provided; and Mr. Garnham, master, is likewise censured for not providing a proper nurse. The clerk to the guardians was ordered to send a copy of the letter to each of the officers. It is to be regretted that Dr. Bradley did not see the patient previous to his removal to the infirmary. Mr. Bullock, the house-surgeon, is surely less to blame than the head nurse that a proper nurse was not provided. We think, too, the Local Government Board should not have omitted to reprove the board of guardians for a laxity of discipline for which they are responsible, in permitting to be employed in their infirmary a pauper nurse of bad character—a woman evidently most unfit for the duties of a nurse,—whose wanton carelessness and inattention, it would appear, accelerated the death of the patient. This bad nursing is the worst and most culpable feature in the case, and the onus of it rests upon the guardians.

A "HOSPITAL SUNDAY" FOR DUBLIN.

THE project of having a "Hospital Sunday" for Dublin, first started some two or three years ago by a young and philanthropic member of our profession—the late Dr. Henry Eames—fell into abeyance owing to his lamented death last March. However, a few months since, Lord Brabazon determined to take up the matter, and now our sister-metropolis is to have her "Hospital Sunday." On Friday, the 16th inst., a large, influential, and representative meeting was held in the Molesworth Hall, Dublin, the chair being taken by the Right Hon. the Earl of Meath. The number of clergymen of the various Protestant churches present was especially remarkable, and Protestant and Roman Catholic medical men also mustered strongly to support the cause. The chairman said it had been intended that the movement should be a national one, but while the Archbishop of Dublin willingly joined in it, Cardinal Cullen refused to do so, on the ground that the Roman Catholic hospitals, which were conducted on the most liberal principles, were getting on satisfactorily, and that, in his opinion, it was not desirable to submit institutions working so well to experiments, the results of which could not be calculated with certainty. On the motion of his Grace the Archbishop of Dublin, seconded by Lord Brabazon, it was resolved—"That the success which has attended Hospital Sunday collections in London, and in many of the largest towns in England, induces the belief that a like movement will be equally successful in Dublin. It is therefore most desirable that simultaneous annual collections should be made in all places of worship in this city on behalf of the medical charities; and that the clergy of all denominations be requested, through their proper authorities, to co-operate." Subsequent resolutions were spoken to by Viscount Monck, the Rev. Dr. Kirkpatrick, Judge Lawson, Mr. H. Ormsby, Q.C., Dr. Churchill, Dr. Grimshaw, Colonel Taylor, M.P., Dr. Evory Kennedy, the Rev. Mr. Stevenson, Mr. Wigham, the Rev. Mr. Donnelly, the Rev. Mr. Scott, and Dr. Ringland. It was arranged that the third Sunday in November of this and following years should be set apart as "Hospital Sunday."

ROYAL ZOOLOGICAL SOCIETY OF IRELAND.

THE annual meeting of this body was held in the hall of the College of Physicians, Dublin, on the afternoon of Tuesday, January 13. There was a numerous gathering of members and ladies. His Excellency, Earl Spencer, President of the Society, took the chair on the occasion. The report was read by the Rev. Professor Haughton, M.D., Secretary, and referred, among other matters, to the animals presented to the Society during the past year. A pigmy hippopotamus, presented by Mr. Pope Hennessy, the Governor of Sierra Leone, having, while on its way to the gardens, been taken about too much in Liverpool to gratify the curiosity of the people of that city, contracted pneumonia, and died in a few hours after it reached the Phœnix Park. Mention was also made of the presentation by the Rev. J. Ward, Chaplain to H.M.S. *Egmont*, at Rio de Janeiro, of the nest of a bird called Juan de Barre. The natives said that this bird worked at its nest all the days of the week, but stopped on Sunday, from which he (Dr. Haughton) inferred that, if Darwin's principles were correct, the bird must be descended from some ancestor who once lived

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in Scotland. "Amongst their losses was the old pelican, which had been domiciled in the garden for forty-two years. It was estimated that he was eight years old upon his admission; so that he was a bird of over fifty at the date of his death. Every effort was made to prolong his valuable life by feeding him on live eels and whisky punch; but old age prevailed, and he died peaceably on the approach of cold weather. He drank the punch with great relish; in fact, he had resided so long in Dublin that it must have come naturally to him, and this and the live eels prolonged his life for at least a fortnight." Unfortunately, the funds of the Society do not seem to be in so flourishing a position as the efforts of so energetic and witty a secretary as Professor Haughton would lead one to suppose, and the subsequent speakers, including Dr. Grattan, Dr. Lyons, and Sir Dominic Corrigan, suggested various remedies for this state of things. His Excellency made a judicious and able speech in response to a vote of thanks to him which had been carried by acclamation.

A PHARMACEUTICAL BILL FOR IRELAND.

On Thursday, January 15, a joint deputation from the Apothecaries' Hall, Dublin, and the Chemists' and Druggists' Association for Ireland, waited upon the Marquis of Hartington, Chief Secretary, at Dublin Castle, to urge upon his lordship the desirability of introducing a Government Bill into Parliament similar to the Pharmaceutical Act for England. The effect of such a Bill would be to empower the Apothecaries' Hall to grant certificates to persons who properly qualified themselves by passing a prescribed examination to compound medicines. This modified qualification, or pharmacy licence, would not entitle the holders of it to practise medicine, but was intended to meet a want much felt in country districts —a dearth of persons properly trained to compound medicines. The Chief Secretary promised to consult the Medical Department of the Privy Council, England, on the subject, and afterwards to communicate with Dr. Leet, on behalf of the Apothecaries' Hall, and with Mr. E. M. Hodgson, President of the Chemists' and Druggists' Association.

STEWART INSTITUTION FOR IDIOTIC AND IMBECILE CHILDREN, NEAR DUBLIN.

The annual meeting of the friends of this valuable Institution took place on Thursday, the 15th inst., the chair being occupied by the Earl of Charlemont. From the report it appeared that there was a deficit this year of £420—a result much to be regretted, regard being had to the usefulness of the Institution, which at present accommodates twenty-four boys and twenty-four girls. The Asylum for the Insane, in addition, contains eighty-five inmates. Among the speakers was Dr. Duncan, President of the King and Queen's College of Physicians; and some other leading members of the medical profession were present at the meeting.

THE CONJOINT EXAMINING SCHEME FOR IRELAND.

The Board of Trinity College, Dublin, has, we believe, consented to accept the Preliminary Examination in Arts under the Conjoint Examining Board for Ireland as equivalent to the Matriculation or Entrance Examination of the University of Dublin. Students who may have passed the former will thus be allowed, should they desire to do so, to proceed with the Arts Course of the University without undergoing any further test examination.

THE OUTBREAK OF TYPHOID AT CAMBRIDGE.

Drs. Paget and Bradbury, who were appointed to conduct the inquiry into the causes of the late outbreak of typhoid fever in Caius College, presented their report on the 16th inst., in which they say that the water supply is unexceptionable, and, although the milk was suspected to have been mixed with impure water, no evidence could be procured to confirm the suspicion. The water and milk supply having been found satisfactory, attention was directed to the sanitary arrangements of the College. The report says—"We have more particularly examined the two (distinct and distant) parts of the College to which the fever was confined. In the basement of the building, under the library staircase, near the top of which two of the cases occurred, defects were found which were presumably an adequate cause of the fever. These defects have been corrected." In the new building the sanitary arrangements were found to be almost perfect. The only possible explanation of the introduction of the poison is, that under certain conditions—heavy rainfall or low barometric pressure —sewage air may have passed upwards through the rain-water pipes. Heavy rainfall occurred on October 13 and 23 and on November 3, and the barometric pressure was extraordinarily low on October 22 and November 1. At these dates the sewers with which the rain-water pipes communicated contained typhoid excreta from cases in the town along the same line of sewerage, and the probability is that at these times effluvia passed upwards through the syphons. The syphons are being replaced by more efficient traps, and other sanitary improvements are being carried out, which, when completed, will enable the College authorities to say that every possible precaution has been taken to guard against any future outbreak of typhoid fever.

A NEW METHOD OF PRODUCING GLYCOSURIA.

It has been recently shown by Dr. Ewald, of Berlin, that the urine of rabbits under whose skin nitro-benzol of sp. gr. 1078 has been injected about three hours before, in doses of from 0·5 to 2·0 grammes, contains a substance which, after treatment of the urine with animal charcoal and filtration, exhibits all the reactions of grape-sugar, is an excellent reducing agent, and ferments readily with yeast. There can be no doubt, therefore, Ewald thinks, that the excreted substance is really sugar. It continues to appear in the urine for about twenty hours after the injection, and then gradually diminishes until it disappears entirely in from twenty-four to thirty-six hours. As much as 1·9 per cent. was found to be present by the volumetric method of analysis with Fehling's solution. The secretion of urine itself and its specific gravity were not increased. These statements rest on the data given by nine experiments, in all of which similar results were obtained. Ewald could not, curiously enough, produce glycosuria by subcutaneous injection of nitro-benzol in dogs, even though the dose was increased up to a quantity (1·5 to 2 grammes) which killed them; but as much as 2·8 per cent. of sugar was obtained from the urine of a bitch to which three grammes had been given by the mouth in a diluted form, but it died in five hours. This sugar gave as definite chemical reactions as in the case of the rabbits. The author points out that if further experiments confirm the failure of the subcutaneous injections in dogs, the fact will not only show a remarkable difference in the action of nitro-benzol in the herbivora and carnivora, but also indicate the direction in which we must seek in the latter for the origin of its influence on the formation and excretion of sugar.

THE DISPENSARIES, BOMBAY.

The following practical remarks on the dispensaries in Bombay we extract from the November number of the *Grant College Students' Journal*, Bombay:—

"On a previous occasion we took the liberty to consider the influence of popular superstitions on medical practice, and on the progress of science generally. Side by side with what we have spoken of the mischief done by the indigenous quack, were we to omit to expose some of the evils attendant upon the practice of European medicine, we should be guilty of doing injustice to the profession, and no less to the public.

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We shall take this opportunity of exposing only one of those evils which are the very essence of mischief—viz., the wretched condition of most of our dispensaries.

"The number of dispensaries in Bombay is about three scores and ten. Nearly two scores of these belong to the graduates of Grant College, who have set up as private practitioners. Out of the remainder, some dispensaries are kept up by European chemists and druggists, some by native druggists—men certainly of no professional standing,—and the rest belong to public charitable institutions.

"The wretched condition of our dispensaries is owing to the decided want of strict superintendence on the part of those who set up themselves as friends of humanity. We attribute this state to a mistaken notion as to the scope and object of keeping up a dispensary, on the one hand, and on the other to a culpable neglect and carelessness on the part of the medical practitioner, and the gross and wanton mischief on the part of the compounder in charge of the dispensary. They seriously interfere with the success of the European system of medicine, and bring into disrepute the cause of science, as well as the name, fame, education, and abilities of the practitioner. The doctor finds his efforts useless. He wonders what could interfere with his curing the patient. But does he ever think that the defect lies not in his skill, nor in his knowledge, nor in his prescription, but in his own dispensary? There lies the defect, at his own door!"

HEALTH OF THE PUNJAUB.

The Sanitary Commissioner of the Punjaub, in his weekly return of deaths for the week ending December 15 last, reports:—

"There is but little change in the health of the Province. The death-rate continues unusually high. In Hushiárpur district the total deaths registered have fallen from 605 to 508. In Lahore and Siálkot districts also the number of deaths has slightly decreased. In Hushiárpur and Amritsar the death-rate is very high—viz., 56 and 73 respectively. In Delhi the total deaths have risen from 154 to 171. The town of Farakhnagar, in the Gurgáon district, has been extremely unhealthy for some time. The death-rate of the last seven weeks has been upwards of 10 per cent. The epidemic at Faridábád appears to be subsiding; the death-rate has fallen from 241 per mille last week to 124 in the present week. There is marked improvement at Balabgarh also. The pestilence at Bahádargarh is steadily abating. At Pánipat the death-rate is still enormous—viz., 76. At Amritsar the total deaths have risen from 159 to 191. The death-rate has been excessive for some time. Kasúr, a small town in the Lahore district, has had a pestilential death-rate for the last seven weeks. Lahore city continues unusually healthy. The town of Siálkot continues very unhealthy. Dr. Penny, the Civil Surgeon of Ambálah, reports that eight cases of pleuro-pneumonia occurred in the gaol at that station in the last week of December; three of the cases proved fatal. Dr. Penny has properly treated those cases as infectious, and entirely isolated them from the other sick convicts. Pleuro-pneumonia often appears in the Punjaub about this time as a very fatal epidemic, but its ravages are not limited to the cold season; it frequently continues to cause much mortality in the hot months of April and May. Only one death was registered under the head of cholera; it was in the village of Gharounda, in the Karnál district. Sixty-eight deaths were registered under the head of small-pox, of which thirteen occurred in Hazára. The small-pox deaths were nearly a fifth of all the deaths registered in that district."

LIVERPOOL MEDICAL INSTITUTION.

At the annual meeting of the members of the Medical Institution, held at the Institution, January 13, 1874, the following Council and office-bearers were elected:—*President:* Mr. McCheane. *Vice-Presidents:* Mr. T. Shadford Walker; Dr. Davidson. *Treasurer:* Dr. Oxley. *Honorary Secretaries:* Dr. Lyster; Dr. Glynn. *Honorary Librarian:* Dr. William Carter. *Council:* Mr. Puzey; Dr. Caton; Mr. Harrison; Mr. Newton; Mr. Rushton Parker; Mr. Edgar A. Browne. *Microscopical Committee:* Dr. Braidwood; Dr. Glynn; Mr. Newton; Dr. William Carter; Mr. D. J. Hamilton; Mr. Rushton Parker; Dr. Caton; Dr. Davidson.

THE FORTHCOMING EXAMINATION FOR ARMY, NAVY, AND EAST INDIA MEDICAL APPOINTMENTS.

The date for the forthcoming competitive examination for gentlemen seeking admission to the Army, Navy, or East India Medical Departments has been fixed to take place at Burlington House on February 16 next. We hope to be able, at a future date, to give the questions placed before the candidates upon this occasion, in order that those amongst the junior ranks of our profession who contemplate taking service under the State may be enabled to form some idea of what is required of them before presenting themselves for competition at these periodical examinations.

HITZIG ON DR. FERRIER'S EXPERIMENTS.

At the Berlin Medico-Psychological Society in November last, Dr. Hitzig, the author of the method of examination of the brain by electricity, made some remarks on Dr. Ferrier's well-known experiments on the localised functions of the brain, especially with regard to the discrepancies between his own and the latter's results. He considers that the chief of these is that while he and Fritsch have found only one part of the convexity of the hemispheres capable of electrical excitation, Ferrier extends this property to nearly the whole of it. This Hitzig explains by saying that Ferrier has in his experiments used too strong currents (the secondary coil of Stöhrer's battery being pushed in to eight and even four centimetres), and has thus excited the ganglia at the base of the brain, so that it is to them, and not to centres localised in the cortex, that the movements noted must be referred. Another reason why Hitzig doubts some of the effects of irritation in Dr. Ferrier's cases is because, although there is such a remarkable anatomical similarity between the brains of the dog and the cat, the latter found that electrisation of the spot on the cat's brain corresponding to the centre of movement for the tail in the dog gave no result. Hitzig has repeated several of the experiments in which Ferrier's results differed from his own, and declares that his own views are re-confirmed. He will shortly publish a detailed account of all his work in Du Bois-Reymond's *Archiv*.

SOCIETY FOR RELIEF OF WIDOWS AND ORPHANS OF MEDICAL MEN.

At the quarterly court of directors held on January 14, the President, Dr. Burrows, in the chair, £1266 10s. was distributed to fifty-eight widows and twenty-four children. The expenses of the quarter amounted to £57 18s. 3d. Fresh applications for assistance were received from two widows, and grants were made to them in accordance with the rules of the Society. Two new members were elected, and proposals of membership accepted from three candidates.

STRANGE, IF TRUE.

Dr. Hardwicke held an inquest on Tuesday on the body of an infant ten weeks old, who had died after showing symptoms of having been poisoned. The evidence showed that the mother had eaten mussels, and it may be that the mussels had imparted a poisonous quality to the mother's milk, of which the child had partaken.

HEALTH OF SYDNEY.

The *Morning Post's* Sydney correspondent, writing from Sydney on the 2nd ult., states:—"We have had continued bad weather of late, and there has been much illness in and around Sydney; the death-rate, too, is larger than it has been for many years, but the medical profession ascribe this as much to impure water-supply as anything else, and once more vigorous measures are about to be taken to secure an efficient supply of this great necessary."

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FROM ABROAD.

Case of Extirpation of the Kidney—Professor v. Langenbeck on Bloodless Operations—The Two-headed Nightingale in Paris.

Dr. Brandt, Professor of Surgery at Klausenburg, relates in the *Wiener Med. Woch.* for Nov. 29 and Dec. 6 an interesting case of the successful extirpation of a kidney after an accidental injury.

S. P., a healthy peasant, aged 25, was, on June 3, 1872, stabbed by a drunken man in the left hypochondrium by means of a pointed table-knife. Three or four ounces of blood were lost; and after a while attacks of cough came on, which were attended by a protrusion of a fleshy swelling through the narrow orifice of the wound. Twenty-four hours afterwards he was brought to the hospital, when scarcely any signs of anæmia were observable. Exactly opposite the lower edge of the last false rib there was found a flattish fleshy tumour, of a reddish colour, measuring nine centimetres in length and six in breadth, and from which constantly trickled a transparent, straw-coloured fluid. The edges of the tumour were irregular, as if gnawn, and its under surface was covered by a smooth membrane, in part of a dark-red and in part of a whitish colour. From the middle of this lower surface, a pedicle, six centimetres in circumference, extended into the wound of the abdomen, giving the tumour the appearance of a mushroom. This pedicle was surrounded also by a smooth membrane, which was torn in several places, whence escaped some of the above-mentioned fluid. It was firm to the touch, evidently containing vessels, which, however, conveyed no pulsation. The oblique wound in the hypochondrium through which this pedicle passed was about three centimetres in length and one and a half in breadth, having sharp edges, with which it embraced the pedicle. To the touch the tumour was moderately firm and painless (pain only being produced by traction on the pedicle), and its temperature at the surface was lower than that of the rest of the body. The tumour upon the whole much resembled the section made on examining a kidney, and under the microscope the shades of colour characterising the cortical and pyramidal substances were made out. The abdomen in the vicinity of the wound was quite normal in appearance, but in the left lumbar region there was a remarkable oval-shaped sinking-in. The tumour was very movable on its pedicle when rotated, and this last admitted of some elongation, which, however, produced great pain in the pedicle and the abdomen, but not in the tumour itself. The general condition of the patient was unexpectedly good, the pulse being twenty-four hours after the accident about 80, and the temperature 37·8° C.

The appearance of the tumour and the analysis of the urine which trickled away (which is given in some detail) showed plainly that it was the kidney that had suffered an injury. The organ had evidently been cloven to within its calyces; but what amount of injury the ureter and the vessels had undergone could not be ascertained. It could hardly have been supposed that a knife could have been driven through the abdomen right into the kidney without injury being done to the peritoneum; but the absence of all symptoms proved that such had been the case. After considering at some length the various probabilities of the course the case would take if the kidney were allowed to remain where it was, and of the effects which its removal might exercise on the economy, Professor Brandt proceeded to its extirpation four days after the injury. The patient, indeed, continued in a very favourable state for the operation, having the day before its performance walked some distance in order to be photographed, occupying two hours in assuming the necessary positions. For the three days prior he had passed little urine, and this contained albumen, derived at all events in part from the injured kidney, which at its injured surface furnished it abundantly. On the day of the operation the pulse was 70, and the temperature 37·6°. The purulent secretion from the injured kidney had considerably increased. A double silken ligature was passed by means of a straight needle through the middle of the pedicle, which was tied in two portions, the kidney itself being separated by means of the knife. No hæmorrhage followed. A daily report of the condition of the patient and the quantity of urine secreted is given from June 7 to 22. From this it results that considerably more than half of the urine usually secreted by the two kidneys was furnished at all times by the single one, and on some occasions this amounted to the entire normal quantity. In the whole course of the case no symptoms of an uræmic or peritonitic character occurred. The patient has been frequently seen since his discharge, and continues well.

At a recent meeting of the Berlin Medical Society (reported in the *Berlin Woch.*, December 29), Professor v. Langenbeck delivered a short address on Esmarch's bloodless operations. He observed that the attempt to limit the loss of blood during operations by the constriction of the limbs is no novelty. In amputation of the thigh, when, on account of the great debility of the patient, the loss of blood was to be dreaded, he has himself for many years past first caused the principal artery to be compressed for some time, and then applied a wet bandage from the toes upwards. The tourniquet was then fixed and the operation proceeded with. Other surgeons may have done the same, and Professor Langenbeck has never claimed the procedure as a discovery of his own. But constriction as practised by Esmarch most essentially differs from this, inasmuch as it renders a completely bloodless operation possible. This is accomplished first by the expulsion of all the blood from the periphery of the limb by means of a very firmly applied elastic bandage, and then rendering a new access of blood completely impossible by surrounding the whole limb above the site of the amputation by indiarubber tubing. Besides the great saving of blood which this procedure effects, it also possesses the great advantage of preventing the parts dealt with from becoming obscured by blood during the entire duration of the operation, thus allowing their anatomical and pathological conditions being surveyed with the greatest nicety. In very delicate operations—as excision of the wrist, for example—we are thus enabled with certainty to avoid doing any injury to the parts, and to dispense with the continual sponging away of the blood.

The maintenance of this complete state of bloodlessness during the whole continuance of the operation appears to be followed by a temporary paralysis of the vessels; for, immediately after the removal of the indiarubber tubing, the skin of the constricted extremity becomes intensely red, as if it were attacked by erysipelas. With this is conjoined a capillary bleeding (the chief vessels having been secured during the constriction), which sometimes may be considerable, but is not usually productive of any harm. In the numerous applications which this procedure is susceptible of in operations upon the limbs, there are certain precautions which should be observed. Thus, it is doubtful whether constriction should be resorted to in cases attended with septic discharges (*Verjauchung*), as the putrid infiltration might possibly in this way be forced into the circulation. The same care should be taken when amputation is performed for softened tumours in a state of decomposition. Further, the constriction of the arm by the indiarubber tubing in operations upon the upper extremity may induce paralysis of the median or ulnar nerves, owing to their too great compression against the bones. In two cases of operations for pseudarthrosis of the humerus, Professor Langenbeck has met with paralysis of the branches of the median, which, however, lasted only a fortnight. But in an operation

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for central necrosis of the humerus, which was much facilitated by the constriction, a complete motory paralysis of the median ensued, which continued at the end of three weeks, when the patient was discharged. In order to obviate such mischances, he has ceased to employ the indiarubber tubing as a means of constriction in operations upon the upper extremity. Instead of this, after the peripheric elastic bandage has been put on, he applies a second elastic bandage firmly around the upper third of the arm, and fixes it either with a pin or with one of Bose's clamps. With this modification he has performed excision of the wrist and several other operations in just as bloodless a manner as under constriction with the tubing, and without any disturbance of the functions of the nerves.

The "Two-headed Nightingale," Millie-Christine, so long on exhibition in America and England, was the cause of a crowded meeting at the Paris Academy of Medicine last week. At the preceding meeting a member had suggested that, as doubts existed in the public mind as to the reality of this monster, the Academy should depute a committee in order to submit the matter to examination. This was scouted, it being considered derogatory to the Academy to take in hand the examination of real or supposed impostors merely in order to prevent the sight-seeing public being imposed upon. This, it was said, was the function of the police. The Préfet of Police, accordingly, moved by this expression of academical opinion, took up the investigation. It might have been deemed a superfluous one, after the examinations of the object in question which have been made and published both in America and Europe. However, the Préfet appointed two academicians—Professors Tardieu and Robin—as experts for this purpose. When they repaired to the place of exhibition, they were met with a resistance they had not expected; and, notwithstanding they were armed with the legal power, they could not induce the object of their visit to divest itself of its clothing below the hips, so that the report delivered to the Préfet, and afterwards read to the Academy, was far less complete than had been expected by the crowd of *savants* it had collected. We do not find, indeed, that it adds anything to what was already known. The complete independence of the upper portions of the monstrosity was amusingly shown in the discussion or quarrel which took place between the sisters as to whether they should allow the pelvic regions to be explored. The two hearts, also, did not beat in unison, the radial pulses did not present the same characters or the same rapidity, and the tactile sensibility was completely separated. Below the pelvis, however, there was a community of the circulation and of the tactile sensibility, for the pulse—carefully counted in the popliteal spaces of the four lower extremities—was found to be perfectly synchronous; and whatever portion of any of these four limbs was touched, both sisters were simultaneously conscious of it. "This almost complete independence," the report concludes by observing, "of two beings and two existences, only confounded together in the more secondary parts, which are not only lower, but (so to say) less necessary to life, allows of our foreseeing a terrible eventuality should one of these beings perish before the other, the survivor remaining attached to the corpse of her sister."

M. Broca, who had also examined these beings, observed that although there was a community of sensibility in the four lower extremities, this was of the most obscure and imperfect character, and that the muscles of each sister only obeyed the corresponding brain—the will of the one sister exerting no influence on the movements of the other. The exact co-ordination of the movements in walking has been acquired entirely by habit. It must be admitted, then, that the antero-lateral portions of the two spinal cords remain perfectly independent, and that the fusion of the posterior portion is limited and complete.

THE WEBB FUND.

The following is a list of the actual amounts received by me as Treasurer to the "Webb Fund" to present date. I shall feel obliged if you will find a place for them in your columns. I have enumerated them in the order in which they have been received. I am, &c., Augustus Churchill.

11, New Burlington-street, W., January 21.

	£	s.	d.
Mr. Churchill	10	10	0
Sir Wm. Jenner, Bart.	20	0	0
Sir James Paget, Bart.	10	10	0
D. D., per Sir J. Paget	10	10	0
Mr. J. Warwick	5	0	0
Dr. J. W. Ogle	5	5	0
A Friend	1	1	0
Dr. Leared	3	3	0
Dr. Burrows	10	10	0
Mr. Hy. Morley	1	1	0
Dr. Stocker	20	0	0
Messrs. Pardon and Son	5	5	0
Dr. Symes Thompson	2	2	0
Mr. H. Gore	5	0	0
Mr. T. M. Stone	2	2	0
Mr. J. T. Clover	10	10	0
Mr. Edwin Saunders	5	5	0
Dr. Hughlings-Jackson	5	5	0
Mr. Collisson	1	0	0
Sir Henry Thompson	20	0	0
Dr. Martyn	10	10	0
Dr. Wilks	1	1	0
Mr. R. Baker	2	2	0
Dr. Fayrer	5	5	0
Dr. Bisset Hawkins	10	10	0
T. E. W.	21	0	0
F. E. W.	21	0	0
Mr. H. S. Hughes	1	1	0
Mr. W. S. Roots	2	0	0
Dr. Habershon	5	5	0
Dr. R. P. Cotton	2	2	0
Mr. T. Stokes	1	1	0
Mr. Pye Chavasse	2	2	0
Editor of *Edinburgh Medical Journal*	2	2	0
Mr. T. B. Curling	5	5	0
Dr. C. J. B. Williams	20	0	0
Dr. Edis	1	1	0
Mr. E. Bradford	5	5	0
Mr. T. Underwood	10	10	0
Mr. Hugh W. Statham	5	5	0
Sir Thomas Watson	10	10	0
Mr. R. King Peirce	2	2	0
Dr. Julius Pollock	3	3	0
Dr. Oliver	1	1	0
Dr. Elam	10	10	0
Sir Curtis Lampson, Bart.	25	0	0
Mr. G. C. Lampson	10	0	0
Mr. Henry Lampson	20	0	0
Mr. J. Lindsay Bennet	10	10	0
Messrs. Barnett, Hoare, and Co.	10	10	0
Mr. W. T. Rigg	5	5	0
Mr. E. Goad	5	5	0
Mr. J. Joseph	5	5	0
Baron Stern	3	3	0
Mr. J. W. Ford	2	2	0
Dr. Hall	1	1	0
Mr. C. Groucock	1	1	0
Messrs. Patry and Pasteur	5	0	0
Mr. J. H. Willock	1	1	0
Dr. Moxon	10	10	0
Total	431	5	0

CLINICAL REMINISCENCES.

By PEYTON BLAKISTON, M.A., M.D., F.R.C.P., F.R.S.

No. VII.

Treatment of Disease—*continued.*

It now only remains to examine whether during a long practice—partly amongst large masses of the lower orders and in connexion with a large hospital and dispensary, and partly in a locality much frequented by invalids amongst the middle and higher classes—I may have been enabled from my personal experience to arrive at any conclusions, and lay down any rules which might assist me were I on the point of entering instead of finishing my professional career; and which may consequently be useful to any of my youthful brethren.

I shall endeavour briefly to illustrate the following points which have especially forced themselves on my attention:—

To take a Broad and Comprehensive View of each Case, looking to the past, present, and probable future state of our patients.

I need not dwell on the importance of inquiring into *past* histories, habits, and constitutional tendencies; but I am by no means sure that all practitioners, especially at the onset of their career, realise the dangers which sometimes result from not looking *ahead*, and calculating what effect the treatment they propose to adopt may have on the future health of their patients. For instance, although a violent attack of inflammation may sometimes be very quickly subdued by two or three copious bleedings, a protracted convalescence would most probably ensue, and be followed by a permanently weak state of health, and in certain cases terminate in an invasion of pulmonary phthisis or some other complaint arising out of an asthenic state of the system. Again, suppose the disease was an aggravated form of psoriasis. In such a case arsenic will often effect a cure, and therefore is frequently administered. But it has happened to me to witness two cases in which, immediately after the disease had yielded to large doses of arsenic, a violent attack of pneumonia supervened, resisting every effort to arrest its progress, and rapidly terminating in death; although this disease usually yields readily to treatment. Therefore for many years I have been very chary of prescribing this medicine in such cases, and when I have done so it has been with the greatest caution.

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Having formerly seen two or three cases in which, after paracentesis thoracis had been performed, the patients were left with a great amount of spinal curvature, inducing much distress, and in one case death, I determined in a case of this kind occurring in my own practice—and which was recorded at page 265 of my work on "Diseases of the Chest"—to look *ahead* and to endeavour to prevent such a sequela. Accordingly, I had a globular glass vessel fitted to an exhausting syringe, by means of which, the pus and air being frequently withdrawn from the pleural cavity, the lung was forcibly expanded by the air rushing in through the trachea, and was enabled to burst the bands of lymph before they became hardened and bound the lung down to the spine. This answered completely, so that four years afterwards "the difference in the two sides was recorded as almost imperceptible," and the patient as being "plump and well."

Since then, however, a much more remarkable case of this kind occurred. Some years ago I was called in to see a young gentleman, aged 16, in consultation with Mr. Gabb, of Hastings. Having had a very severe attack of acute pleurites when at school near London, as soon as he was able to travel he was sent down to his friends at the seaside. The left side of the thorax was bombed out to an enormous extent, as dull as possible on percussion, and yielded no trace of a respiratory murmur, being evidently full of fluid. His dyspnœa was fearful, and his exhaustion so great that it would have been most hazardous to have attempted paracentesis. So he was plied with stimulants for two or three hours, and then the operation was performed by Mr. Gabb. The wound quickly healed, and in a short time the chest filled again. After the second operation the exhausting syringe was applied at first daily, but afterwards less frequently for some months, and then a drain-pipe was inserted. The fluid evacuated was of the consistence of thick pea-soup, and the quantity before the discharge ceased was accurately measured, and amounted to 160 pints, besides what escaped into the cloths! Eventually this youth completely recovered, but I think not under two years' time. For some years past he has been in holy orders, and gets through his clerical duties with ease. I have not seen him, but I am informed by his friends that his spinal curvature is very slight, and that he takes active exercise.

I have thought it well to record this case as illustrative of what can be done by the *vis medicatrix naturæ* when judiciously assisted.

To anticipate Collapse in all Acute Cases.

This for many years past has been a golden rule with me, and was thus announced in a clinical lecture delivered at the Birmingham General Hospital in 1842:—

"The backbone of the treatment which has been pursued in these cases is the employment of *stimulant* and *sedative* remedies in a comparatively early stage of the disease; indeed, the necessity of keeping up the strength during the period that nature is exerting herself to effect a cure, cannot be too strongly impressed upon you. In all acute diseases, not excluding the exanthemata and inflammations of an important organ, whenever you have good reason to believe that your patient's strength is less than it was at your previous visit, commence supporting it by ammonia, wine, brandy, bark, etc., as each case may seem to demand, and depend upon it you will not be too soon. Do not wait for complete prostration, but *anticipate it*. Neither delirium nor great frequency of pulse need deter you, as in the majority of cases both will subside, in some degree, under the influence of stimulants."

Besides, by thus commencing to support our patient at an early stage of his illness, much less stimulant is required in the long run than would be the case if we allowed the debility to get ahead, and to proceed on its downward course; just as a child might arrest the progress of a rolling mass within a few yards of the summit of a hill, which would require the force of a score men to bring it to a standstill when it approached the bottom.—*Principiis obsta ne sero medicina paretur.*

Frequently to combine Sedatives with Tonics.

This combination strongly commends itself to our judgment when we remember how constantly debility and irritability are associated together. Thus both theory and practice will be found to sanction it. Let us take two or three instances. A very irritable state of the bowels is often found in young, weakly children, which will not yield either to morphia or quinine when exhibited separately; but when they are combined the effect is often surprising. So again in pericarditis and in puerperal peritonitis, the combination of gum opium with bark, ammonia, and alcohol is most valuable; and also in cases of asthenic pneumonia. In some forms, too, of rheumatism, the union of liq. cinchonæ, ammonia, and opium is an heroic remedy.

To be very Cautious in Abstracting Blood.

With the exceptions previously mentioned, I have hardly ever prescribed venesection during the last thirty years, nor have I ever had cause to regret that I had not done so in any one particular case. Amongst the practitioners of this country in former days, pleuritis and pneumonia were the cases in which it was most largely employed. I have, however, found that in the former case a few leeches have sufficed to relieve acute pain, when followed up by mercurial and opiate inunction, large linseed-meal poultices, and by blisters when effusion was taking place.

In pneumonia I have observed that in many cases the disease runs a favourable course with but very little treatment; or at any rate when only diaphoretics and poultices have been employed, with alcohol when required to sustain the failing forces. As regards venesection in heart disease, I have in my work on that subject given my reasons for not pursuing Valsalva's treatment in aortic aneurism, that of Bouillaud in pericarditis, and that of Laennec in hypertrophy of the heart.

In every form of Chronic Disease to pay great attention to the state of the Digestion and Assimilation of Food.

Believing as I do that the imperfect performance of these functions is at the bottom of almost all the ills our flesh is heir to, I have always devoted my attention specially to this point, endeavouring in the first instance to assist the organs of digestion to prepare the food for assimilation, and then to correct and neutralise the lactic acid engendered by imperfect digestion and assimilation. In this I have been greatly aided of late years by the introduction of pigs' pepsine, which, combined with nitro-hydrochloric acid *before* meals, has proved most valuable. The lactic acid has at the same time been neutralised by bicarbonate of potash *after* meals, more especially at bedtime, combined with a little nitrate of potash, as recommended by Prout. This treatment I have found applicable to a great number of cases.

Thus obstinate sick-headaches, troublesome coughs, and unhealthy wounds have not unfrequently been greatly relieved, if not cured, although they had for years resisted other modes of treatment. Under this system of treatment strength has not been supplied by tonics, but by a better assimilated nutriment giving rise to the formation of a healthy plasma.

Not very long since I was requested to see a lady about 55 years of age, who was suffering from a troublesome cough, with rather copious expectoration, and had for some months been losing appetite, flesh, strength, and spirits. For more than thirty years she had been suffering from severe sick-headaches, in which she brought up a quantity of highly acid fluid from the stomach, and for which she never could obtain relief by any mode of treatment, and had been in the habit of taking little or no food during the attack. The only physical signs discoverable in the chest were a slight dulness immediately under the right clavicle, but none below it; slight vocal resonance and marked expiratory sound under the clavicle. The sputum was examined under the microscope, and found to be such as takes place in common chronic bronchitis. Pulse 80 to 90. Under these circumstances I determined to ignore the cough, and to discontinue all chest and tonic medicines, directing my attention to the organs of digestion and assimilation. Twenty drops of dilute nitro-hydrochloric acid and five grains of pigs' pepsine were ordered before each meat meal, and twelve grains of bicarbonate of potash and three grains of nitre every night at bedtime, with cod-liver oil after food. A plain but nutritious diet was given, with the moderate amount of sherry and whisky to which she had for some time been accustomed, substituting a very dry sherry for a sweeter sample she had been in the habit of drinking. In two or three days she had one of her bad headaches, but forced herself to take food and stimulants through it. She recovered from it, feeling less prostration than she had done for years. Since then she has not had any such headache, and has brought up no sour fluid from the stomach. She gradually regained her appetite, strength, and flesh, and good spirits. The cough, although looser and less troublesome, remained, and probably will do so in the shape of chronic bronchitis—signs of slight congestion at the summit of the right lung appearing and disappearing. The pulse has come down to an average of 72.

A young lady lost her appetite, and became very thin and

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weak. She had a small ulcer on her leg, which would not heal. Quinine, iron, and change of air failed to produce any improvement. Tonics were discontinued, and she was placed on the same plan as mentioned in the last case. In a few weeks she recovered her health, and the wound on her leg healed up. What tonics could not accomplish was done by improved digestion and assimilation.

In laying down Rules for Diet, to take notice of the Idiosyncrasy of the Patient.

Many persons have hard-and-fast rules of diet, which they lay down for all patients alike, labouring under the same complaint, without taking into consideration the difference which may exist between one patient and another in respect of their power of digesting different articles of food. In cases of dyspepsia, mutton, game, and poultry are generally ordered, and veal and pork forbidden. Now, I can digest veal and pork a great deal better than mutton or beef; and so it constantly occurs, when inquiry is made, that some persons will digest substances that to others are almost poison. I know one lady who cannot eat mutton in any shape without suffering seriously, and one gentleman, aged 85, who cannot eat fish with impunity. So, again, although in most cases wines with but little grape-sugar in them, such as claret and dry sherry, are most suitable to weak stomachs, yet occasionally a person is met with who can digest port wine better than claret or sherry.

The last rule I have laid down for my own guidance is—

Honestly and courageously to give our patients and their friends the best advice in our power.

It would be superfluous to detail cases in which the most disastrous circumstances have occurred in consequence of such advice having been withheld from lack of moral courage. But I will give one of an opposite kind, where a great good resulted from advice having been given to the friends of a patient, *nolente volente*.

About twenty years ago an undergraduate of Cambridge was placed under my care. I found that his brain was overtasked, and that he was uneasy in his mind. His father, who had been greatly distinguished in his day both as a mathematician and a classical scholar, was very anxious that his son should do the same. The young man, however, who was a most brilliant classical scholar, had no turn for mathematics, and his studies in that direction went sadly against the grain. On three different occasions I represented to his father that his son's health was being impaired by this double reading, but I failed to convince him of the necessity of his discontinuing his mathematical studies. What he had done he thought his son could do. Upon this I addressed myself to his mother, and told her that if I had her sanction I should take a very strong step by writing to her husband and telling him that I should consider him responsible for the ruin of his son's health, if not for the sacrifice of his life, unless he relaxed the order given him to continue his mathematical studies. Accordingly I wrote, and in two days afterwards called on him. The old man burst into tears and said, "You have conquered." My young friend soon regained his health, and carried all the classical honours of the University before him, and has been for some time past in a very leading and responsible position.

I well know that we are sometimes placed in a very painful position; but the good of our patient is the only point we should look to; and, keeping that steadily in view, let matters turn out how they may, we shall have the answer of a good conscience.

In this slight sketch of the changes that have occurred in the *treatment* of disease, nothing has been said of that which has taken place in respect to its *prevention*. Much, however, has been done from time to time towards the improvement of the general health. Large districts have been effectually drained, and poisonous malaria has thus been got rid of, and much disease-harbouring sewage has been removed from populous towns by the same process; whilst efforts have been made here and there to procure supplies of wholesome water and pure air; but much remains to be done, for sanitary legislation is only in its infancy. Supposing, however, it were come to full maturity, there is much lying beyond it which it can never reach; as, for instance, the economy and preparation of food, which can only be accomplished by the people themselves. Recently, members of our profession have been appointed officers of health throughout the whole country, and are thus fairly enlisted in the cause of sanitary reform. Let us hope that they will take every opportunity not merely of carrying out the law, but of teaching their patients and their families something of the laws of hygiene, and thus helping them to acquire additional habits of forethought and prudence which may offer an effectual barrier to the march of disease and moral degradation.

(*To be continued.*)

NOTES ON FOREIGN HOSPITALS AND SCHOOLS OF MEDICINE.

II.—KIEL—(*Continued from page* 19.)

Part 2.—Kiel Hospital.

The Academical Hospital of Kiel is built on a rising ground at the north end of the town, and but three minutes' walk from the new university buildings. The situation is apparently a very excellent one; it is high and airy, with an open aspect to the south, a view of the picturesque bay on the east, and abundant shelter from the cold north by means of wood. The Hospital is altogether a group of houses, comprising the hospital proper, an infection-house, three *Barracken*, a lying-in institution, a pathological institute, and the residences of the principal physician and surgeon.

The hospital proper and the lying-in institution form the front line of buildings, at a distance of about 100 yards from each other. Quite at the back are the three *Barracken*, running at right angles to the former. Between the *Barracken* and the front line of buildings are the pathological institute and the infection-house. And finally, the houses of the officers stand quite clear of the others, towards the front and sides. The whole establishment is surrounded by extensive grounds filled with trees and flower-beds.

The hospital proper is a new-looking brick-building, yet withal of a very pleasing appearance. Its ground-plan is shaped somewhat like the letter E,—thus ⊔⊔; and it contains two principal floors. Entering the Hospital by the front door in the middle of the building, the visitor finds himself in a hall with the staircase in front of him and a long corridor on either hand, while around him are several doors leading to various departments of the administration. It is easily seen that the entrance-hall is the middle point of the Hospital, having on either side of it a symmetrical block in the corridor style, and of two storeys; so that a description of a single floor of one block is a description of all. The male wards are in the west block and the female in the east, while the medical patients lie on the ground-floor and the surgical patients upstairs.

Turning out of the hall to the right, one enters the corridor which has just been mentioned. This runs along the back of the block, and the doors of the wards open into it at regular intervals. The wards accordingly occupy the front of the hospital. The corridor is lighted from behind, and may be warmed in cold weather. The system of small wards seems to be carried to an extreme length at Kiel. Four wards communicate with this single corridor, two of two to four beds each, and two of eight to twelve beds each; so that the whole Hospital of about 100 beds contains no fewer than sixteen apartments for the accommodation of patients. This result has of course been obtained by the adoption of the corridor plan of architecture. The wards are of good height, apparently about twelve feet; and each patient would seem to be allowed—judging roughly by the eye—600 cubic feet of air. Ventilation is effected by natural means only: in front are the windows; behind, towards the corridor, are sliding openings in the doors for the entrance of air; and the foul air escapes at gratings along the top of the side and front walls. The air entering from the corridor is of course warmed in winter, and at that time the windows must be kept shut. In the month of September the wards smelt remarkably pure, even with some overcrowding; what their state may be in cold weather we are not in a position to say. The walls of the wards are painted with oil, and the floors are waxed. The beds at Kiel are of wood, and much smaller than those used in London hospitals. The mattresses are made of sea-grass, and the bedclothes are blankets. There is at least one stove, of glazed tile or iron, in

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each ward. The other furniture is not peculiar. The nurses are uncommonly well dressed, and there is a general look of order, cleanliness, and careful nursing.

The bath-rooms are placed in the wings at the extreme ends of the corridors. They are very well fitted up with fixed and movable baths, cold- and hot-water taps, and douches of various kinds. The movable baths can be rolled into the wards on wheels. Professor Bartels, the physician to the Hospital, has lately been making an extensive trial of the cold-bath treatment of pyrexia. In all cases of typhoid fever the temperature is taken every two hours in the rectum, and the treatment regulated accordingly. Should the thermometer rise to 40° C. (104° Fahr.) or over, the patient is forthwith put into a bath of 12° to 18° C. (54° to 64° Fahr.) until the temperature is reduced. One patient has got as many as twelve such baths in a single day. Port wine is used to relieve excessive depression or threatening collapse. Bartels has combined with this treatment of pyrexia the administration of quinine in enormous doses—two grammes (about thirty-one grains) every second day. The result is apparently very successful. The percentage of deaths in typhoid fever under the old treatment was 15 per cent., while under the new only three cases have died out of 112 really bad ones. It is to be remarked, however, that epidemics of typhoid fever differ considerably in their severity, and that the diagnosis of typhoid fever and acute tuberculosis which is now more correctly made, has a marked effect in reducing the apparent mortality of the former.

The hospital for contagious diseases is a comparatively small building, accommodating not more than sixteen to twenty patients. The wards are small rooms or closets with two to three beds in each. The bedsteads here are all of iron, and furnished with wire mattresses. The most contagious and dangerous diseases do not seem to be treated in this building, although it is called the Epidemic or Infection Hospital. The one solitary case of Asiatic cholera which was under treatment during our visit in September last, was not lying here, but in one of the *Barracken* to be presently described. On the other hand, some of the wards in this building were occupied by cases of ordinary non-contagious diseases. The epidemic hospital has, of course, its own bath-room.

The Hospital at Kiel, like so many others in Germany, has several *Barracken* attached to it. These are large houses, with a temporary look about them, built of wood in great part or entirely, and covered with a sloping roof. Each barrack contains a single spacious ward, without plaster or ceiling, so that the large open roof and bare rafters are exposed to view. Around the outside of the building there runs a corridor, open at the sides and front, for the patients to walk, if they are able, and take the sun, and shut at the further end—where a bed or two may be placed—out of the general ward. At the further end also there are a bath-room and water-closet on the one side, and a small ward-kitchen on the other. The ward is lighted by windows at either side, and ventilation is carried on between these and the doors, and large openings with movable slits along the middle line of the roof. The beds are arranged on either side of the ward, and there is a good space between the ends of opposite beds for a middle passage. The barracks are heated by stoves. The ward furniture presents nothing special for description. One barrack is medical, another surgical, and the third for cases of highly dangerous or contagious diseases, as cholera, small-pox, etc. During the late severe and extensive epidemic, small-pox was frightfully prevalent at Kiel. In the beginning of last September cholera had just appeared in a mild form. The patients that are sent to the medical and surgical barracks are such applicants for relief as are believed by the superintendent to be able to lie in a large public ward; while the others are taken into the smaller wards in the hospital proper, which have been already described.

The diets in the Kiel Hospital seem quite equal to those in London, if not superior. The ordinary patients have soup, followed by meat, daily, except on Saturday, when they have fish. Along with the meat there seemed to be a variety of the numerous German *Salate*. One was somewhat surprised to find that almost every patient—at least in the medical wards—had a small bottle of port by his side.

The clinical lectures connected with the University are delivered by the respective professors in a large room in the administrative part of the Hospital. Professor Bartels lectures on clinical medicine, and Professor Esmarch on clinical surgery. The class-room is fully furnished for the accommodation of students, as well as with operating and gynæcological tables, cases of instruments, batteries, etc. A second room, leading off the clinical class-room, struck us as being specially worthy of description. This is a small clinical laboratory, fitted up and furnished with all the necessary apparatus and reagents for the qualitative and quantitative analysis of clinical products, especially urine, purulent and other discharges, fæces, etc. The analysis is the duty of a special chemist. The urine, for example, of the patients is collected in large clear glass bottles, which may be seen brought to the clinical laboratory by the dozen. We would commend this arrangement for the accurate and minute analysis of clinical products to the notice of the officers of our metropolitan hospitals.

Much might be written about the surgical practice at Kiel. But Esmarch's name, and the details of the valuable improvement in operative surgery with which it is especially associated, are now so familiar to every English surgeon, that the reader will be spared the repetition of what has been so prominent in our medical journals during the last few months. And this all the more that an abstract of a report by Dr. D'Espine, of Geneva, on the Kiel surgery, as well as on many other interesting points about the University, Hospital, and lying-in institution, has lately appeared in the *Medical Times and Gazette* (October 11, 1873, p. 420).

Altogether the Hospital at Kiel contains about 250 beds, in which, on an average, 160 to 200 patients are accommodated. The annual number of out-patients is about equal to that of the in-patients; they are seen at nine o'clock in the morning. Every in-patient pays fifteen Silbergroschen (about eighteenpence English) a day, if he can afford it. There are but few accidents brought to the Hospital, and there is no disease peculiar to the district or specially common in it. The examination of every in-patient, without exception, is completed on admission, even to the most minute details. For example, a patient with simple ulcer of the leg undergoes a most careful examination of heart, lungs, and every other organ and system of organs whatsoever; and a regular record is kept of the details.

The Pathological Institute is a small building in the rear of the hospital proper. It was here that Cohnheim worked and lectured from 1868 to 1871, as Professor of Pathological Anatomy in the University, before he was called to Breslau. His successor, the present professor, Dr. Heller, was formerly at Erlangen and Marburg. As the chief physician and surgeon of the Hospital are clinical professors in the University, so the pathologist is professor of pathological anatomy. The institute is sufficiently roomy and well appointed. It contains four principal apartments; the first, a necropsy-room, which is not peculiar; the second, a demonstration- or lecture-room, which is also fitted up round the walls as a museum; the third, the private room of the professor; and the fourth, a small laboratory for experiment and preparation. About 300 post-mortem examinations are made annually. Some account has already been given of the time devoted in Germany to the study of pathological anatomy. The course of lectures at Kiel is made very practical, by the exhibition of specimens from the collection in the lecture-room; and the plan is altogether very much the same as that followed in Berlin.

There is also a *Poliklinic* or Dispensary in Kiel, under the direction of Professor Edlefsen. The patients or their friends attend at the old university buildings, where the ambulants are treated, and the students instructed by the Professor in diagnosis and the art of prescribing. The patients confined to bed are visited at their homes, and the most interesting cases sent to the Hospital. Post-mortem, an examination of every poliklinical case at the pathological institute may be demanded by the professor; and this arrangement is the source of about one-third of the necropsies there.

On Tuesday, the 13th instant, a complimentary banquet was given by the most influential gentry and tradesmen of the Isle of Wight to Benjamin Barrow, Esq., J.P., F.R.C.S., in consideration of the many services he has rendered the island, and as a mark of the high esteem in which he is held by the inhabitants of the whole island, especially of Ryde and its neighbourhood.

There were at Munich, on Sunday, the 11th instant (states *Galignani*), seventeen cases of cholera and fifteen deaths. The total number since the reappearance of the malady on November 17 is 2138 cases and 988 deaths. The suburbs are not included in this list.

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METROPOLITAN WATERS IN 1873.

The following are the returns made by Dr. Letheby to the Society of Medical Officers of Health of the average composition and quality of the metropolitan waters in the year 1873:—

Names of Water Companies.	Total Solid Matter per Gallon.	Oxygen required by Organic Matter, &c.	Nitrogen.		Hardness.	
			As Nitrates &c.	As Ammonia.	Before Boiling.	After Boiling.
Thames Water Companies.	Grains.	Grains.	Grains.	Grains.	Degs.	Degs.
Grand Junction	19·67	0·073	0·133	0·002	15·2	3·6
West Middlesex	18·77	0·035	0·135	0·001	14·6	3·4
Southwark & Vauxhall	19·41	0·067	0·122	0·002	15·0	3·6
Chelsea	19·29	0·079	0·123	0·002	15·0	3·6
Lambeth	19·28	0·073	0·117	0·002	14·9	3·6
Other Companies.						
Kent	28·25	0·007	0·224	0·000	21·0	5·8
New River	19·13	0·033	0·134	0·000	14·9	3·3
East London	19·55	0·056	0·153	0·001	15·0	3·9

Note.—The amount of oxygen required to oxidise the organic matter, nitrites, etc., is determined by a standard solution of permanganate of potash acting for three hours; and in the case of the metropolitan waters the quantity of organic matter is about eight times the amount of oxygen required by it.

The saline constituents of the Thames water have averaged a little more than 19 grains per gallon—the range in the proportion during the year having been from about 22 grains per gallon in February, to about 17 grains in September. The same has been the case with the water supplied by the New River and the East London Companies, while that from the deep chalk wells of the Kent Company has nearly always contained about 28 grains of saline matter per imperial gallon. In all cases the chief constituents of the water have been carbonate of lime, with a little carbonate of magnesia, sulphate of lime, chloride of sodium, and nitrate of magnesia. The chloride of sodium in the Thames supply has averaged about 1·8 grains per gallon, in the chalk-water 2·6 grains; while the proportion of nitrogen as nitrate has been about 0·22 per gallon in the last-named water, and about 0·13 in the others—the nitrogen as ammonia (actual and organic) being almost *nil* in the Kent water, and less than the one-hundredth part of a grain in that of the other companies. The proportion of organic matter in the water has therefore been small; for, whether it be estimated by the organic nitrogen, or by the amount of oxygen required to oxidise it, or by the loss on incineration, it has always been less than three-quarters of a grain per imperial gallon.

The hardness of the water has ranged from 21 degrees in the case of the Kent water, to about 15 degrees in that of the other companies; and this has been reduced to 5·8 degrees and 3·6 degrees respectively by boiling the water for a quarter of an hour.

As regards turbidity, it has been found that on examining the water in large volume, as in a glass tube two feet in length, the water of the West Middlesex, the New River, the East London, and the Kent Companies has at all times been bright and nearly colourless, whereas that of the other companies has frequently been a little turbid from imperfect filtration.

The average quantity of water supplied daily by each of the water companies has been as follows:—

Water companies.	Gallons per diem.	No. of houses.
Grand Junction...	11,545,521	34,176
West Middlesex	9,401,316	44,811
Southwark	18,275,892	79,332
Chelsea	8,234,950	29,295
Lambeth...	12,089,933	49,630
Kent	6,558,860	41,968
New River	24,629,917	121,304
East London	22,484,976	104,560
Total...	113,218,365	504,076

The smallest daily supply (101,041,928 gallons) was in February, and the largest (126,240,210 gallons per diem) in August, so that the supply has ranged from 30·5 gallons per head per diem to 37·7 gallons—the average for the whole year being 33·7 gallons.

TYPHUS FEVER has broken out in the Industrial Schools, Dundee. The superintendent has died, and others of the officials are suffering from the fever.

REVIEWS.

The Principles and Practice of Surgery. By WILLIAM PIRRIE, F.R.S.E. Third edition. London: J. and A. Churchill. 1873.

ALTHOUGH this is the third edition of a text-book which is already pretty widely known—at least in Scotland, and by the students of the university of which the author is one of the most distinguished professors—the fact of its having been nearly entirely rewritten calls for some notice at our hands. We have, indeed, so large a collection of surgical text-books that the student is liable to no little embarrassment in making a choice between them, and it is perhaps to be regretted that surgeons think it worth while to add to the number, without affecting to produce works of greatly superior merit, whether in completeness of detail or in conciseness of expression. With such an excellent manual as the old favourite "Druitt's Vade-Mecum," with the more complete and detailed treatise of Erichsen, and, for the more ardent and advanced student, Holmes's splendid "System of Surgery," we have been surprised from time to time, and disappointed, at the waste of energy displayed in the production of the many other works on the same subject which have issued from the press during the past two or three years. Not that we would put all these works on the same level of merit, by any means; but they all alike seem to us to be superfluous, for they are all inferior in one or other respect to the three widely read manuals already mentioned; and we confess that this book of Professor Pirrie's is no exception to the rule. As a trustworthy guide to the student, we think it inferior to more than one well-known text-book, and as a gracefully written, thoroughly readable work, which might take rank as a surgical "Watson"—still a great desideratum—it can take no place at all.

This said, however, we are bound to congratulate the author on the successful manner in which he expresses most things clearly and plainly for students, and on the conscientious care with which this edition has evidently been endeavoured to be brought up to the most recent views. We are forced to say "endeavoured," because we conceive that this is really one of the weak points of the volume. A thorough revision by some young surgeon practically conversant with the latest pathological work at home and abroad would have been of the greatest service to the book, and have prevented the insertion of some very irritating statements.

For instance, the disease absurdly styled by surgeons "lipoma of the nose" is well illustrated by a couple of sketches from Liston, and his account of the operation for its relief is quoted, but the reader is misled by the statement, "The histological characters of lipoma have already been described." Now, on searching the volume for this description—a task which the very meagre index renders sufficiently troublesome,—the only one found is that of the microscopic structure of ordinary fatty tumour or lipoma, a structure absolutely unlike that of the skin hypertrophy of the nose which is really meant. Pathologists know well enough that this disease consists only of a hypertrophy of the skin and subcutaneous connective tissue, and that the name "lipoma" is therefore calculated to mislead.

In like manner there is a confusing mixture of old and new views in the chapter on scrofula and tubercle, which must certainly puzzle the student, and detracts no little from the excellent remarks upon treatment, and the valuable insistance upon hygienic measures in preventing the development of so-called scrofulous evils.

In the section on cancer, also, the description of the histology of medullary cancer conveys a not very lucid idea to the student, the confusion with certain of the sarcomata being as observable here as in most of the accounts in surgical text-books. By the way, Professor Pirrie is a warm advocate of the "constitutional" nature of cancer, which he states to be a "growing belief." His explanation of the essence of cancer is, however, not very satisfying to the student, who naturally seeks for some definite physical ground to go upon. The Professor says—"In truly malignant tumours some material is formed in the blood, or some abnormal taint or tendency—dependent on some unknown material condition—is given to it, which manifests itself in some part where the local nutrition is so modified that the tissues can appropriate and develope the materials in a way which, as Mr. Huxley, I think, has said, is not subordinate to the general plan." This somewhat bewildering collection of unproven hypotheses strikes

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us as little calculated to aid in spreading a belief which we fancy is really losing ground daily both in Great Britain and abroad. It is at least gratifying to find that in practice Professor Pirrie is more successful than such a discouraging creed would lead us to expect, one of his patients from whom he removed a scirrhous breast having survived twenty-five years, and another twenty-two years, both ladies still continuing in good health.

We are disappointed to find that the author is strongly opposed to the operation of colotomy for the relief of the intense suffering caused by malignant disease of the rectum. He says—"Nothing would induce me to operate in cases of malformation in new-born infants, or of malignant diseases, because, if not unwarrantable, it is clearly unadvisable." We have seen such unmistakable relief follow this operation in cases of cancer, and such a clear prolongation of life in comparative comfort, that we feel sure that Professor Pirrie, in speaking so strongly, does so from a limited experience, and that the results obtained by Bryant, Maunder, and other London surgeons of late should make us hesitate to return to the older views.

In the very brief account of diseases of the nose, ozœna is not mentioned at all; nor is any reference made to the valuable method of "syringing through" by means of a continuous stream from a syphon-douche, for which we are mainly indebted to Dr. Thudichum.

Affections of the eye are wholly disregarded, although, as it seems to us, a surgical text-book cannot be said to be complete without at least a description of such common injuries and superficial affections of the eye as every practitioner may be called upon to treat at any moment.

In the article on abscess no mention is made of the important pathological connexion between chronic abscess and amyloid changes in the viscera, nor is the method of aspiration introduced by M. Dieulafoy referred to.

In the account of stiff and painful joints the views recently set forth by Wharton Hood, in explanation of the results obtained by so-called "bone-setters," are not noticed; and, in short, in very many particulars, in which we hopefully looked for instruction according to the most recent views, we have been disappointed.

On the other hand, the practical instructions for students in minor surgery are excellent; the therapeutical views expressed are for the most part characterised by thoroughly good sense and sound judgment; and, if on the whole the work does not come up to the standard we had expected from so accomplished and able a teacher as Professor Pirrie is known to be, it yet bears abundant marks of the wide experience and carefully matured opinions of a practical surgeon of high standing and culture, whilst the printing, binding, and engraving of the numerous woodcuts—a large number of which are selected from other sources—leave nothing to be desired.

The Local Government Directory, Almanac, and Guide for the year 1874. Knight and Co. Pp. 480.

This volume—it cannot be called a little one—deserves a few words of praise and recommendation for its completeness and usefulness. Besides other information of various kinds, it contains a list of unions formed by the Poor-law Commissioners and the Poor-law Board, with the area and population of each union, etc.; the number of parishes, and of elected and *ex-officio* guardians; the days of meeting of the guardians; the names and addresses of the clerks and treasurers, of the chairmen and vice-chairmen, and of the masters; the names of the medical officers; the names of the chaplains and the medical officers of workhouses; the names and certificates of the workhouse teachers; and the workhouse accommodation of each union, etc. Also lists of public analysts, with their addresses; of the urban, rural, and port sanitary authorities under the Public Health Act; of school boards; burial boards; of reformatory and industrial schools; of county and borough asylums, metropolitan and provincial houses, and hospitals receiving lunatics; of district auditors; and of school districts formed by the Poor-law Board. And, of course, the Local Government legislation of 1873 is given. The book appears to be well arranged, so as to make reference to any of its subjects easy.

The Town Council of Bradford have just decided to appoint a public analyst at a salary of £100 a year.

GENERAL CORRESPONDENCE.

BLOODLESS SURGERY.

Letter from Professor Spence.

[To the Editor of the Medical Times and Gazette.]

Sir,—In the last number of your journal (January 17), I notice a letter from Mr. Mac Cormac, in reference to what is termed "Esmarch's Bloodless Method of Operating." If I understand his reasoning in favour of Esmarch's claim to the merit of introducing the method, it is, that whilst others may have occasionally used similar means, Esmarch has the merit of being the first who based it on a principle, and that his method is, in its details, "novel and simple."

Surely, Sir, the surgical teaching and writings of Sir Charles Bell are not so antiquated as to be quite forgotten; but in case they may be less consulted now than they deserve, I quote the following foot-note from his "Illustrations of the Great Operations of Surgery," published in 1821 (page 58):—"I may here observe that by the management of the tourniquet blood may be lost or gained. If the garter or strap of the instrument be applied so tight as to prevent the return of the blood, and yet not to compress the artery, the limb becomes gorged with blood. But if, on the contrary, the limb be uniformly rolled before amputation, the veins are emptied into the general system, and blood is saved instead of being withdrawn." Here, I think, we have the principle of the procedure very clearly enunciated; and as to the novelty or simplicity of the details, with the exception that Esmarch uses an indiarubber elastic band (a much less manageable compressor) instead of the tourniquet, I see nothing in these different from those of Sir Charles Bell's method. So much for the merit of priority in introducing this plan of saving blood.

In regard to its intrinsic merit, that is more a matter of opinion; but, having had a pretty large experience in amputations and other operations, I cannot help thinking that it is much overrated. It seems to me that Mr. Mac Cormac assumes rather hastily that the value of the procedure is now very generally admitted; or that, "so simple and so efficient is it, that its use has become general—epidemic, in short." In the present day any apparent novelty in practice is so quickly diffused by means of the medical press, and attracts so much attention, that many are induced to try it; but it does not necessarily follow that all who do so, acknowledge its practical value or continue to use it. In regard to the method under consideration, I have on one or two occasions used it when operating in the hospital, but merely to point out—first, that it was not new in principle; and secondly, by contrasting it with the use of the tourniquet alone in other cases, to show that in neither case was there any loss of blood until it became necessary to slack the circular compressor, to see and secure the smaller vessels, and that of course must be done whichever method is used. So far as I can learn, the "epidemic" has been very mild in this neighbourhood. Time must show whether the method will be more appreciated by surgeons than formerly, or whether it will again fall into disuse.

I am, &c., James Spence,
Professor of Surgery, University of Edinburgh.

21A, Ainslie-place, Edinburgh, January 19.

THE LATE DR. FRANCIS C. WEBB.

Letter from Dr. R. Druitt.

[To the Editor of the Medical Times and Gazette.]

Sir,—I have just received the sad intelligence of the death of my friend and fellow-labourer, Dr. F. C. Webb, and trust I may be permitted to pay a hasty tribute to his memory.

It is needless to speak of his genial temper, his diversified accomplishments, his ready wit, and unflagging industry. But only they who had the good fortune to be associated with him, as I was for many years, can bear witness to his remarkable possession of those good qualities which enable men to get on with their fellow-men—his unselfishness, kindness of heart, and, above all, his thoroughly high and firm principles and Christianly-minded heart.

Any of your readers who knew Dr. Webb will excuse me for thus wishing to add my personal testimony to his worth and the loss his family and friends have sustained.

Madras, December 27, 1873. I am, &c., R. Druitt.

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THE UNITED HOSPITALS AT GUY'S AND ST. THOMAS'S.

Letter from Mr. J. F. Clarke.

[To the Editor of the Medical Times and Gazette.]

Sir,—In your last issue, Mr. Le Gros Clark thus speaks of an article of mine:—"In your number of January 3 there is a paper entitled 'A Case of Divorce,' in which Mr. J. F. Clarke describes a scene that took place in St. Thomas's Hospital in 1836. This account contains inaccuracies, and imputes to the officials of the Hospital discreditable conduct, which, if uncontradicted, may be accepted as a correct historical account of this transaction." This is a very grave charge indeed to bring against a public writer. But I join issue with Mr. Clark at once, and deny positively that there is any inaccuracy or any imputation in the article to which he refers. I admit the omission in my account which Mr. Clark supplies—an omission which I discovered immediately after my article appeared, and which omission I intended to supply in the present number. The offender in this case was one of the gentlemen who were committed for trial at the sessions. Fortunately, at the end of thirty-seven years, I do not depend on my "recollections" of the transaction in question. I base my statements on a report furnished at the time by a gentleman having no connexion with either Hospital, and published to the world immediately after the occurrence. I am not aware that the accuracy of that report has ever before been called into question. But I am further fortified by the sworn evidence given at the police-court, and which substantiated in every essential particular the accuracy of the report. I was present in court, and have before me the account which I furnished to the *Lancet* at the time. I will now answer Mr. Le Gros Clark's charges against me *seriatim*.

1. Mr. Clark asserts that the usage of students showing their tickets before entering the operating theatre prevailed previously, and that this "condition of admittance to the Guy's theatre was equally exacted from the St. Thomas's men." If this is stated on the personal knowledge of Mr. Le Gros Clark, I have nothing to say; but surely it is remarkable that, if it were so, Mr. Phillips should have grounded his defence on the plea that "regulations were enforced on this occasion in opposition to right and custom." It is incredible to suppose that a shrewd lawyer like Mr. Adolphus should not have pleaded that the same regulations were in force at Guy's. But he made no such assertion. He contented himself with regarding the case as one of "riot and assault," as presented to him by the evidence. Here I think he was quite right, and I agree with him that there was no legal justification for the course pursued by the students of Guy's. But this is beside the question of the accuracy of my account of the affair.

2. Mr. Clark says that a notice that *three* patients were to be operated upon for lithotomy is "inaccurate." I do not admit this; but it is a matter of no importance whether there were three or two operations to be performed. At all events there was an unusual number of students present. Mr. Clark has no "recollection that the porters took the initiative by insolence, violence, insult, impertinent interference, drawing a constable's staff, etc." But the sworn evidence before the police magistrate proved that they did so. On this sworn evidence I rely in my account, and not on "recollection."

3. Mr. Clark demurs to my statement that "other policemen and porters interfered," and adds that "there were no police present at this time; if they were, such a fact would be conclusive proof that a premeditated disturbance was anticipated." Now, I say that such a disturbance *was* anticipated; if not, why should one of the porters of St. Thomas's have been sworn in as a "constable" the day before the expected "riot"? But there were police-constables present soon after the commencement of the fray; only those, however, who were on duty in St. Thomas's-street and the immediate neighbourhood. It is not only not "impossible," but it is a fact, that "police were afterwards sent for by the authorities—and very properly so—to quell the disturbance."

4. Mr. Clark says that the reference to the part taken by "one of the surgeons of St. Thomas's in this affray might be accepted as a harmless sensational colouring of the picture, and passed by unheeded, were it not that the remarks are an unjustifiable reflection on the conduct of gentlemen whose memory is held in respect by all who knew them." Really, this is "too bad." The gentleman who took the prominent part in the affair is still amongst the "living"; and if Mr. Le Gros Clark will take the trouble to refer to the *Lancet*, vol. i., 1836-37, p. 471, he will find how grievously he has been mistaken in his "recollections." I have no fault to find with Mr. Clark's assertion that "this riot originated in an unjustifiable resistance to authority. The regulation which was infringed in this instance was a wholesome one, and its strict enforcement was called for by the students themselves, for whose special behoof it was framed. It is therefore unjust to impute the blame of the disturbance to the officials of the hospital, and especially to the surgeons, who very properly refused to operate amid such disorder." With this opinion I cordially agree. The whole affair was, no doubt, discreditable to all the parties concerned. We all know what is often done in the heat of passion and excitement. I have no feeling on either side,—I have simply told the story in plain language. I have "imputed" nothing to anyone; the facts speak for themselves, and as related by me "may be accepted as a correct historical account of this transaction."

I am, &c.,
J. F. Clarke.

WINE AS A BEVERAGE AND A MEDICINE.

Letter from Mr. John Postgate.

[To the Editor of the Medical Times and Gazette.]

Sir,—Allow me a portion of your space to say that the writer of the article "Wine as a Beverage or Medicinal Agent," in the *Medical Times and Gazette* of the 10th inst., has been singularly fortunate in meeting with pure sherry wine mixed with pure brandy. Pure wine, I need scarcely say, is the juice of the grape fermented, and pure brandy is the spirit distilled from it; both differ *in toto* from the manufactured articles frequently sold as wine and brandy in England. My attention has often been called to the compound named "sherry" from its effects on the system—namely, uneasiness, then pain in the stomach, with acidity and frontal headache. Last year I had several samples of sherry forwarded to me for analysis, in consequence of those results. The sherry contained mixed spirit of a rank sort—sulphuric acid and fusel oil in abundance. No wonder, then, people are advised to put the glass of sherry into a tumbler and fill it up with water. It may interest your readers to know that the prices of the sherry varied from 30s. to 72s. per dozen, and that some of it was both thin and dry. I know several persons who cannot take sherry without at once suffering pain; and commercial men going about the country condemn the article in no measured terms. There is an expression used in reference to a coppery sensation in the mouth and stomach after a couple of glasses of sherry, which I need not repeat in your columns. Sherry is imported direct from Spain quite unfit for use. Some years ago I had samples sent up from Liverpool. The wine had been surcharged with a heavy duty as mixed spirits, which the Birmingham merchants refused to pay, and they had ordered samples of the wine to be forwarded to me for analysis and report. My examination confirmed that at Liverpool. The Birmingham firm declined to receive the wine, which was reshipped to Spain, and their agent in that country was requested to remit cash for the Birmingham goods sent out. The wine was a pernicious mixture of the description given above. With regard to wines in England, the public taste is perverted—vitiated and adulterated—so that really pure and wholesome wine finds a sale with difficulty. It is vinous spirit *v.* corn and potato spirit. I trust, however, the importation of natural wine will improve the public palate and lead to the consumption of more wholesome stimulants.

I am, &c.,
Birmingham, January 17. John Postgate.

Letter from Mr. J. W. Turner, F.R.C.S.

[To the Editor of the Medical Times and Gazette.]

Sir,—An article in your issue of the *Medical Times and Gazette* of January 10, headed "Wine as a Beverage or Medicinal Agent," concludes thus:—"To the successful practice of medicine it is essential that the practitioner should always be able to give a 'reason' for the treatment he pursues, as wine, as a medicinal agent, is one of the last importance. *We* offer no apologies to our readers for giving them the information contained in this article."

I know not how many opinions have combined to give the profession the points conveyed in this article, and delivered as "we," but for my part I cannot see the reason why we—the

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public and the profession—should not get pure, natural wines from Spain and Portugal. We can adulterate them here with spirit, if our patients require it, or our own stomachs have become so callous and abnormal by the abuse and use of the so-called wines—sherry and port, or other fortified wines—that we feel no warmth of heart or stomach when taking any moderate quantity of natural wine.

It is a mere mercantile means of palming off upon us new wines made to simulate old and seasoned ones by the agency of lime and crude spirit—the former precipitating the natural and non-injurious tartrates, the latter impeding the natural process of fermentation. Time and a moderate temperature would effect all we wish, precipitating any excess of tartrates, without which, in some degree, no natural wine exists.

How is it we can get natural and pure wines from Greece, the South of France, Sicily, Hungary, America, Australia? Yet we are told the Spanish and Portuguese wines will not bear the voyage without being fortified with spirit! A cask of wine was sent me from the South of France, and forwarded to a good firm of wine merchants to be bottled. They sent me word it was not worth the bottles, and only fit to pour down the gutter; and from the sample of it sent to me with this annoying intimation, I thought likewise. Fortunately the sender came to the rescue, and after two months' rest in the merchant's cellar in an even temperature this wine had quite righted itself, and turned out of the best quality. Now, all this doubt and delay would not suit the trade. "Far better fortify and clarify, that we may get into the market with it at once," say they. I have often wished to taste a glass of pure sherry or one of pure port, but never had the chance yet. The evil of these fortified wines for beverages is, that you cannot drink them as such without being stimulated in an unhealthy and unnatural degree. They drive on the machinery of life too fast; and those who can habituate themselves to such strong drinks without immediate ill effects, soon find they require them as a necessity, stronger and stronger, to keep up the same pace or tone. And whilst the appetite remains good there appears to be no great mischief done to the system; but with failing appetite and these strong drinks, very soon the unfortunate comes to grief. The dyspepsia so peculiar to those patients who insist upon stimulants being strengthening, because they are falsely propped up by them—the miserable creatures they are when not fortified by alcohol; the half-cough, half-sickness with which they begin their day, with red eyes and tremulous hand, not caring for any meal until the stomach is re-stimulated up to a morbid appetite,—is a sad witness, and looks like the beginning of a fearful end declaring itself, if persisted in, by disease of some important organ, heart's action over-driven, stomach over-stimulated or inflamed, liver gorged, and kidneys diseased; and if the delicate structures of the brain and nervous system escape for a time, 'tis but to end in utter incapacity for any sustained exertion, mental or physical. Not unfrequently, under the influence of strong stimulants, more sudden calamities befall the body or mind, and not a few criminal and social evils are bred by it. Therefore I look upon it as a moral obligation incumbent on every medical man, conversant as he must be with the dire diseases and distress it induces, to guard his patients from the habitual use of strong stimulants or the products of distillation, wherein lurk speedy death or more slow destruction of mind and body; and to guide them to use rather the products of fermentation which kind nature offers us in rich abundance. We may be permitted to "doctor" them ourselves if we think proper, but we do not agree to be dosed by non-medicals with only a mercantile diploma.

As to the necessity of brandy or any strong spirit as an occasional stimulant, there is room for diversity of opinion. For my part, during an active practice of thirty years, the necessity has never arisen; milder stimulants have done the work quite as well. Brandy won't save him! No, unless he has been used to depend on it, and then only for a brief space of time it may prolong a miserable existence. After long and wasting illnesses, gentle stimulants may help one to get up off the ground, but only food digested will enable one to walk home to health. In all accidents and injuries attended with hæmorrhage, internal or external, faintness, even prolonged, is nature's mode of saving one's life by diminishing the heart's action, or we might bleed to death. See here! how your strong stimulants are needed. "Set him up," says the public, "and pour brandy down his throat,"—and thus ignorantly kill him with kind intent!

Although the strongest natural wines may contain 26 or 27 per cent. of alcohol, this alcohol exists in some peculiar state of combination, the slower effect of which on the system does not appear to produce the same sudden and violent action as that produced by freed alcohol (or alcohol freed from its natural combination as existing in such fermented liquors), even should the freed alcohol be diluted to the same strength as the wine. I am led to suppose this from never having seen a case of drunkard's delirium produced from the use of natural wines, nor the blood-spots, tremors, diseased kidneys, hob-nailed liver, and other evils resulting from the use of freed alcohol. Brewers' draymen will be quoted against this, but be assured these fine fellows take more spirit than beer as a rule before they come under our care at hospital.

Undoubtedly all true or genuine wines have a natural tendency to vinegarise if exposed to air—the red wines more rapidly than the white; so that if half a bottle is put aside for a day or two, with its volume of air included, it will not be a very palatable beverage, however well corked; and the bottle reversed, as some recommend, would only agitate the air with the wine, making matters worse. Until we have discovered some vessel which will adapt itself to its contents, we must take the trouble to pour the remaining wine into smaller bottles, which it should fill to the exclusion of air, and then the wine will keep any reasonable time without injury to its quality.

A very good test of wine is its keeping in a decanter half-full thus in contact with air for a few days without any appreciable change. Such wine, we may rest assured, has been fortified with spirit, or it would have become partially vinegarised.

A great deal of nonsense is talked about "dry" wines. These are, as a rule, highly dosed with spirit. A natural dry wine is one where the fermentation of all its saccharine matter has been perfected by time and an even temperature. These wines are very uncommon, and acid to tests; and as a rule all natural wines *are* acid. No doubt the weaker wines are more to the palate, more acescent from tartrates, but not consequently injurious in any way to health, although not palatable to the freed spirit drinkers. Pray pardon this long exposition from

Yours, &c.,
J. W. Turner, F.R.C.S.

31, Lower Phillimore-place, Kensington, W.

REPORTS OF SOCIETIES.

ROYAL MEDICAL AND CHIRURGICAL SOCIETY.

Tuesday, January 13.

Dr. C. J. B. Williams, F.R.S., President, in the Chair.

Mr. Le Gros Clark showed a specimen of Large Adenocele, complicated with Milk Cyst. E. H., aged twenty-four, married, was admitted into St. Thomas's Hospital in November, 1872. At the age of sixteen she first noticed a swelling in the breast, which had gradually increased to its present large dimensions, but unattended by pain. She had been married two years, and had an infant seven months old. The bulk of the tumour was below the nipple, and the entire mass measured twenty-six inches and a half in circumference. It was removed on December 4, and the true gland, being almost entirely distinct, was only partially removed with it. The patient made a good recovery. The solid tumour weighed between eight and nine pounds, and proved to be adenoid growth, resembling, on section, the structure of healthy breast-tissue. In its interior was a large cavity, containing about two pints of thick creamy milk. Its lining membrane was ragged and fibrinous. Its microscopic characters were those of true gland-tissue. The patient has been again recently confined, and suffered only temporary inconvenience at the early period of lactation. Mr. Le Gros Clark said Mr. Birkett had asked him whether the rapidly increasing size of the tumour would suggest the accumulation of milk as the cause, or had it attained its chief magnitude previous to marriage and the birth of the child. He could only say that the patient had said there was no remarkable increase in the size of the tumour after her confinement. He could not say whether the abnormal gland-tissue had secreted milk during lactation, like the ordinary mammary gland-tissue, and so formed a milk cyst; and the thickened walls had prevented any signs of it being recognised.

Mr. Birkett said such cases were exceedingly rare. He

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thought the one he had published in the "Guy's Hospital Reports" was the only one on record where such tissue with such good milk was found. There is a marked distinction between these cases and the ordinary adenoid growths. They must be considered perfect glands, which, developed at a certain age (sixteen in this case), grew after that period: it was so in his case, where the tumour was not removed for a time, as the patient was either pregnant or suckling. It was more solid than the one described by Mr. Clark; it contained only a small cyst full of a mass like cream-cheese; the serous part had been absorbed. On the walls of the cyst there were decided ducts, so we must consider them as developments of genuine breasts without nipples or excretory ducts. He had recorded one other case where he removed a cyst with a large quantity of fluid—serum, pus, and milk. This had grown much more rapidly; on the surface there were many adenoid growths, but the milk came from the ordinary mammary gland-tissue. German writers (Billroth, etc.) say it is impossible that the new (adenoid) growth could secrete milk, and so strengthen his view that they are supernumerary mammary glands.

Mr. Walter Rivington read a paper "On Dislocations of the First and Second Pieces of the Sternum." The object of the paper was to give an explanation of the mode of occurrence of dislocations of the sternum, illustrated by cases coming under observation at the London Hospital; and to account for their peculiarities by the anatomy of the superior sternal articulation. That dislocations and fractures of the sternum might be produced by direct or indirect violence, and that they frequently complicated fractures and dislocations of the spine, were well-recognised facts; but as to the mode of their occurrence, both conflicting and indefinite explanations had been offered. Of fourteen cases collected by Mr. Poland, the displacement was due or was attributed—in four, to force applied immediately to the sternum; in one, to violent lateral compression of the chest; in one, to muscular action; in one, to flexion of the body forwards as the result of a fall; in three, to falls from a height on to the back; in two, to falls from a height, the part struck not being mentioned; whilst in one the cause was not stated. Precisely similar causes had been assigned to fractures of the sternum, and the two classes of injury had so much in common that some writers included displacements of the sternum under the head of fractures. In the large majority of cases of both, the upper fragment was found lying behind the lower. In displacements, for instance, the manubrium was almost invariably found lying behind the gladiolus, the second pair of ribs remaining attached to the manubrium, and the strong posterior layer of periosteum untorn, but stripped up from the bone, holding the two segments together. The only recorded exception to this disposition of the segments known to the author was a case recorded by Sabatier. The position of the manubrium behind the gladiolus had been generally attributed to the direct force of the blow, pushing it backwards; but the same effect might be produced, in all probability, by force applied to the body of the sternum, the elasticity of the ribs and costal cartilages attached to it causing it to rebound after it had been depressed. This was M. Maisonneuve's suggestion, and it appeared the more probable because the gladiolus was more exposed to violence. The question might arise whether a particular fracture or displacement had been the result of direct or indirect force. The injuries to the sternum, for instance, which complicated fractures and displacements were often attributed by some surgeons to a violent descent of the chin on to the bone, and often explained by others as the effect of counter-stroke; others, again, regarded them as the result of a doubling forwards of the sternum, caused by forcible flexion of the spine. That violent descent of the chin on to the sternum might occasion fracture was both *à priori* probable and was supported by the records of cases. The author quoted a case which had occurred in the practice of his colleague, Mr. Couper, at the London Hospital, as one apparently of this nature. An acrobat of thirty, in turning a double somersault, fell about ten feet on to the back of his head. He came down on some tan, and his head was violently flexed on to his chest. The injury caused a separation between the sixth and seventh cervical vertebræ, and an oblique fracture of the sternum, such as might have been produced by the chin inclined to one side. The author believed that the descent of the chin on to the sternum was far more likely to occasion a fracture than a dislocation, and that it was only in cases of disruption of the ligaments uniting two of the cervical vertebræ, by which a freer flexion of the head could be effected, that this cause came into operation. Neither Mr. Poland nor Mr. Hamilton mentioned it, and certainly it had been used to explain cases due to forcible flexion and extension of the dorsal spine. Two cases were then related by the author in exemplification of the influence of forcible flexion and extension of the dorsal spine on the sternum, in both of which the injury had been attributed by some to the patient's chin. In the first case, a man, thirty-seven years of age, was walking in the street when some scaffolding fell on his head. The vertical force thus applied caused fracture and crushing of the third dorsal vertebra, and the violent flexion of the dorsal vertebræ, acting through the medium of the ribs, produced disruption of the ligaments uniting the manubrium and gladiolus. In the second case, a man, fifty-five years of age, was standing on the floor of a warehouse, when a bag of seeds, falling from a height, alighted on his back between the scapulæ, fracturing the six upper ribs on the left side near their angles, breaking off the spinous processes of the six upper dorsal vertebræ, and fracturing the body of the sixth dorsal vertebra. The dorsal spine was thus violently extended, the shock was conveyed through the ribs to the sternum, but, owing to the greater length and leverage of the five lower true ribs, more powerfully to the gladiolus than to the manubrium, and hence the occurrence of a dislocation of the two segments. This driving forwards of the gladiolus, either separately or more powerfully than the manubrium, which was held firmly by the first pair of ribs, would appear to be the correct explanation of some recorded cases explained in a different manner, as, for example, by muscular action, such as fractures or displacements from simple falls on the back, or from falls in which the back strikes against a prominent object, or falls on to the feet and nates, the body finally falling over on to the back. The lever-like action of the ribs came into play during compression of the chest, and in cases in which the force was applied unilaterally as well as in overarching of the back by violent contraction of the muscles during the expulsive efforts of labour. The frequency and pathological peculiarities of dislocations were fully explained by the anatomy of the articulation. Although the English anatomical text-books merely stated that the manubrium and gladiolus were united by a single piece of symphysial cartilage, there were in reality two distinct kinds of joint found between them—the amphi-arthrodial and the diarthrodial. Having noticed this in examining specimens in the post-mortem room at the London Hospital, the author turned to the authorities, and, finding no mention of the fact in English books, consulted a French "Anatomy" by M. Jamain, in which M. Maisonneuve's researches were epitomised. Thirty years ago M. Maisonneuve had fully described the two kinds of joint in a paper on Luxations of the Sternum, published in the *Archives Générales de Médecine* (serie iii., tome xiv.). In the amphi-arthrodial joint there was a single piece of true fibro-cartilage uniting the segments, more thin and friable in the centre than at the periphery. In the diarthrodial each bone was clothed with a distinct lamina of cartilage, adherent on one side, free on the other; and the cartilage belonging to the gladiolus was continued without interruption on to the facets for the cartilages of the second ribs. The spur of the second costal cartilage was joined to the manubrial layer, thus shutting out the articulation formed between the upper facet on the second costal cartilage and the manubrium from the true sternal joint, whilst the lower chondro-sternal articulation was continuous with it. These anatomical peculiarities explained the adhesion of the second costal cartilages to the manubrium in dislocations, and the presence of a distinct layer of cartilage on the end of each segment. M. Maisonneuve's accurate description of the layers of periosteum clothing the anterior and posterior aspects of the sternum was quoted. The anterior coat was described by him as thicker than the posterior, strongly adherent to the bones, and forming a sort of felt, possessing a great power of resistance, especially in the transverse direction, whilst the posterior layer was composed of longitudinal fibres, adhering but slightly to the chondro-sternal articulations. As the force of injuries generally acted from behind forwards through the ribs, and as the sternum forms an arch with its highest point at or near the junction of the manubrium and gladiolus, the greatest strain usually fell on the anterior ligaments; and when the segments had been separated by the rupture of these ligaments, the gladiolus was carried forwards and upwards in front of the manubrium, and the end of the latter becoming inserted like a wedge between the posterior layer of periosteum and the body of the sternum, that layer was stripped up from

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the bone as far as, but no further than, the level of the third pair of ribs. Violence applied to the sternum in front, and occasioning fracture, caused the ends of the bone to be bent inwards, rupturing the posterior ligament, but not generally tearing the anterior layer. The author differed from some of M. Maisonneuve's conclusions. M. Maisonneuve, without stating the number of his observations, placed the proportion of diarthrodial to amphiarthrodial joints as high as three out of five, and found the diarthrodial joint more often in females than males. In children the diarthrodial joint was rare. The author's observations showed a preponderance of the amphiarthrodial joint and the greater frequency of the diarthrodial form in males than females. Out of 100 fresh sterna examined by him, fifty-one were amphiarthrodial, six ossified, thirty-two diarthrodial, and eleven of a mixed nature, the separation between the segments being incomplete. The diarthrodial joint was met with at all ages, and in very old people without a trace of ossification. The author had found it in old people between seventy and eighty years of age. On the other hand, the amphiarthrodial form was subject to ossification at a comparatively early age. The author had seen ossification at thirty-four and thirty-six years of age. He believed that the diarthrodial joint was formed by absorption after puberty. M. Maisonneuve had ascribed to the clavicles great influence in causing dislocation of the manubrium, because fracture of the clavicle was often found accompanying the injury. The author attributed far more influence to the first and second pairs of ribs, which were united to the manubrium much less movably than the clavicle, and must exercise more power over it both in forcible flexion and extension of the dorsal spine and in cases in which the violence is applied unilaterally. If a fresh specimen be examined, in which the diarthrodial joint exists, or in which there is a tolerably thick symphysial cartilage, it will be found that, in addition to gliding movements forwards and backwards (varying much in degree in different specimens), some rotary motion is obtainable. This must favour displacement from unilateral violence; and it seems obvious that the first and second ribs must be chiefly concerned in giving the necessary twist to the manubrium. Two cases were referred to in illustration of these views. A man, forty-five years of age, fell from a plank about fifteen feet to the ground on to his back, the two upper dorsal vertebræ coming in contact with a piece of timber a foot square. Great pain was felt at the upper sternal joint, and tenderness on pressure remained for several days, showing that the joint had been severely strained, although the force conveyed by the second ribs had been insufficient to occasion a dislocation. A man, thirty-six years of age, fell off a gate on to the back of his head and neck, the lower part of the neck coming into contact with a large stone. The fifth and sixth cervical vertebræ were separated, and the first left rib was separated from the manubrium. On examining the sternum it was found unusually thick, with the upper joint completely ossified. Under ordinary circumstances the force conveyed along the rib would have caused a dislocation or fracture of the sternum; but, owing to the unusual strength of the bone, the rib became separated instead. A *résumé* of the main points concluded the paper, which was illustrated by specimens showing the two different kinds of joint and the effects of dislocation.

Dr. Norman Moore asked if one of the patients had emphysematous lungs. He had lately dissected some patients whose chests seemed weakened in this way.

Mr. Holmes asked why Mr. Rivington believed that the impinging of the chin against the sternum in the way described would produce fracture. He thought there must be some direct evidence before this was accepted.

Mr. Barwell had seen a case where the shape of the bruise on the chin and breast exactly corresponded.

Mr. Le Gros Clark said this was surely no proof. He had never seen any case of fractured sternum the result of direct violence except the ribs were also fractured.

Mr. Rivington said there was no evidence of emphysema, but no doubt that would favour any injury. He did not say that the chin actually produced dislocation, but thought it might.

In London last week there were 1553 deaths registered, which was 312 below the average. The annual death-rate in the two previous weeks was 29 and 25 per 1000, which further declined last week to 24. The fatal cases of measles continue excessive, 87 having occurred during the week.

MEDICAL NEWS.

King and Queen's College of Physicians, Ireland.—At the usual monthly examination of the College, held on Tuesday, Wednesday, and Thursday, January 13, 14, and 15, the Licence to Practise Medicine was granted to—

Bourke, Martin Edward. | Denny, Rowland John.
Browne, Elliott Sanderson. | Stoker, Richard Nugent.

The following obtained the Midwifery Diploma :—

Lovejoy, Wallace Williams, M.D. Harv. Univ. Camb. (Mass.)
Stoker, Richard Nugent.

Royal College of Surgeons of England.—The following gentlemen, having undergone the necessary examinations for the diploma, were admitted Members of the College at a meeting of the Court of Examiners on the 20th inst., viz. :—

Baker, Benjamin Russell, Andover, Hants, student of St. Thomas's Hospital.
Bennett, Henry Selfe, B.A. Cantab., Finsbury-square, of St. Thomas's Hospital.
Bubb, Benjamin, Cheltenham, of King's College.
Campbell, William Macfie, M.D. Edin., Liverpool, of the Edinburgh School.
Crowther, Arthur Bingham, L.S.A., Hobart Town, of Guy's Hospital.
Duran, Charles, Costa Rica, of Guy's Hospital.
Edwards, Octavius, Hereford, of Guy's Hospital.
Harris, Vincent Dormer, Bristol, of St. Bartholomew's Hospital.
Hartley, Robert, L.R.C.P. Edin., Lytham, Lancashire, of the Manchester School.
Hebb, Richard Grainger, Newton Valence, Hants, of King's College.
Ilott, Herbert James, Bromley, of St. Bartholomew's Hospital.
Johnson, John James, L.R.C.P. Lond., Newcastle-on-Tyne, of the Newcastle School.
Lloyd, John Daniel, L.R.C.P. Edin., Hillsey, near Wotton-under-Edge, of the Bristol School.
Müller, Augustus, L.S.A., Amoy, China, of St. Mary's Hospital.
Paley, William Edmund, Peterborough, of Guy's Hospital.
Pike, Joseph Balm, Leicester, of St. Thomas's Hospital.
Seaton, John Joseph Joscelyn, Sunbury, of King's College.
Smith, William, L.R.C.P. Edin., Ashton-under-Lyne, of the Manchester School.
Stevens, Alfred Felix, Stoke Newington-green, of St. Bartholomew's Hospital.
Stewart, Robert Walter, L.R.C.P. Edin., Stoke, Devonport, of St. Bartholomew's Hospital.
Sutcliffe, Eli Crossley Titterington, Staleybridge, of University College.
Talbot, Joseph Bindley, Brierley-hill, of the Birmingham School.
Thomas, Herbert Henry, Hebdenbridge, of University College.
Thompson, Thomas William, Tavistock-square, of University College.
Ward, Lloyd Brereton, L.R.C.P. Edin., Abbey-place, St. John's-wood, of St. George's Hospital.
Wilkins, James Sutherland, L.R.C.P. Lond., Masulipatam, India, of Guy's Hospital.

The following passed on the 21st inst., viz. :—

Andrew, George, Plympton, Devon, student of St. Bartholomew's Hospital.
Harrison, Charles Edward, Upper Norwood, of St. Bartholomew's Hospital.
Hooper, Alfred, L.S.A., Burton-on-Trent, of Guy's Hospital.
Lucas, Henry Owen, Highgate, of St. Bartholomew's Hospital.
Maclean, Thomas Edwin, Notting-hill, of University College.
Medcalf, Ernest Sexton, L.S.A., Ware, Herts, of Guy's Hospital.
Parrott, Joseph, Camberwell-road, of St. Thomas's Hospital.
Saberton, Frederic William, L.S.A., Ely, Cambridgeshire, of Guy's Hospital.
Sawtell, Tom Henry, Adelaide, South Australia, of St. Bartholomew's Hospital.
Schäfer, Edward Albert, Highgate, of University College.

Fourteen candidates out of the forty-eight examined, having failed to acquit themselves to the satisfaction of the Court of Examiners, were referred to their professional studies for six months.

Apothecaries' Hall.—The following gentleman passed his examination in the Science and Practice of Medicine, and received a Certificate to practise, on Thursday January 15, 1874 :—

Elliott, Frederick Hawes, Andover, Hants.

The following gentleman also on the same day passed his primary professional examination :—

Davey, William Thomas, St. Bartholomew's Hospital.

APPOINTMENTS.

*** The Editor will thank gentlemen to forward to the Publishing-office, as early as possible, information as to any new Appointments that take place.

Chambers, E., M.B., Ch.M. Aberd., M.R.C.S. Eng.—Visiting-Surgeon to the Chester General Infirmary, *vice* Wm. J. Fleetwood, appointed House-Surgeon.

Fleetwood, Wm. J., L.K. & Q.C.P.I., L.R.C.S., etc.—House-Surgeon to the Chester General Infirmary, *vice* W. Haining, M.D., L.R.C.S. Edin., resigned.

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NAVAL AND MILITARY APPOINTMENTS.

WAR OFFICE.—MEDICAL DEPARTMENT.—Surgeon John Joseph Crean retires upon temporary half-pay; Surgeon-Major Robert Fleetwood Andrews is placed upon temporary half-pay; Surgeon Alfred Lewer to Surgeon-Major, *vice* Colin Matheson Milne Miller, M.D., retired upon temporary half-pay; Surgeon Thomas Hession to be Surgeon-Major, *vice* Augustus Frederick Turner, retired upon temporary half-pay; Surgeon Edwin Wilks to be Surgeon-Major, *vice* William Johnstone Fyffe, M.D., who retires upon half-pay; Staff-Surgeon Merrick Lloyd Burrows, M.D., from half-pay to be Surgeon-Major; Surgeon Hugh Kennedy Maclachlan resigns his commission.

BIRTHS.

BOGGS.—On January 20, at Paris, the wife of Alex. Boggs, M.D., late of H.M. Indian Army, of a daughter.

BROOKES.—On January 13, at Kennington-road, S.E., the wife of Charles Brookes, M.R.C.S., of Westminster-bridge-road, of a son.

COLEMAN.—On January 17, at 3, Plumstead-road, Woolwich, the wife of W. W. Coleman, M.R.C.S. Eng., of a son.

LOVETT.—On January 17, at 13, Great Russell-street, Bedford-square, the wife of Samuel R. Lovett, L.R.C.P. Edin., L.M., L.S.A., of a daughter.

WILLETT.—On January 16, at 36, Wimpole-street, W., the wife of Alfred Willett, F.R.C.S. Eng., of a daughter.

MARRIAGES.

FLEMING—PULLEYNE.—On January 15, at the Oratory, Brompton, C. Fleming, L.K.Q.C.P.I., L.M., L.R.C.S.I., Harthill, Yorkshire, eldest son of John Fleming, Esq., Nerano House, Dalkey, to Maud Mary, only daughter of Captain Pulleyne, 18th Hussars, The Laura, Old Brompton, London.

HUME—SUTCLIFFE.—On January 13, at the Moravian Church, Bedford, John Collin Hume, L.R.C.P. Edin., L.F.P.S. Glasg., of Oldham, Lancashire, to Grace Elizabeth, eldest daughter of the Rev. Charles Edward Sutcliffe, St. Peter's, Bedford.

HUGHES—HARDES.—On January 15, at St. Marylebone Church, London, David Hughes, F.R.C.S., eldest son of the late Archdeacon Hughes, of Carmarthen, to Adelaide, only daughter of the late William Hardes, Esq., of Barming.

JAGO—DINNEN.—On January 14, at St. Cybus Church, Holyhead, Thomas Jago, M.R.C.S. Eng., Barnsbury, London, to Elizabeth Isabella, elder daughter of W. A. Dinnen, Esq., R.N., Chief Inspector of Machinery Afloat, late of Manor-road, New Cross, S.E.

DEATHS.

BEAMAN, GEORGE, M.D., F.R.C.S. Eng., L.S.A., at 3, Caversham-road, N.W., on January 15, in his 78rd year.

GIBSON, CHARLES MENDS, F.R.C.S. Eng., L.S.A., of Norwich, at Amélie-les-Bains, Pyrénées Orientales, of acute hæmorrhage from the lungs, on January 13, aged 65.

KINSEY, WILLIAM EDWARD, Bengal Civil Service, younger son of the late Deputy Inspector-General R. B. Kinsey, Bengal Medical Service, at Alexandria, aged 30.

LEWIS, THOMAS, M.D., late Surgeon 1st (King's) Dragoon Guards, at his residence, 7, Sumner-place, Onslow-square, on January 15.

VACANCIES.

In the following list the nature of the office vacant, the qualifications required in the Candidate, the person to whom application should be made, and the day of election (as far as known) are stated in succession.

BOROUGH OF BOLTON.—Medical Officer of Health. Candidates must be duly qualified. Applications, with testimonials, to the Town Clerk, on or before January 27.

CAMBRIDGE UNION.—Medical Officer. Candidates must be duly qualified. Applications, with testimonials, to Mr. J. Deacon Fetch, Clerk, St. Andrew-street, Cambridge, on or before January 27.

COTON-HILL INSTITUTION FOR THE INSANE.—Assistant Medical Officer. Candidates must be duly qualified. Applications, with testimonials, to Dr. Hewson, Coton-hill, Stafford.

DERBYSHIRE GENERAL INFIRMARY.—House-Surgeon. Candidates must be M.R.C.S. Applications, with testimonials, to the Secretary, on or before February 7.

GENERAL HOSPITAL, NOTTINGHAM.—Physician. Candidates must be duly qualified. Applications, with testimonials, to the Chairman of the Qualification Committee, on or before March 10.

HUDDERSFIELD INFIRMARY.—Physician. Particulars from the Honorary Secretary or House-Surgeon.

KING AND QUEEN'S COLLEGE OF PHYSICIANS, DUBLIN.—King's Professorship of Medicine. Candidates must be duly qualified. Applications, with testimonials, to Dr. G. Magee Finny, Registrar of the College of Physicians, and to the Rev. Dr. Carson, Registrar of Trinity College, Dublin, on or before February 1.

LEITH HOSPITAL.—Assistant-Surgeon. Applications, with testimonials, to Mr. Mann, 42, Bernard-street, Leith.

ROYAL HANTS COUNTY HOSPITAL, WINCHESTER.—House-Surgeon and Secretary. Candidates must be duly qualified. Applications, with testimonials, to the Secretary, on or before January 28.

ST. MARYLEBONE GENERAL DISPENSARY, 77, WELBECK-STREET, CAVENDISH-SQUARE.—Physician and Surgeon. Candidates must be duly qualified. Personal applications on February 4 at 11, a.m.

WARRINGTON DISPENSARY, AND HATTON'S CHARITY HOSPITAL.—Resident Surgeon-Apothecary. Candidates must be duly qualified. Applications, with testimonials, to Joseph Davies, Esq., Hon. Sec., on or before February 2.

WESTMINSTER HOSPITAL.—Assistant-Surgeon. Candidates must be F.R.C.S. Eng. Each candidate must attend (with his testimonials) the House Committee on February 10.

UNION AND PAROCHIAL MEDICAL SERVICE.

*** The area of each district is stated in acres. The population is computed according to the census of 1871.

RESIGNATIONS.

Calne Union.—Mr. Charles A. Brigstocke has resigned the Union and Workhouse; area 27,689; population 8916; salary £200 per annum.

Caxton and Arrington Union.—Mr. Eustace J. Carver has resigned the Wimpole District; area 5755; population 1525; salary £41 4s. per annum.

Ecclesall Bierlow Union.—Mr. Charles M. Meller has resigned the Second District; area 562; population 22,969; salary £57 10s. per annum.

Stratford-on-Avon Union.—Mr. Wm. Louis Le Sage has resigned the Workhouse; salary £40 per annum.

APPOINTMENTS.

Drayton Union.—Edward T. Thompson, L.R.C.S. Ire., L.K. & Q.C.P.I., to the Ashley District.

Droitwich Union.—Henry Curtler, M.R.C.S. Eng., L.S.A., to the Droitwich District.

Sudbury Union.—John B. Bromley, M.R.C.S. Eng., L.S.A., to the Gestingthorpe District.

Woolwich Union.—Mr. George Wm. Wigner as Analyst for the Town and Parish of Woolwich.

WRITTEN EXAMINATIONS.—The following were the questions on Surgical Anatomy and the Principles and Practice of Surgery submitted to the candidates for the diploma of Membership of the Royal College of Surgeons on the 16th inst., viz.:—1. Describe the method of reparation in simple fracture of bone, in laceration of muscle, in division of tendon, and in sloughing of skin. 2. Mention all the symptoms of concussion of the brain, and give an explanation of them. 3. Describe the diseases of the skin usually grouped under the term "vesicular," and give their appropriate treatment. 4. Describe the varieties of primary venereal sores commonly met with, their probable consequences, and proper treatment. 5. Describe the affections known as phymosis and paraphymosis; explain their causes and possible consequences, and state their treatment. 6. What is staphyloma? Mention its causes, pathology, and treatment. The following were the questions on the Principles and Practice of Medicine on the 17th inst., viz.:—1. A person is suddenly seized with severe pain in the abdomen, sickness, and vomiting, followed by prostration of strength; what are the various causes upon which the symptoms may depend? how would you distinguish them? and what treatment would you employ in such cases? 2. What is meant by hemiplegia, paraplegia, and locomotor ataxy? Describe the symptoms of each disease, and the morbid conditions upon which they depend. 3. Mention the different remedies which may be used to check diarrhœa, and to allay sickness and vomiting, giving the doses and forms in which they should be employed. Write a prescription for the administration of such a remedy.

DR. J. BRAXTON HICKS has lately been elected an honorary member of the Obstetrical Society of Philadelphia.

A CONCERT was given at the Army Medical School, Netley, on the 8th inst., in aid of the relief fund for the wives and families of invalid soldiers. Nearly 200 civilians attended.

THE LATE MESSRS. TURNER AND WORMALD.—At the last meeting of the Council of the Royal College of Surgeons, letters of condolence were sent to the respective families of the above-mentioned gentlemen, expressing the great sympathy of their late colleagues for the loss sustained by them—a regret in which many of our readers will participate.

DR. WHITMORE, Medical Officer of Health for St. Marylebone, in his report to the Vestry for the month of December, states that during the four weeks which ended on December 27, 1873, 359 deaths were registered, the deaths exceeding the births by twelve—a most unusual occurrence. This very high rate of mortality was attributable to two causes: first to the prevailing epidemic of measles, and next to the low temperature and fog which occurred during the three days in the second week of the month. On the 9th and 10th the temperature at night fell to 19°, and on the 11th to 25°; and of the sixty and upwards fatal cases of bronchitis and pneumonia which were registered subsequent to those dates, a very large proportion may be ascribed to the life-destroying effects of the dense fog and cold weather combined. The total deaths from bronchitis and pneumonia during the month amounted to ninety-eight, a number larger than any that has been recorded in a similar period of time since 1870. The total number of deaths from measles during the month was fifty; and when it is stated that the average monthly deaths for the last seventeen years from this disease has not exceeded seven, some correct idea may be formed of its present fatality.

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KING AND QUEEN'S COLLEGE OF PHYSICIANS, IRELAND.—We learn that a committee [of the College] has been appointed to report to the College on the qualifications and examination to be adopted in the case of candidate midwives, and on the form of diploma to be granted them if successful.

PICK ON THE ACTION OF NITRITE OF AMYL.—Herr Robert Pick has lately made some interesting observations on the above substance in Professor Binz's laboratory at Bonn, and has communicated his chief results to the *Centralblatt* of December 6, 1873. He finds that the dilatation of blood-vessels caused by its inhalation diminishes with their distance from the head, and becomes imperceptible in those of the leg below the knee. Nitrite of amyl, even in large doses, never produces pain in the head or loss of consciousness, and its effects soon pass off without bad consequences. Pick denies any simultaneous dilatation of the retinal vessels visible by the ophthalmoscope, such as has been described by Dr. Crichton Browne in the "West Riding Reports" for 1871 (pp. 95 to 98), and by Mr. Aldridge, of Wakefield, in his researches on nitrite of amyl, as quoted by Dr. Allbutt in his work on the Ophthalmoscope (p. 325). A curious phenomenon is observed if the nitrite be fully inhaled and then the patient's eye fixed on some definite point on a white screen. An intensely yellow circle appears, surrounded by a bluish-violet rim, on the outside of which are wavy lines. Its size is about four or five centimetres if the person stand at sixty centimetres distance from the screen. This circle is probably only a projection of the yellow spot of the retina, and the violet rim its complementary colour, while the wavy lines are most likely blood-vessels. Nitrite of amyl, in the state of vapour, produces a clearly demonstrable relaxation of the muscular substance of the heart, but there is no increase in the frequency of the respirations nor of the capacity of the lungs, as shown in the latter case by the spirometer. It is probably a direct poison to the muscles, producing rapid and direct paralysis of them, as shown by the following experiment, in which the motor nerves were paralysed by curara, while the muscles themselves reacted well to electrical irritation. The sartorii and gastrocnemii muscles of a curarised frog were dissected out, and the former covered with a bell-glass containing air alone, the latter with one filled with nitrite of amyl vapour. In about ten minutes the electrical examination showed that the sartorii contracted almost as strongly as before, while the gastrocnemii remained absolutely motionless. Pick agrees with Dr. Brunton that the dilatation of the bloodvessels produced by the nitrite depends, not on a central nervous influence, but on its direct relaxing action on their muscular coats. He has collected evidence showing the value of nitrite of amyl in hemicrania, and has found benefit from its use in a case of cardiac neuralgia and in several cases of epilepsy and asthma, though only palliative in the latter. In a case of traumatic tetanus it produced a transient relaxation of the muscles just like curara.

NOTES, QUERIES, AND REPLIES.

He that questioneth much shall learn much.—Bacon.

J. Todd, Newtownstewart, Ireland.—We know no such work.

Sabbatarian.—No. 1. We know of none such. No. 2. Do not Mahomedans observe Friday as a day of rest?

THE SUNDERLAND INFIRMARY.

TO THE EDITOR OF THE MEDICAL TIMES AND GAZETTE.

SIR,—The Medical Board of the Sunderland Infirmary have issued a circular, a copy of which is enclosed, asking for information on the four points named in it from the larger provincial hospitals.

It is the object of the Board to induce the governors to (1) do away with tickets in the admission of indoor patients; (2) to place the election of honorary medical officers in the hands of the (or a) committee; and (3) to enact that those holding office upon the staff of our Infirmary should be unconnected with club, benefit society, or parochial appointment.

If you, or any of your readers, will kindly afford us information of where these, or any of these, changes have been successfully carried out, we shall esteem it a favour. I am, &c.,

24, Villiers-street, Bishopwearmouth, Jan. 20. G. B. MORGAN.

"Sunderland Infirmary, January 14, 1874.

"Sir,—I shall esteem it a favour if you will be so kind as to answer the queries printed on the other side, and return this paper to me.

"I am, Sir, respectfully yours. JOHN KITTS, Secretary.

"To the Secretary, Infirmary or General Hospital."

"1. How are indoor patients admitted? On subscriber's letter, or free?

"2. How are the honorary medical officers elected? By the votes of all the governors, or by a committee of election, or by ordinary committee of management?

"3. Is there any rule whereby the honorary medical officers are debarred from holding club, benefit society, or parochial appointment?

"4. What has been found in your hospital the best method of treating the *floors* of wards, corridors, and staircases (whether painted, varnished, stained, oiled, covered with cloth, or left bare and scoured)?"

HOSPITAL APPOINTMENTS.

TO THE EDITOR OF THE MEDICAL TIMES AND GAZETTE.

SIR,—Will you kindly favour me in your next impression with an answer to the following question? *A* is a paid medical officer to a hospital in London, and wishes to resign his office; *B* wishes to obtain the vacant post, and offers money for A's good will. Would *A* be justified in accepting it? I am, &c., Q. X. Z.

*** We sincerely hope that the system above indicated will never come into force in London. In Dublin, where it prevails to some extent, the result has been in a certain sense disastrous. The fact that it is openly practised in that city by honourable men shows that there is nothing immoral in the practice, but we earnestly desire to see nothing of it here.

COMPETITIVE EXAMINATIONS AND "INDIVIDUALISM."

TO THE EDITOR OF THE MEDICAL TIMES AND GAZETTE.

SIR,—I hope you will permit an old subscriber to express his heartfelt approbation of the essay on "Individualism," by Dr. Curnow, of King's College, part of which appears in the *Medical Times and Gazette* for November 22, 1873. One drop of water does little; yet, as the hardest stone may be hollowed out by a repeated current, so it is to be hoped that the present infatuation in favour of competitive examinations may give way before the influence of common sense uttered by such men as Dr. Curnow. He has very ably shown the stiffening, formalising effects of the course of cramming required by the successful competitor who reads books, not for their intrinsic worth, but "because it will pay" in the examination, and whose time of most vigorous intellectual life is so spent in "getting up" other people's "views" as to leave him little time for original observation. What I venture to point out further is the iniquity of the scheme for confining the benefits of endowed schools to children who are successful in competition. Our wise ancestors made education at the old grammar schools and cathedral schools free to all comers who desired education. The schools were free as the light of heaven—"Let him that is athirst come." No inhabitant of the district in which they were situated, who wished a classical education, was denied it for his sons. But now this privilege is to be swept away, and entrance to the old free grammar schools is to be made a "reward of merit." What notion can be entertained by a rational being of "merit" in a boy of eight years? Suppose such a boy's father was a military or naval medical officer of "merit," and the child, fatherless, not precocious, and not lucky enough to get "crammed" for competition, and so left out in the cold? Is this consistent with public policy, or with the intentions of the founders of the ancient endowed schools? I need say nothing of the injurious effects of cramming in precocious young children.

"Wo to impatient hands, that ere its prime
Force the bud open, mar the unready flower."

So said Keble, the wisest and most sympathetic of modern poets.

December 17, 1873. I am, &c., PEREGRINUS.

CHIEF JUSTICE COCKBURN ON SKILLED ASSESSORS.

TO THE EDITOR OF THE MEDICAL TIMES AND GAZETTE.

SIR,—In the process of tearing up old newspapers, my eye falls on a dictum of Chief Justice Cockburn in the course of the Tichborne trial, which shows that even the ablest and most careful of judges may sometimes give utterance to opinions which cannot meet with general acceptance. The question was as to the size of the "last" from which the "Claimant's" boots were made. A "juror who is in the trade (says the *Mail* of November 3, 1873) desired to have the foot-rule and last handed to him, and said he could explain the matter. Upon which the Lord Chief Justice observed that this showed how useful an institution the jury was, as it generally happened that there was someone on the jury who had practical acquaintance with the subject." This is giving the office of juryman far higher scope and elevation than it is commonly considered to possess. It makes them something more than judges of the fact according to the evidence; it makes them partly givers of evidence (as when a juryman describes the nature of a "last") and partly skilled assessors, whose place should be rather on the bench than in the jury box. In such a trial as that of the "Claimant" for perjury, if it were "useful" to have someone on the jury who had "practical acquaintance with the subject" of the evidence tendered, there surely should have been persons acquainted with the topography of Paris, Stonyhurst, Ireland, South America, and Australia; with the trade of a butcher; with the variations and resemblances of handwriting; with the practice of confession and First Communion; with the pranks and practical jokes of military life; with the power of the human mind to retain or forget languages and incidents, to keep or change its character and habits; someone competent to judge of the nature and date of scars, and of their tendency to become obliterated; and with a thousand other qualifications. But how are these to be secured? Suppose that instead of a shoemaker there had been a baker as juryman; would he have elucidated the structure of a "last"? The functions which the Lord Chief Justice Cockburn assigns to a casual member of a jury should either be performed by a sworn skilled witness or by an assessor—a man who is as competent as a sworn witness to unravel technicalities, and yet who, being consulted by the Court, and not called by plaintiff or defendant, would not be a mere partisan. I am, &c., ALPHA.

The Plymouth Dockyard Disease.—This may be read of in a paper by Mr. Tripe, in the *London Medical and Physical Journal* for 1825; also in Dr. James Johnson's *Medico-Chirurgical Review* for January, 1826; also in the book on "Irritative Fever, commonly called Plymouth Dockyard Disease, by John Butter, M.D., F.R.S., 1825; with a detailed account of the fatal cases, by Mr. Dryden." The disease was "diffuse cellular inflammation" following the slightest injury. Amongst the casualties was the death of the much-lamented Dr. Bele, who died of pyremia following a prick of the finger, inflicted whilst engaged in examining one of the dead bodies. There were fifteen cases, including Dr. Bele's, between August 1 and September 19, 1824. The history of all was much alike. The disease began with an injury—often slight—or a surgical operation. This was followed in from twenty-four hours to seven days

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by shivering and fever, and then by local affections, varying in situation. Sometimes inflammation, swelling, pain, and abscess began at the wounded part and extended with a series of sloughy abscesses in the areolar tissue up to the thumb. Sometimes the disease seemed to extend from the wound along the line of the lymphatics; but in other cases there was little or no inflammation in or about the injured part, but the patient perished of inflammation of the peritoneum or abscess around one kidney. Twelve of the fifteen cases proved fatal. There are two points which give to Dr. Butter's book an historical value. One is, his conception that the disease was not a mere "inflammation," a local disease, or disease of a tissue; hence his use of the term irritative "fever." The name pyæmia was not then invented, and the term blood-poisoning does not occur. The other is, the evidence it gives of the break-down of "antiphlogistic" treatment. Out of fifteen patients, thirteen were bled, of whom twelve died. Of the two not bled, one recovered and one died. Copious bleeding seemed to give comfort, but the patient went on from bad to worse in spite of the delusive "relief" it gave. [Anyone who desires to realise the improved position of medicine in this generation should imitate our correspondent, and occasionally read an out-of-date book.]

COMMUNICATIONS have been received from—

Mr. R. Quain, London; Dr. Handfield Jones, London; Dr. Peyton Blakiston, London; Mr. Henry Arnott, London; Dr. Henry Thompson, London; Mr. Christopher Heath, London; Dr. Gavin Milroy, Richmond; Mr. J. Chatto, London; Mr. Postgate, Birmingham; Dr. Ord, London; Dr. J. W. Allan, Fort William; Mr. G. Brown, London; Dr. Vinen, London; Mr. H. W. Saunders, M.B.; Professor Spence, Edinburgh; Dr. Fleetwood, Chester.

BOOKS RECEIVED—

Miller's Elements of Chemistry, Part 2—Inorganic Chemistry—Burness and Mavor on the Therapeutic Action of Drugs—Sieveking's Medical Adviser in Life Assurance—Cauty on Diseases of the Skin.

PERIODICALS AND NEWSPAPERS RECEIVED—

Philadelphia Medical Times—Pharmaceutical Journal—Brighton Guardian—Le Progrès Medical—La Tribune Médicale—La France Médical—Gazette Médicale—Le Mouvement Médical—Gazette Hebdomadaire—Medical Press and Circular—London Medical Record.

APPOINTMENTS FOR THE WEEK.

January 24. Saturday (this day).

Operations at St. Bartholomew's, 1½ p.m.; King's College, 2 p.m.; Charing-cross, 2 p.m.; Royal Free, 9 a.m. and 2 p.m.; Hospital for Women, 9½ a.m.; Royal London Ophthalmic, 11 a.m.; Royal Westminster Ophthalmic, 1½ p.m.; St. Thomas's, 9½ a.m.

Royal Institution, 3 p.m. Prof. G. Croom Robertson, "On Kant's Critical Philosophy."

26. Monday.

Operations at the Metropolitan Free, 2 p.m.; St. Mark's Hospital for Diseases of the Rectum, 2 p.m.; St. Peter's Hospital for Stone, 3 p.m.; Royal London Ophthalmic, 11 a.m.; Royal Westminster Ophthalmic, 1½ p.m.

Medical Society of London, 8 p.m. Dr. Hughlings-Jackson will exhibit a Drawing of Optic Neuritis with good sight. Mr. Spencer Watson—Cases of Neuro-Paralytic Keratitis. Mr. Sewill—Case of Cleft Palate. Mr. Pennefather will show Aural Polypi. Mr. Bloxam will also bring forward a case.

27. Tuesday.

Operations at Guy's, 1½ p.m.; Westminster, 2 p.m.; National Orthopædic, Great Portland-street, 2 p.m.; Royal London Ophthalmic, 11 a.m.; Royal Westminster Ophthalmic, 1½ p.m.; West London, 3 p.m.

Anthropological Institute, 8 p.m. Anniversary Meeting.

Royal Institution, 3 p.m. Prof. Rutherford, "On Respiration."

Royal Medical and Chirurgical Society, 8½ p.m. Mr. Henry Lee, "Case of Primary Excision of the Ankle Joint." Drs. Hennessey and MacLaren, "On Cholera (in India)." Mr. John Wood will show two Cases of Ectopia Vesicæ. Dr. John Harley will again bring forward his patients treated by Conium for Disorders of Muscular Movements.

28. Wednesday.

Operations at University College, 2 p.m.; St. Mary's, 1½ p.m.; Middlesex, 1 p.m.; London, 2 p.m.; St. Bartholomew's, 1½ p.m.; Great Northern, 2 p.m.; St. Thomas's, 1½ p.m.; Samaritan, 2½ p.m.; King's College (by Mr. Wood), 2 p.m.; Royal London Ophthalmic, 11 a.m.; Royal Westminster Ophthalmic, 1½ p.m.

29. Thursday.

Operations at St. George's, 1 p.m.; Central London Ophthalmic, 1 p.m.; Royal Orthopædic, 2 p.m.; University College, 2 p.m.; Royal London Ophthalmic, 11 a.m.; Royal Westminster Ophthalmic, 1½ p.m.

Royal Institution, 3 p.m. Prof. P. M. Duncan, "On Palæontology with reference to Extinct Animals and the Physical Geography of their time."

30. Friday.

Operations at Central London Ophthalmic, 2 p.m.; Royal London Ophthalmic, 11 a.m.; South London Ophthalmic, 2 p.m.; Royal Westminster Ophthalmic, 1½ p.m.; St. George's (ophthalmic operations), 1½ p.m.

Royal Institution (Weekly Evening Meeting, 8 p.m.), 9 p.m. Sir Julius Benedict, "Weber and his Times."

VITAL STATISTICS OF LONDON.

Week ending Saturday, January 17.

BIRTHS.

Births of Boys, 1261; Girls, 1197; Total, 2458.
Average of 10 corresponding years 1864-73, 2232·3.

DEATHS.

	Males.	Females.	Total.
Deaths during the week	777	776	1553
Average of the ten years 1864-73	836·8	858·3	1695·1
Average corrected to increased population	...	...	1865
Deaths of people aged 80 and upwards	...	...	75

DEATHS IN SUB-DISTRICTS FROM EPIDEMICS.

	Population, 1871.	Small-pox.	Measles.	Scarlet Fever.	Diphtheria.	Whooping-cough.	Typhus.	Enteric (or Typhoid) Fever.	Simple continued Fever.	Diarrhœa.
West	561359	1	10	...	1	5	1	5	...	...
North	751729	4	29	3	4	8	1	1	1	3
Central ...	334369	...	15	2	...	2	1	3	...	2
East	639111	1	20	8	...	8	...	1	...	4
South	967692	...	13	3	2	12	4	6	3	3
Total	3254260	6	87	16	7	35	7	16	4	12

METEOROLOGY.

From Observations at the Greenwich Observatory.

Mean height of barometer	29·697 in.
Mean temperature	41·6°
Highest point of thermometer	52·3°
Lowest point of thermometer	31·0°
Mean dew-point temperature	38·3°
General direction of wind	W.S.W.
Whole amount of rain in the week	0·10 in.

BIRTHS and DEATHS Registered and METEOROLOGY during the Week ending Saturday, January 17, 1874, in the following large Towns:—

Boroughs, etc. (Municipal boundaries for all except London.)	Estimated Population to middle of the year 1874.*	Persons to an Acre. (1874.)	Births Registered during the week ending Jan. 17.	Deaths Registered during the week ending Jan. 17.	Temperature of Air (Fahr.) Highest during the Week.	Lowest during the Week.	Weekly Mean of Mean Daily Values.	Temp. of Air (Cent.) Weekly Mean of Mean Daily Values.	Rain Fall. In Inches.	In Centimetres.
London	3400701	45·1	2458	1553	52·3	31·0	41·6	5·33	0·10	0·25
Portsmouth ...	120436	26·8	73	52	53·4	32·0	43·8	6·55	0·14	0·36
Norwich	82257	11·0	51	34	50·0	28·0	38·8	3·77	0·14	0·36
Bristol	192889	43·3	138	88	52·1	33·3	41·9	5·50	0·62	1·57
Wolverhampton ...	70896	20·9	53	31	49·9	26·1	41·0	5·00	0·50	1·27
Birmingham ...	360892	43·0	265	235	51·0	29·5	42·1	5·62	0·44	1·12
Leicester	106202	33·2	90	47	50·7	28·7	40·4	4·66	0·36	0·91
Nottingham ...	90894	45·5	57	48	51·1	25·2	40·8	4·88	0·19	0·48
Liverpool	510640	98·0	367	310	53·2	33·8	43·9	6·61	0·79	2·01
Manchester ...	355339	82·8	245	187	52·5	30·0	41·4	5·22	1·13	2·87
Salford	133068	25·7	114	81	53·7	29·0	42·2	5·67	1·06	2·69
Oldham	86281	18·5	67	55	50·0	...	...	...	0·85	2·16
Bradford	163056	22·6	99	82	53·0	33·8	43·0	6·11	0·10	0·25
Leeds	278798	12·9	170	142	53·0	33·0	43·4	6·33	0·08	0·20
Sheffield	261029	13·3	198	109	51·0	31·5	42·3	5·73	0·51	1·30
Hull	130996	36·0	115	61	44·3	35·7	39·8	4·33	0·18	0·46
Sunderland ...	104378	31·6	74	60	...	...	...	...	...	...
Newcastle-on-Tyne	135437	25·2	95	68	49·0	31·0	41·2	5·11	0·00	0·00
Edinburgh	211691	47·8	120	100	...	...	...	...	...	...
Glasgow	508109	100·4	372	284	48·9	31·3	41·2	5·11	1·51	3·84
Dublin	314666	31·3	185	146	52·4	29·1	39·6	4·22	0·81	2·06
Total of 21 Towns in United Kingdm	7618655	36·6	5406	3773	53·7	25·2	41·6	5·33	0·50	1·27

At the Royal Observatory, Greenwich, the mean reading of the barometer last week was 29·70 in. The highest was 29·98 in. on Tuesday morning, and the lowest 29·17 in. on Friday afternoon.

* The figures in this column for the English towns are the numbers enumerated in April, 1871, as finally revised at the Census Office, and raised to the middle of 1874 by the addition of three years and a quarter's increase, calculated on the rate which prevailed between 1861 and 1871. The population of Dublin is taken as stationary at the revised number enumerated in April, 1871.

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ORIGINAL LECTURES.

AN ADDRESS
ON PYÆMIA IN PRIVATE PRACTICE.

DELIVERED BEFORE THE CLINICAL SOCIETY OF LONDON.

By PRESCOTT HEWETT, F.R.C.S,
President of the Society; Senior Surgeon to St. George's Hospital, etc.

GENTLEMEN,—In taking the chair this evening, I cannot refrain from thanking you for the honour which you have been pleased again to confer on me. I confess that I had my misgivings as to my fitness when I took the chair last year; but, whatever may have been my shortcomings, thanks to the Council, and more especially to the unwearied zeal of our secretaries and of our treasurer, I am happy in being able to congratulate you upon the still increasing prosperity of the Clinical Society.

With these few but heartfelt words, I pass on to the more immediate business of this evening; and, in doing so, I shall follow out the course which I ventured to enter upon last year, and again give you some gleanings from private practice, the clinical results of which may be made valuable, and all the more so when contrasted with those of hospital practice; and the subject to which I shall direct your attention is that of pyæmia, a subject than which none is more important, and the consideration of which, in some of its bearings, has of late years been largely occupying the attention of our profession. The few observations which I have now to offer you on this subject will be confined to cases occurring in private practice.

A young lady, aged 15, stoutish, but of good general health, came under my care for a congenital cystic tumour at the root of the neck. When an infant, an attempt had been made to remove this tumour, but a bit of it was left, as it was closely adherent to the large vessels. For several years after this operation nothing was noticed in relation to this tumour, but for two or three years previous to seeing my patient it had, without any apparent cause, taken to growing; and when I was consulted it occupied the whole of the lower part of the left side of the neck, and projected beyond the clavicle. At a consultation with the late Mr. Keate, who had performed the operation, it was determined that single-thread setons should now be used, and two of these were introduced into the tumour. In a few days intense inflammation set in, and suppuration followed; a quantity of matter was let out, the swelling subsided, and for some days everything appeared to be going on satisfactorily; then came rigors and sweating, but without any increase in the local trouble. After a while it became evident that the patient was suffering from pyæmia, the mischief being in the left lung, and for several days the condition was most perilous; but one afternoon, after a violent fit of coughing, a large quantity of offensive matter was suddenly brought up, after which the more dangerous symptoms gradually subsided, and the patient ultimately recovered, and remained perfectly well, without any further trouble as to the tumour. In this case the patient's room—large, lofty, and well ventilated—was in a well-found house in one of the best streets in the town.

A hale old gentleman, close upon 80, who had long enjoyed most excellent health, had a small warty growth in the skin, just over the insertion of the tendo Achillis. This growth I removed, as it constantly became chafed, and troubled him much in walking. I made him lay up for a few days, and then, as the trifling wound was almost healed, he was allowed to go about a little, but, being of active habits, he one day took a longer walk than usual. This was followed by some slight inflammation of the wound, which, however, soon subsided, and he was on the eve of returning to his usual avocations, when rigors and sweatings made their appearance; then came an immense deep-seated abscess in the thigh, under the constant draining of which he ultimately sank.

I was called in consultation to a gentleman who was suffering from pyæmia, and who, a short time before, had had a small wart removed from the scrotum. He died. Details of this case are given further on, as I had had to attend this gentleman between three and four years previously, for a former attack of pyæmia.

Shortly after I had begun practice, I removed a small sebaceous tumour from the scalp of a lady. Everything went on well for the first few days; then came erysipelas of the scalp, which was subsequently followed by pyæmia and death. As far as one could judge, the conditions under which this trivial operation was performed were all favourable ones. The patient, middle-aged, and not stout, had some months previously undergone, without a bad symptom, a similar operation for the removal of three other sebaceous tumours. The bedroom, in a house in one of our most open and healthiest squares, was large and well ventilated; the weather was temperate, and the patient had remained in the house after the operation.

I operated upon a middle-aged lady, of good general health, for scirrhus of the breast, and for the first eight days everything looked promising; then came a rigor, followed by erysipelas around the wound, which, for a few days, went on slowly spreading; subsequently pyæmia made its appearance, and under this she gradually sank. The house in which the operation was performed was in one of the best streets in Pimlico. The bedroom was of good size, and well ventilated.

About a month afterwards, I operated upon another lady for scirrhus of the breast. Middle-aged and slim, she was of a sallow complexion, but in good general health. In this case, too, everything promised well for the first few days; then came a severe rigor and sickness; erysipelas soon made its appearance around the wound, from whence it gradually spread. Matters went on thus for a few days, then there was pyæmia, and in a few days more the patient was dead. In this case the operation was performed a few miles out of town. The bedroom, very large and well ventilated, was in a large well-built house with all modern appliances, and situated on a heath, on elevated ground, overlooking a wide expanse of country. As far as one could judge, no better or healthier situation could have been selected for an operation.

A lady, aged about 45, had a large sero-cystic tumour of the breast, some of the cysts of which occasionally suppurated, and were, under such circumstances, sometimes opened, and sometimes allowed to burst. Matters went on thus, as she would not hear of an operation, for between eight and nine years, the general health being as good as ever between the attacks. At this period a small cyst suppurated, and was allowed to burst, shortly after which erysipelas made its appearance around the edges of the little sore; then in a few days came rigors and sweating, with pain and great swelling of one of the knee-joints, and in a few days more this lady sank. At the time of the bursting of the cyst the patient was in her usual good health; her bedroom, fair sized and well ventilated, was in a house in a part of town generally considered to be one of the healthiest.

A young gentleman met with an accident to his shoulder, which led to inflammation of the joint, and for this he ultimately consulted me. After awhile the inflammation subsided, leaving the joint somewhat stiff. Then, persuaded by some friends, he went to a bone-setter, who pronounced that the bone was out and proceeded to put it back, as he said. The manipulations gave him great pain, and were followed by a recurrence of inflammation in the joint, for which he once more fell under my care. Suppuration of the joint ensued, and abscesses burst in various directions. Thus matters went on for a time, then came rigors, profuse sweatings, and a sodden appearance of the skin, with an anxious countenance, a running pulse, and great loss of flesh—the joint itself and the parts around it being meanwhile without any increase of mischief. Although tall and slim, this gentleman, up to the time of going to the bone-setter, had been in good health, and his family was healthy. He remained in this perilous condition for some time, looking as if secondary abscesses might occur at any moment. All this time he lived out of town, in a good country house, well cared for, and with plenty of fresh air. With the winter coming on, I sent him to the South of France, where after a residence of some months the more threatening symptoms gradually subsided, and when he returned to this country there was a decided improvement in his general health; but he was still far from well, and he remained more or less ailing for between two or three years, at the end of which period he was in fair health, with a permanently stiff joint, the abscesses about the shoulder having gradually dried up.

A middle-aged lady, in fair health, was supposed to be suffering from a sharp attack of sciatica on the right side, and for this she was ultimately sent to Wiesbaden; but after a time, finding that there was no improvement as to the pain, she returned home, and for some months went on creeping about, under the supposition all the while that she was suffering from sciatica. It was at this period that I was consulted on account of a swelling which had been gradually making its

appearance in the corresponding groin. The swelling proved to be an abscess which extended into the iliac fossa; and, on further investigation, the sacro-iliac joint was found to be the source of all the trouble. The abscess was allowed to burst, after which everything went on satisfactorily for some three weeks, when pyæmia made its appearance, and was followed by death in a week. This lady lived in a house on a hill, a few miles out of town. The house was in every respect well found, and her bedroom was airy and well ventilated.

I was telegraphed for a few miles out of town to a gentleman about 30 years of age, who was thought to be suffering from acute inflammation of both ankle-joints, and inflammation of the left lung. The case, on closer examination, proved to be one of pyæmia, in connexion with suppuration about the tonsils. In a few days the inflammation around the ankle-joints ended in the formation of matter, which was let out; after which this patient gradually recovered, and in a few weeks was restored to his usual good health. This case has already been alluded to as that of the gentleman who died of pyæmia after a trifling operation for the removal of a small wart from the scrotum. Between the two attacks of pyæmia in this case there was an interval of between three and four years. The first attack occurred in the country, and the second in town.

Recently, too, I have seen another gentleman, who, in connexion with suppuration about the tonsils, had symptoms of poisoned blood—rigors, profuse sweats, sodden skin,—under which he sank.

A young gentleman, aged 18, had a severe attack of typhoid fever, from which, however, he was making a good recovery, when, about a fortnight after all symptoms had disappeared, he again became feverish, and soon afterwards, without having met with any accident, he complained of pain along the shin-bone; swellings, which were very painful, formed along the surface of this bone; suppuration followed; the abscesses were opened, and went on discharging for some time, after which they gradually dried up without further mischief.

A lady's maid, aged about 30, had a severe attack of typhoid fever in the country. She recovered, and, being considered convalescent, came up to town, shortly after which smart feverish symptoms made their appearance, and were soon followed by swelling, affecting principally the knee, and extending some distance down the front and inner side of the leg. For awhile the symptoms were very severe, and ended in extensive suppuration about the upper part of the tibia; the matter was let out, and the patient gradually recovered; but the free use of the limb was not regained for a couple of years, and during this period several bits of bone came away.

A delicate, middle-aged lady had typhoid fever, which in due course passed away, leaving her weak and ailing, with now and then a recurrence of slight feverishness. After a time, this feverishness became more marked, and then she began to complain of very severe, deep-seated pains in various parts—first, at the upper and inner side of the tibia; then, at subsequent periods, over the lower part of the shoulder-blade, along the middle part of the spine, over the ribs, as well as over the crest of the haunch-bone. The pain in each of these parts was followed by swellings, and ultimately by abscesses, some of which were large and deep-seated. The abscesses were allowed to burst, and then, after the subsidence of the swelling, a probe was in each instance easily passed down to the periosteum, and in some parts the bone was found bare. The drain was great; hectic set in, and, after intense suffering, with occasional but limited mischief about the lungs, this lady sank.

A delicate-looking girl, aged 18, ran a needle into the fleshy part of the leg, where it broke off, but could be felt projecting slightly beyond the skin. It was pulled out, and she went about her work as usual; but in a few days the tiny wound festered, and in a few days more she was admitted into St. George's Hospital with symptoms of pyæmia, rigors, profuse sweatings, and swellings in various parts. Subsequently came evident signs of mischief about the lungs, and she sank within a month after the trifling injury. The needle, according to the patient's account, was quite clean; and she stated that she had never been laid up before, and had always had good health.

A young gentleman, aged 18, and apparently in good health, whilst bathing, ran a small splinter of wood into the fleshy part of the great toe. The splinter was immediately plucked out, and he went about as usual for several days, as if nothing had happened. Then the spot became painful, and a tiny abscess formed; it was attended to, but in a few days it was followed by urgent symptoms—severe rigors and most profuse sweatings; abscesses formed in the leg—one, a very large one, was deep-seated and in the calf; as they appeared they were dealt with, but for weeks the sweatings were so profuse that it was necessary to change the bed-linen several times in the twenty-four hours. Ultimately, however, the patient recovered, and he left his bed, a mere skeleton, between four and five months after the onset of the attack. His bedroom was fair-sized, well ventilated, with a large window looking over a wide expanse of country, the house, a recently built one, being on the outskirts of a town.

A gentleman, middle-aged, was tripped up in the street, and fell violently upon his elbow, the lower bones of which were thereby dislocated backwards, and partially thrust through the skin. The dislocation was easily reduced, and for a few days everything went on satisfactorily. Then came suppuration of the joint, followed in about a fortnight by severe rigors and profuse sweating, with swellings in various parts, and he died a month after the injury. His bedroom was a fair-sized one, well ventilated, and in a house in a good street, on the north side of, and not far from, Hyde-park.

A little boy, aged 6, met with a slight accident to his foot, which was followed by acute periostitis of the bones of the tarsus; this ended in suppuration; some of the joints were destroyed; and, at different periods, several abscesses formed in various parts—over the greater trochanter, over the crest of the ilium, and in the sacro-lumbar region, as well as over the bones of the skull in divers places. The suffering was intense, with low muttering delirium and rapid wasting, and to such an extent, that the child was soon reduced to a mere skeleton. Thus matters went on for some weeks, after which the abscesses gradually dried up; anchylosis of the bones of the tarsus took place, and when last seen, about a couple of years after the attack, he was a strong, active lad. All this occurred some miles out of town, in a good house in a healthy part of the country.

I was summoned a long way into the country to a young lady labouring under symptoms of a typhoid character, the origin of which was obscure. It appeared, however, that she had recently had measles, which had been followed by a slight discharge from the left ear. The recovery from the measles had been good, and she was going about, when rigors and sweating occurred, and were followed by fever, a dry brown tongue, and great prostration; and such were the more obvious symptoms when I first saw this young lady. On further inquiry, it was now found that the discharge from the ear had stopped; the intellect was quite clear; there was no pain in the head, no swelling in the neighbourhood of the ear, but there was pain upon pressure immediately below the mastoid process, and this tenderness existed also some way down the side of the neck, in the course of the internal jugular vein. From this it was inferred that inflammation had spread from the ear to the laternal sinus and internal jugular vein, and that, in all probability, secondary abscesses would follow. In a few days, a large abscess showed itself in the left sterno-clavicular articulation; then came pain and swelling about the left knee and ankle, and inflammation at the back and lower part of the left lung; and ultimately there was a large deep-seated abscess at the back of the left hip. The abscesses were opened in due course, but the mischief about the knee and ankle-joints and in the lung subsided; the patient gradually recovered, and in a few months was quite well again. The conditions under which this young lady was placed were unexceptionable—a large, airy, well-ventilated room looking on to an open country.

A young lady had, after her confinement, severe symptoms of low peritonitis, and was in great peril for some days; she recovered, however, and appeared to be going on well for a time, when the left shoulder became very painful, and for this I was asked to see her. Examination proved that the joint itself was not affected, but the parts around were much swollen and very painful, and especially so in front of the joint. Ultimately, a large abscess formed in this situation; it was opened, and the patient got well and went into the country, where, some weeks afterwards, deep-seated matter formed in the pelvic region; this burst into the vagina, and after a time she recovered completely, and has remained in good health ever since.

An officer in one of our light cavalry regiments, aged 18, came under my care for gonorrhœa. The symptoms were severe, and so he kept at home, and was treated with opiates and demulcents. About a fortnight after he had been under

treatment, symptoms of what appeared to be gonorrhœal rheumatism made their appearance. First, the left shoulder-joint was affected, but after a while the symptoms subsided; then, without any apparent cause, came rigors, profuse sweatings, and a dusky appearance of the skin, with great disturbance of the general health. These symptoms were soon followed by intense pain in the left sterno-clavicular articulation, which became much swollen, and in a few days presented evident signs of fluctuation. A large quantity of matter was let out. Inflammation and suppuration in and about the right hip-joint, accompanied by most intense pain, followed. In due course the matter was let out; and subsequently numerous small abscesses formed in the skin over various parts of the body. The patient was reduced to a mere skeleton, and, notwithstanding all possible care, the whole sacrum become exposed. The more intense symptoms about the hip having subsided, the patient was now turned over to the left side; but in a few days the skin over the great trochanter gave way, and the bone became exposed. He was then propped up so as to rest mainly on the ischiatic tuberosities; and, as the skin here after a while gave way, he was once more turned on to his back, the sacrum being by this time for the greater part covered over by healthy granulations; and whilst in this position the skin over the various spinous processes of the vertebræ which happened to touch the bed gave way. What with one thing and another, I never saw a patient suffer more intense agony, which was such, indeed, as to necessitate the full administration of chloroform fifty-five times consecutively for the dressing of the various sores; but, notwithstanding all this, he ultimately recovered with an anchylosed hip. The onset in this case was in the early part of the year; and the patient's room, large, lofty, and well ventilated, was in a house in one of our great squares. When this gentleman first came under my care, he was one of the healthiest-looking young men I ever saw, strongly built and most active; and he subsequently was one of the most dashing light cavalry officers in our central Indian campaign.

Some time after the occurrence of this case, the late Dr. Bence Jones happened to mention to me that he had been summoned into the country to a young gentleman, who was suffering from well-marked pyæmia, without, as far as could be ascertained, any previously existing suppurating surface. I then told Dr. Bence Jones of the above case of pyæmia after gonorrhœa, and begged of him to ascertain, if possible, if his patient was suffering from gonorrhœa. The patient died before Dr. Bence Jones saw him again, but at the post-mortem examination the existence of gonorrhœa was clearly proved. A third case of a similar nature, and in a young gentleman, was also mentioned to me by Dr. Guéneau de Mussy.

Such, gentlemen, are the cases of pyæmia occurring in private practice, to which I wished to direct your attention. They are twenty-three in number, and twenty-one of them fell under my own notice; the remaining two, the last being well authenticated, have been alluded to simply on account of their extreme rarity.

And now, if we proceed to analyse the circumstances under which pyæmia occurred in these twenty-three cases, it will be found that an operation was performed in six instances only. In four of these (the first four) the operation was of the most trifling nature—a single-thread seton, a small wart on the heel, a small wart on the scrotum, a small sebaceous tumour of the scalp; and it was only in the remaining two that the operation was of a somewhat severe character—amputation of the breast. Moreover, the first four were all in different years, and not in the same locality. The last two were in the same year, and within a month of each other; but one was in town, and the other in the country. And here let me note that the third case is also mentioned among those of recovery, this patient having had two attacks of pyæmia at several years' interval, and in different localities.

Of the remaining seventeen cases, in which no operation had been performed, there was a broken surface in eleven, and in six there was not even an abrasion. Of the eleven cases in which there was a broken surface, it was but small; in ten, ulceration of a small sero-cystic tumour of the breast, of abscesses in two, of tonsils in two, of bowel in typhoid fever in three, a needle broken in the leg, a small splinter of wood in the great toe. The eleventh case was the only severe one—compound dislocation of the elbow. The six cases in which there was no abrasion were—a slight injury to the foot followed by suppuration, inflammation of the lateral sinus and internal jugular vein in connexion with discharge from the ear after measles, abscess after parturition, and gonorrhœa in three. Of these seventeen cases, none occurred at the same period or in the same locality.

As to locality, of the twenty-three cases, sixteen occurred in town and seven in the country. Of the sixteen in town, all, with one exception—that of the young girl who, after running a needle into her leg, was admitted with pyæmia into the hospital,—were in the best parts of the town, scattered about, in good houses, and in good-sized, well-ventilated bedrooms, and well cared for, in fact, to all appearances, under most favourable conditions. The country cases—seven—were in different parts, and widely separated from each other, and their conditions, too, were in all respects apparently excellent.

As to age, the youngest patient was six, and the oldest close upon eighty. Of the remaining twenty-one, eleven were between fifteen and twenty-five, and ten between thirty and fifty.

As to local treatment, it was out of the question in several of these cases; and in several cases, too, all possible care and supervision on the part of the surgeon would have been of no avail. Of the twenty-three cases, eleven were under such circumstances.

In conclusion, pyæmia, it has been said, is caused, for the most part, by hospital-air, by foul air consequent upon the aggregation of surgical cases in the wards of our large hospitals; but pyæmia occurs also in cases even when placed under the most favourable conditions—perfect isolation, large airy rooms in the country, with plenty of fresh air, and in every way well cared for. Pyæmia appears, too, at times to be connected with atmospheric conditions; several cases occurring without any apparent cause, at, or about, the same period in different places. The two cases of amputation of the breast, which were within a month of each other, followed exactly the same course, one, however, being in town, and one a few miles out of town. And at the same time that these cases were under my care, other cases of pyæmia, which occurred in private practice at the same period, subsequently came to my knowledge.

Moreover, cases occur in which patients are apparently prone to pyæmia; the case of a gentleman who recovered from an attack of pyæmia, and a few years afterwards died of another attack.

The truth is, the causes of pyæmia are still to be worked out; and this, gentleman, is a problem the working out of which I would strongly urge upon the Clinical Society.

[*For the discussion which followed, see report of Clinical Society.*]

EXTRACT FROM A CLINICAL LECTURE ON A

CASE OF WAXY AND SYPHILITIC DISEASE OF THE LIVER, WITH ASCITES;

RECOVERY AFTER FREQUENT TAPPING.

By T. GRAINGER STEWART, M.D., F.R.C.P.,

Physician to the Royal Infirmary, Lecturer on Clinical Medicine and the Practice of Physic, Edinburgh.

In the course of a clinical lecture upon cases of ascites, with special reference to the indications for and the mode of performing paracentesis abdominis, the following case, which has been under observation for the past eighteen months, was described:—

Margaret M., aged 28, dressmaker, single, born in Edinburgh, recently residing at Philpstoun Mills, was admitted to Ward VIII. on June 1, 1872; examined on June 3, complaining of swelling of abdomen and extreme debility. The swelling had been noticed for five months.

History.—Ten years ago amputation through the left thigh was performed for disease of the knee-joint. Two years ago abscesses formed over the first left costal cartilage and over both shoulders, and at a later period above both wrists. Some of these healed after a considerable time, others continue to discharge thin watery pus. About six months ago the patient was under treatment for ulceration of the soft palate, with necrosis of the bones in the neighbourhood. Shortly after this she noticed that the abdomen was becoming distended, since which time it has gradually increased in size. About a fortnight ago crapulous diarrhœa set in. The motions were at first of a dark grey colour; now they are light-coloured and watery. About the time the abscesses formed, the patient was insufficiently fed, and lived in a damp house; since then she has been under more favourable conditions. She has

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always been much confined to the house on account of her occupation. Some of her maternal uncles and aunts were subject to abscesses.

State on Admission.—General Appearance: The patient is about the middle height, of dark complexion, pale, with dark rings round the eyes; is much emaciated, and seems to be in an almost moribund condition; temperature 100°. Alimentary System: Lips excoriated; teeth carious; gums anæmic; tongue red, flabby, dry, tremulous; fauces and palate inflamed; there is a perforation of the soft palate of considerable size, in consequence of which fluids regurgitate through the nose; thirst great; appetite almost gone; there is a feeling of weight in the epigastrium; flatulent eructations; occasional sickness, but rarely vomiting; bowels loose; the motions are light-coloured and watery. Abdomen distended, measures thirty-eight inches above the umbilicus; it is flattened above, and bulging laterally, its form altering on change of position; a dull note on percussion is always present at the most depending part; on palpation, the characteristic thrill indicating the presence of fluid is detected. The liver feels hard and smooth, and measures seven inches and three-quarters vertically in the mammillary line. Circulatory System: Apex-beat imperceptible; pulse 108, regular, very feeble; superficial veins of abdomen distended. Lymphatic System: Blood watery; tenderness on pressure over the spleen; splenic dulness increased; cervical glands enlarged and indurated on the left side. Respiratory System: Chest bulging laterally at the base; voice nasal and indistinct; the system otherwise normal. Integumentary System: Skin dry; purpuric spot above the right ankle (there were recently a number of similar spots); nutrition bad. Urinary System: No lumbar nor vesical pain; urine averages from fifty to sixty ounces, of a straw colour, neutral reaction, specific gravity 1005, no albumen nor bile. Reproductive System: Catamenia, which were always irregular after the amputation, have ceased for upwards of fourteen months. Nervous System: Complains of pain in the right, and to a smaller extent in the left, hypochondrium; hearing on the left side has been defective for some time; speech slow; memory weak. Locomotory System: The left leg has been amputated above the knee; other extremities much emaciated; sinuses over right shoulder and above both wrists.

The diagnosis then made was—General scrofula, with constitutional syphilis; waxy liver, with syphilitic bands of fibrous tissue passing through the organ, and pressing upon some branches of the portal system; waxy intestines, possibly waxy spleen and waxy kidneys in the early stage; considerable amount of ascites.

Let me indicate to you briefly the grounds for this diagnosis. The ascites was obvious; and as there was no general dropsy nor heart affection, it was equally apparent that some hepatic disease or obstruction of the portal circulation was its cause. The liver presented none of the characters of cirrhosis, nor did the history or constitution of the patient make it likely that this existed. On the other hand, the abundant evidence of long-standing strumous and syphilitic disease, and the enlargement and smoothness of the organ, made it clear that waxy degeneration was present. But this degeneration is not usually attended by ascites, and there was no evidence of thrombosis of the portal vein, so that an explanation of the dropsical accumulation was still to be sought. I had occasionally, in dissecting the bodies of syphilitic waxy cases, observed that the syphilitic masses or the cicatricial bands of fibrous tissue occupied positions such as that they pressed up divisions of the portal vein within the liver, and thereby led to atrophy of districts of liver-substance, and I thought it possible that the abdominal symptoms in this case might be explained by the existence of such changes. So soon as it became apparent that the patient was gaining strength and the treatment proving beneficial, I ventured to hope that although a considerable portion of the liver might become atrophied, compensatory hypertrophy of the other parts might yet take place, and the functions of the organ be re-established. This anticipation turned out, as we shall presently see, correct.

The diagnosis of waxy degeneration of intestine rested upon the previous history, the existence of waxy degeneration elsewhere, and the diarrhœa. As the intestinal symptom did not prove very intractable, I now doubt whether the degeneration really affected that part. The obstructed circulation may have had a larger share in its production than I at first supposed.

The symptoms which warranted the diagnosis of waxy kidney were the discharge, notwithstanding the ascites, of a large amount of pale and afterwards albuminous urine, along with the other evidences of waxy disease elsewhere.

The treatment adopted was with the view of checking the diarrhœa, relieving the tympanites, increasing the flow of urine, and improving the strength of the patient.

For the first of these indications there was given three times a day a pill containing of sulphate of copper half a grain, ext. opii quarter of a grain. The tympanites was relieved by assafœtida. As a diuretic, acetate of potash was given in the dose of twenty grains three times a day, and was afterwards combined with five grains of the iodide of potassium. The last indication it was attempted to fulfil by good, unirritating diet, and a teaspoonful of Parrish's syrup of the phosphates three times a day. Cod-liver oil could not be borne by reason of the diarrhœa.

On account of her extreme debility, paracentesis abdominis was not performed when she was admitted, but on June 18 (a fortnight afterwards), 360 ounces of fluid were drawn off. The fluid had a specific gravity of 1015, and on standing, large masses of lymph coagulated. For some time about this period the temperature continued about 100°, as it had been before the operation. A fortnight later the abdomen was again tapped to the extent of 350 ounces of fluid. Flatulent distension continued troublesome, but the diarrhœa had almost ceased.

The further history of the case is, that the patient required to be tapped at first every fortnight, and afterwards at longer intervals. The operation was performed twenty-one times, and from first to last the enormous quantity of 12,120 fluid ounces was removed. Notwithstanding this heavy drain on her system, the patient continued to gain strength and flesh, and the sinuses healed. After a short time almost the only medication employed was syrup of iodide of iron, in the dose of twenty minims three times a day. Liberal diet with a small quantity of wine were chiefly relied upon.

The urine was examined at short intervals, but no albumen was detected till November 26 (about six months after admission), when there was a slight trace. The daily amount of urine increased to seventy ounces, and for some time was above 100 ounces. A trace of albumen was constantly present; but before leaving the infirmary the quantity of urine diminished, and the albumen was frequently absent.

About a year after admission she was able to go out for an airing, and on July 31 it is noted that the patient is getting actually stout. The albumen in the urine is not constantly present, and when present gives only a slight haze with nitric acid. The abdomen has not been tapped since May 1, and although it contains a considerable quantity of fluid, the patient is to-day sent to the convalescent-house.

On September 22 she again presented herself at the infirmary, in the enjoyment of good health. The fluid had been accumulating very slowly. On the 25th paracentesis was performed. The fluid was clear, straw-coloured, and measured 170 ounces. Three days later the abdomen was examined. The walls were flaccid. On palpation, the left lobe of the liver was found to descend a little lower than the right. Liver dulness in right mammillary line about five inches from xyphoid cartilage to lower border an inch and three-quarters. In the left hypochondrium, and passing downwards and forwards, was a firm movable mass—viz., the lower end of the spleen; it extended two inches and three-quarters below the ribs, and to within an inch and a half of the middle line of the body; its vertical dulness in the line of the anterior axillary fold was six inches and a quarter. The catamenia had recently appeared for the first time for upwards of two years and a half.

The change which had been anticipated has thus apparently taken place. The marked diminution of the tendency to ascitic accumulation occurring coincidently with the diminution of the bulk of the right lobe of the liver, while the left had become enlarged, made it certain that new channels had been opened up for the portal circulation, and very probable that this had occurred in the left lobe, which was enlarging as the right became smaller. The disappearance of albumen from the urine, the closure of the sinuses, and the singular improvement of the general health, showed the value of the advantages afforded by the hospital and the convalescent-house, while the patient was indebted to the mechanical relief afforded by the paracentesis for the warding off of imminent death, and the gaining of time during which the restorative powers of the system could exert their salutary influence.

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ORIGINAL COMMUNICATIONS.

CASES OF NEUROSAL HEADACHE.

By C. HANDFIELD JONES, M.B. Cantab., F.R.S.,
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I HAVE put together the following cases as a contribution to the *Casuistik* of neurosal headache. Some of them are really interesting; the more ordinary ones I have cited briefly for the sake of the evidence they afford respecting one or two points:—

Case 1.—Mr. A. O., aged 24, subject to headache for many years, occurring with varying frequency, but much more frequent lately; the last week he has been very bad. During the attacks he can do no work, sometimes cannot read, objects look confused; he can read with one eye open, but not with both. Has had sickness during the attacks, but not lately. Feet and hands are cold during the attacks, and he shivers all over. Head feels tender to tapping; anything jars it easily. Much pain at back of head; his head is rather hot; a cold application is grateful. The attacks of headache last two or three days. Quinine used to stop them, but has failed on the present occasion. He does not know how the disorder originated; no other members of his family suffer from headache. If he gets low and works hard, it induces an attack. Bowels costive. No other disorder of health. Two days ago he had neuralgic pain, apparently sciatic, in the left lower limb; quinine has cured it. I prescribed K. Br. gr. xx., spt. æth. chl. ℥x., aq. ʒj., ter die, and a guarana powder 3tis horis. He was soon much relieved. I advised him to continue the bromide, and to take ol. morrh. ʒij. in dies, to relax his studies, and take outdoor exercise. Thirty-three days after his first visit to me he reported that he had hardly had any headache, and rarely any difficulty in reading, but that his sight was apt to be misty at times, so that he could not recognise persons quickly in the street, and objects appeared indistinct. This was more the case when he was tired. He had to look slowly and steadily at the title of a book some feet off to be able to read it; he could not read it at once, as he formerly could. He felt a sort of pressure behind his eyeballs. Pulse 66, very weak. He had taken the bromide steadily; three doses a day made him very sleepy, two did not. The guarana had proved useful, one powder being enough to ward off a threatening attack. Having regard to his debility, I substituted strychniæ gr. $\frac{1}{20}$, acidi nitrici ℥ij., spt. chlorof. ℥x., aq. ʒj., bis die, for the K. Br. mixture, continuing the oil. When I saw him eight weeks later he was looking well; had derived much benefit from the strychnia. He did not see me again for nearly six months, when he complained that he had been troubled lately with dimness of sight, the visual field becoming much contracted, so that he could only see objects directly in front of him. He indicated the extent of his visual field by placing his hands at the outside of each eye, so as to exclude all lateral objects. The dimness of sight was at times very great, unless he made a strong effort. No flashes of light or black spots. Near objects and distant were equally misty. This condition was benefited by brandy and soda-water. Has had headache lately. His eyesight is bad at times, without headache; if he then takes something for biliousness, his sight improves, but his head gets much worse. A few days ago, while his sight was bad, he got a temporary attack of aphasia, and could not remember the words he wanted to use; he also felt faint and sick. He had taken nothing to disagree with him. Mr. Critchett lately examined his eyes, but found them perfectly healthy. His general health is fairly good, but he is evidently not strong.

Remarks.—The visual disorder in this instance cannot be referred, I think, solely to derangement of the accommodating apparatus, for near objects and distant were equally misty; and the contraction of the visual field could not be explained in this way. It was the result, I believe, of central change. Some derangement of accommodation there probably was, as he remarked that his eyes seemed to have different foci. Perhaps some strabismus also existed, as he could read sometimes with one eye open, but not with both. The aphasia, which has been noted in other instances, I regard as a paresis of a special centre, possibly dependent on vasal spasm. The headache, which seems to have developed itself as the visual disorder subsided, was probably an analogous morbid condition, but affected a different locality. There was neuralgic tenderness of the scalp or cranial bones, but this was not the chief part of the headache. The capacity for mental exertion was clearly much impaired during the disorder. Vaso-motor spasm probably existed, during the attacks of headache, in the feet and hands, and perhaps in the cord itself, giving rise to the shivering. An exact *ratio symptomatum* of a case like this is hard to render; but we may see so far as this—that the morbid action was of the nature of neuralgia, and was attended with cognate disorders in motor nerves, viz., spasm and paralysis.

Case 2.—A lady, rather past middle age, of vigorous temperament, not anæmic, consulted me respecting headaches from which she had suffered for twenty years. The attacks occurred, at the time I saw her, every ten or fourteen days. I did not exactly learn whether they were more frequent, but they were certainly worse on the whole. The longest interval she had had was a month, which occurred under the use of tomatoes. These benefited her more than anything else. The headaches were very severe, were increased by noise, and by lying with the head low. No application when once a headache has commenced has any effect except to increase it, and the least disturbance only aggravates the torture. Her memory is bad when the headaches are coming on—she can't remember words, and can't read a bit—feels confused. My notes do not positively state what the condition of her mental faculties was during the continuance of the headache; but I believe it was essentially the same as at the commencement. She wrote to me once to say that "all she was ever able to do on the day of one of her severe headaches was to lie and suffer." Her face was flushed the day before, and also during an attack, and at the latter time was apt to be hot. When the headaches were coming on she had black spots before the right eye, and other figures. One, two, or three mornings before the headache begins, she wakes up finding the arm on which she has *not* been lying numb, and affected with "pins and needles" sensation. The numbness and paræsthesia last until the headache has gone off, which may take two or three days. The longer the interval, the more intense and long the attacks are. Has taken much chloral; it made the headache worse. Is not worse in winter, or in summer; season does not affect her, but she cannot stand a hot room at all. Her feet and hands are always cold. Catamenia have been always scanty. Bowels regular; are loose the day before an attack. Urine towards time when a headache is coming on deposits a whitish sediment. No indigestion. Headaches not always attended with sickness; this does not come on until the attack has lasted some hours. Pulse seems weak, but bears a strong sphygmometer pressure, and is not then arrested. Her mother had the same headaches, and so had her maternal grandfather; they ceased in him at the age of 50. He had gout, but she has never had any. Insanity existed in several members of her family; a sister was in an asylum at this time. The urine during one attack I found of natural colour, clear, acid, sp. gr. 1022, not albuminous. I gave her K. Br. gr. xx. ter die, and guarana to take when the attacks came on. After seventeen days had elapsed there had been no headache, though an attack appeared imminent when I first saw her, but she had got pain in her right leg, worse at night, but coming on also during the day; it was relieved by warmth. There was also some stiffness at the left side of neck. The K. Br. had produced a considerable eruption of acne. I applied the continuous current to the painful limb. This was two days later. The following day "all the pain in her body culminated in a violent headache," which commenced with an extension of what she thought was stiff neck, spreading itself all over the back of her head with great severity. As the attack subsided, the pain was "all in the forehead." She took three guarana powders without any good effect. Her own statement was that the galvanising drove the pain from the leg into the head. After she had taken the bromide over three months, I gave her a trial of strychnia, but it disagreed—caused headache and paralysed feelings in both arms. The dose was gr. $\frac{1}{48}$-$\frac{1}{24}$ bis vel ter die. The K. Br. was undoubtedly of great service; she persevered in taking it notwithstanding the unsightly acne it produced, and I believe takes it still. It did not prevent more or less recurrence of headache, but certainly mitigated its severity much. This result was the more remarkable as it had been given before without benefit. Perhaps the doses given were too small. I gave her some ol. morrh. after she had taken the K. Br. a good while, but I doubt whether she took much of it. I should mention that the uterus was found, on examination, quite healthy.

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Remarks.—The habitually cold hands and feet, the scanty catamenial flow, the injurious effect of hot rooms and of lying with the head low, the flushing of the face, and the heat of head during an attack, point very much in the direction of vaso-motor nerve disorder as one causative element in this instance. That intracranial hyperæmia existed during the attacks of headache I can hardly doubt; but I cannot think it was the sole or chief cause of the suffering. Hyperæmia would have caused more or less giddiness, delirium or stupor, and not pain alone. The cerebral functions were notably impaired during the attacks, but this impairment seems to have been occasioned rather by the severity of the pain rendering the patient unwilling to exert herself, than by any actual deprivation of functional power. The hereditary nature of the malady is very remarkable, as well as its affinity to the gravest of all neuroses—insanity. The prodromal occurrence of a sensory paralysis in another locality is very curious and interesting. We can hardly avoid considering this phenomena as essentially of the same nature as the headache, and I trace herein another confirmation of the general statement I made long ago—that pain is a kind of paralysis. The occurrence of pain in the leg, though it seems to have been quite exceptional, and its speedy disappearance as the headache set in, are noteworthy, as indicating, together with the prodromal numbness, a tendency in the nervous system to fall into a like state of disorder in various places. What was the locality of the disorder conditionating the headache? Admitting its affinity to neuralgia, I cannot view it as one of the fifth and occipital nerves and their nuclei. The pain seems to have been deeper seated than the coverings of the head, the face was exempt or nearly so, and there were no fixed tender points. Moreover, the patient was not weakly, and had not been exposed to debilitating influences. It is not possible, I believe, to answer the above query with any certainty; but some facts incline me to think that the hemispheres themselves are the principal seat of morbid action. The *quality* of the nerve disorder in this instance—a matter of prime importance to ascertain—was shown by the failure of strychnia and the good effect of bromide of potassium. Of the *nature* of the morbid change nothing more can be said than that it probably consisted in a temporary failure or derangement of nutrition of the nerve-cells. And respecting its *cause*, it may be surmised that some modification of gouty poison was concerned in inducing this failure. The more efficient cause, however, was undoubtedly that hereditary instability of nerve life—that proneness to derangement which a family history of insanity implies. Stomach disorder played no part in the way of causation. When sickness occurred it was evidently a secondary result.

(To be continued.)

ON BASIC CEREBRO-SPINAL MENINGITIS.(a)

By THOMAS STRETCH DOWSE, M.D., F.R.C.P.,
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Before entering upon a detailed account of the clinical facts which record this case of basic cerebro-spinal meningitis, which I have the honour to bring before your notice this evening, I will say a few words in reference to cerebro-spinal meningitis in general.

Until the time of Morgagni, inflammation of the brain and spinal cord, as distinct from their membranes, had not been thoroughly diagnosed during life, neither had the pathological changes of this inflammation been cleared up after death. To this great physician, then, is due the merit of having first given to us an insight into the nature of these lesions. In succession to him came the well-known names of Lallemand, Andral, and Bouillaud, from whose writings it would appear that cerebro-spinal meningitis had in all cases at that time an idiopathic origin; and it was not until recent years that cerebro-spinal meningitis, as an epidemic disease, made its appearance among the human race. It was from America that we first had tidings of its fearful ravages and of its rapidly fatal nature. Its occurrence in Russia and in Germany in the year 1864, especially in the town and neighbourhood of Dantzic, led the Government of this country to send out one of our greatest pathologists to inquire into the etiology and nature of the epidemic which was then raging; and I find in the *Transactions of the Pathological Society* for the year 1865 some account of the pathological changes of the cord in this disease by Dr. Sanderson. And some very pertinent remarks were then made by Dr. Murchison, who said that his attention had been directed to the subject of cerebro-spinal meningitis long before the epidemic at Dantzic had been heard of. He thought that the experiences described by Dr. Sanderson left no doubt as to the existence of inflammation of the membranes of the brain. But the important points to determine were—whether this inflammation was primary, or whether it was merely a local complication of some abnormal condition; and in the latter case, what was the real nature of the primary disease. Most pathologists admitted that there was such a thing as primary inflammation of the brain and cord independent of tubercle; but all practitioners know full well that the disease is extremely rare, and that when the lesions in question are found after death, they are most commonly due to some blood disease—such as that of typhus fever and pyæmia. And he further went on to state that, in his opinion, the epidemic was rather one of typhus, complicated with meningitis. To this, however, Dr. Sanderson replied that in his opinion the disease had nothing in common with typhus fever except in so far as each disease was dependent upon a specific poison. Here, then, we have two physicians of great eminence at difference upon a point of considerable and intrinsic interest, which it is possible for time and investigation to clear up. It has fallen to my lot to have some dozen or more cases of what might be termed purely idiopathic cerebro-spinal meningitis come under my care for treatment, and from common observation in reference to signs and symptoms I have come to the conclusion that it is a disease *sui generis*—not being due to any specific blood-poison, but, as in all my cases, to a vitiated state of the blood. The patients have not only been exposed to great privations of food, but to sudden changes of temperature—all this, too, in connexion with intemperate habits. In fact, the symptoms at the onset of the attack are in many points similar to those of acute myalgia or articular rheumatism. Clinical phenomena, verified by post-mortem appearances, have led me to consider inflammation of the brain and spinal cord, as well as its membranes, from three points of view:—1st. Where the superficies of the hemispheres, the cerebellum, and the posterior column of the cord are the seats of lesion. 2nd. Where the central ganglia at the base of the brain, the motor tract, and anterior column of the cord are the seats of lesion. 3rd. Where both are affected.

It might perhaps appear to be a somewhat difficult matter in so acute a disease as that which is now under consideration to diagnose with anything like precision during life by the presence or absence of mere signs and symptoms the exact location of inflammatory mischief. But with the knowledge of physiological anatomy to aid us, I do not think there can be any insuperable difficulty in the way to prevent us making a diagnosis with some fair amount of accuracy. It is nevertheless true that there are paraplegias attended by defective sensation as well as by inco-ordinate muscular movements, reflex irritation, spasms, and even convulsive seizures, where no lesion, even upon minute and microscopic examination, can be detected after death. That this is due to our inefficient powers of investigation cannot be doubted; and I will therefore venture at once to bring before you some practical points in reference to the three divisions or classifications of cerebro-spinal meningitis. It must be understood that I am now referring to that condition of inflammation the result of acute idiopathic morbid blood-change, and not to those conditions the result of a special cachexy, as of syphilis or tubercle. It has been proved by post-mortem investigation that the seats of lesion in the so-called cerebro-spinal meningitis or spotted fever have been confined almost uniformly to the superficies of the brain, the cerebellum, and the posterior columns of the cord; thus coming under my first classification, and presenting during life the following prominent symptoms:—Pain in back of head and neck, retraction of the head, and urgent vomiting, followed by a state of unconsciousness more or less complete, with eyes fixed and lustreless, and pupils insensible to light. Reflex irritability is well marked, and there is persistent spasm, and rigidity of groups or groupings of muscles, accompanied more or less with inco-ordinate movements, and not infrequently by tonic and clonic convulsive actions. There is an impairment of sensibility more or less profound all over the body, and the mental powers, as well as the special senses, are more or less deranged. In the second class, where the lesion is confined to the base of the brain and the antero-lateral columns of the cord, we have a series of

(a) Read before the Medical Society of London, December 15, 1873.

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phenomena significantly differing in their character from those just described, and which will be demonstrated in the case that I will at once bring under your notice.

M. C., aged 26, a stout, well-made, vivacious-looking woman, of dark complexion, the youngest of eight children, all of whom (herself excepted) are dead, has been leading an irregular life for many years, and for the past three months has given herself up to intemperate habits, and in consequence has been exposed to all sorts of privation. About two months ago she became infected with syphilitic poison, resulting in ulceration of the throat, secondary eruption, and dull aching pains about the body, which were of muscular localisation. But before this it must be remembered that her health had been very indifferent, and her vital powers greatly prostrated by debauchery.

On the evening of February 16, 1873, she found her legs to become (as she expressed it) excessively "weak and shaky." On the following morning the left leg was numb and immovable, and the right in a few hours became similarly affected, but not to so great a degree, and her sight would become transiently dim, as if a veil were drawn over her eyes. Almost simultaneously she lost power in both the upper extremities, accompanied with great difficulty in taking a full inspiration. And there was also both muscular and cutaneous hyperæsthesia of the integument and muscles of the chest and neck. When admitted, this condition of paralysis was augmented. She could not stand, and complained of dull aching pain all over the head, but more especially was it referable to the occipital region. There was no intolerance of light, but noise increased the pain and produced transitory mental confusion. The intellect was clear, countenance cheerful, voice husky, and there was partial deafness with each ear. She complained of pain upon pressure over the spinous processes of the lower cervical and upper dorsal vertebræ, extending over the scapulæ. There was numbness of the tips of the fingers, but hyperæsthesia with want of motor power in the arms, and grasping power in the hands. There was hyperæsthesia of both lower extremities, from the feet to the buttocks, with total loss of motor power. No control over sphincters. Skin and tongue moist. Bowels constipated. Urine alkaline and albuminous. Temperature 103°; pulse 120.

February 27.—Has passed a tolerably good night. Complains of special tenderness over the second and third dorsal spine. Has a feeling of "pins and needles" in the legs. There is constant vomiting of bilious matter, and she is unable to take a full and deep inspiration from want of power in the intercostal muscles. Temperature 100°; pulse 118.

28th.—Slept comfortably. Vomiting continues after taking food. Feels faint when raised in bed. Fæces constantly passing in a liquid form. Whenever pressure is made upon the body, purpuric patches appear; the whole of the back presents patches of this blood-staining. The urine is secreted in large quantities, and is loaded with pus, blood-cells, and bladder epithelium, besides free ammonia with ammoniac sulphide. Temperature, morning 101°, evening 101°; pulse 118.

March 1.—Symptoms all much the same as yesterday. Her intellect remains perfectly clear, and she laughs and jokes, and appears to be quite insensible to the grave nature of the malady from which she is suffering. The sensibility of the lower limbs is fugitive, erratic, and obscure. One minute she appears to appreciate the sense of touch, and directly after it disappears, nor can she usually distinguish which limb or which part of a limb is touched—in fact, the point touched is generally referred to some other part of the limb. Temperature, morning 101°, evening 101·4°.

2nd.—No alterations of symptoms. Temperature, morning 102·3°, evening 102·4°.

3rd.—Has passed a tolerably good night. Vomiting much less frequent. Urine plentiful in quantity, and it is now almost free from pus and albumen, and is scarcely at all alkaline. This improvement is owing to a catheter having been fixed in the bladder, to which is attached a piece of indiarubber tubing, so that no accumulation of urine can occur or decomposition take place within the viscus, as the urine passes off as rapidly as it is formed. Temperature, morning 103·3°, evening 102·3°; pulse 125.

I might here observe that it has been laid down by some authors that in myelitis the urine is invariably alkaline, and more especially is this the case when the seat of disease is centred in the dorsal region. This is said to be caused by paralysis of the sympathetic nerves of the kidney. Yet I am in doubt as to whether the urine, when secreted, is more alkaline than in health; at all events, not until the disease is very advanced and the blood itself becomes ammoniacal. It is true that in almost all paraplegias, the result of change in the cord-structure, the urine is passed alkaline per urethram, but I am convinced that this frequently, if not invariably, arises from its retention in the bladder and the conversion of its urea into carbonate of ammonia; and I think this statement is borne out by one's experience in reflex paraplegias, where the urine during life has been highly alkaline, but after death no change could be traced in the cord-substance.

4th.—Much the same as yesterday. Temperature, morning 102°, evening 104·1°.

5th.—Has not passed so good a night. The cutaneous anæsthesia of lower limbs remains the same. There is deep-seated hyperæsthesia, with some œdema of lower extremities. There are purpuric bullæ of both feet; increased heat of scalp, with thumping pain in the head. Temperature, morning 102·3°, evening 102·1°.

6th.—Same. Temperature, morning 102·1°, evening 103·3°.

7th.—Same. Temperature, morning 102°, evening 104°; pulse 120.

8th.—Has passed a restless night. Sensibility of both extremities never appears to be of the same degree. There are neither cramps, prickings, nor formications; neither are there involuntary startings or twitchings. From this it is inferred that the cord is implicated as low down as the cauda equina. Temperature, morning 101·2°, evening 103°; pulse 122. Dr. Brown-Séquard states that when the dorso-lumbar enlargement is inflamed, reflex movements can hardly be excited in the lower limbs, and frequently it is impossible to excite any. On the contrary, energetic reflex movements can always be excited when the disease is in the middle of the dorsal region or higher up.

9th.—Same as yesterday. Temperature, morning 101°, evening 102·3°.

10th.—A marked improvement has taken place in the thoracic muscles and upper extremities; all numbness has left these parts, and the breathing is less jerky. She can lift a pin between the finger and thumb, and perform the act of prehension with ease. Temperature, morning 102·4°, evening 100°.

11th.—Says she feels quite "well in herself" to-day. The intellect is clear. No pain anywhere unless moved. Says that when she places her hand upon her hips there is a shock as of electricity sent down the limbs. Morning and evening temperature 100°.

12th.—Has passed a quiet night. There are now occasional involuntary twitchings of lower limbs, which have certainly regained some amount of sensibility. The nurse says the bedsores are looking more healthy. There is less thirst, and upon the whole she seems much better. Morning and evening temperature 99°.

14th.—Pain down the spine has almost entirely left her, the hyperæsthesia of the thoracic muscles has subsided, and the arms have regained their normal tone, both as to sensation and motion. There is still no control over the sphincters. Temperature, morning 101·3°, evening 102·1°.

19th.—Up to this date her condition does not improve.

20th.—Has a pale, waxy, death-like appearance; persistent diarrhœa and vomiting; total anæsthesia of the lower limbs; increasing paralysis of the thoracic and intercostal muscles, so that she fails to take a deep inspiration. Says that her chest appears to have a weight upon it. Temperature, morning 104·1°, evening 105°; pulse 140.

21st.—Same as yesterday. Temperature, morning 104°, evening, 102°; pulse 160.

22nd.—Complains of dull, aching, throbbing pain throughout the whole course of the spine, from the occiput to the sacrum, which is increased by the slightest pressure or when she is moved in any direction. There have been severe attacks of shivering, preceded by an increase of temperature. She has at times a feeling of suffocation and of inability to inflate the lungs. There is dry, harsh bronchial breathing, with râles heard over the chest. The heart's action is regular, first sound indistinct. Temperature, morning 104°, evening 105°; pulse 160; respiration 32. [From the notes of to-day it will be seen that a decided change for the worse has taken place, and that degeneration of tissue, with attendant blood-poisoning, is going on.]

23rd.—Countenance dejected; eyes sunken; intellect clear; is frightened by the slightest noise; has repeated attacks of vomiting, rigors, and twitchings about the lips. Temperature, morning 104·2°, evening 105·4°.

24th.—Is decidedly sinking. Respiration extremely superficial, 48 per minute; countenance livid; lies in a lethargic,

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semi-comatose state; there is complete anæsthesia in the lower extremities, which is becoming more marked in the trunk. Temperature, morning 104·3°, evening 104°; pulse 160, weak and fluttering.

25th.—Is dying. The paralysis is general all over the body—both motor and sensory; respirations prolonged and stertorous; coma complete. Died at 5 p.m.

(To be continued.)

REPORTS OF HOSPITAL PRACTICE IN MEDICINE AND SURGERY.

CHARING-CROSS HOSPITAL.

CASE OF CHRONIC BRIGHT'S DISEASE PROVING FATAL BY SEVERE HÆMORRHAGE.

(Under the care of Dr. HEADLAND.)

F. L., AGED 30, a carpenter by trade, was admitted into the hospital on June 10, 1873, complaining of debility, weakness of the ankles, and swelling of the left elbow. The patient was found to be almost confined to bed from debility and stiffness of the joints of the legs. The left elbow was somewhat enlarged, not discoloured, and not tender or painful. Marked anæmia and considerable emaciation. The patient's wife gave the following account of him:—From the age of twenty-one he was subject to "gout in the joints." From the description given of the attacks there was no doubt they had been those of true gout. The disease frequently returned, laying up the patient for a week or more at a time. About Christmas, 1872, he was exposed to very severe cold, after having been at home for a week with gout: he had to lie-up again, and "was never the same man from that day." Fourteen weeks before admission he was seized with excessive pain in many of the joints, so that he could not move, and cried out. The doctor said he had "rheumatic fever," examined the heart daily, and said it was somewhat affected, and that the patient must be careful. From the rheumatic fever the patient recovered so far as to be able to walk about, but never returned to work, on account of debility and lameness. Three weeks after the fever his nose suddenly began to bleed one afternoon about four o'clock, and did not stop until seven o'olock in the morning. The patient lost much blood by the nose only, and he had general twitchings of the body. On and off since that time there have been slight epistaxes. For several months before admission the patient would rise at night to pass his urine. Since the fever there had been occasional swelling of the "front of the bones of the legs." It was uncertain whether his face and hands had been puffy. The patient never had scarlet fever, and to his wife's knowledge he had been otherwise a healthy man. The patient himself stated that he had a mild gonorrhœa ten years before, and never syphilis. His water had lately been very pale.

The case was considered for the first day or two to be simply one of subacute rheumatism, and was treated with ordinary alkaline mixture and a mild purge. More serious symptoms, however, soon supervened. Vomiting came on—first of food, and afterwards of "bile."

On June 15, a sudden and profuse hæmorrhage occurred from the mouth, without cough. "The blood ran from the mouth," according to the nurse. Shortly after epistaxis commenced. He was ordered gallic acid and sulphuric acid every four hours.

June 17.—Last evening a profuse discharge commenced from both ears. There are now great anæmia and debility, with soporosity and nearly constant general muscular twitchings. The patient lies inclined to the right side. There is frequent epistaxis in drops, and from both ears comes a clear reddish discharge. Frequent sickness and rejection of deep green stuff. No eruption of any kind or maculation on the skin. No epigastric pain or tenderness; belly rather depressed; bowels regular; pulse 116, rather full and bounding, very weak. No visible impulse of the heart in the present posture; præcordial dulness small; at the mitral apex there is a short, rough, somewhat indistinct murmur in systole; at both cardiac bases a soft blowing murmur in systole; hæmic murmur over the cervical vessels. The pulmonary resonance is somewhat impaired over the right chest-front superiorly; in the same situation, and downwards nearly to the base, the respiratory murmur is nearly inaudible, with apparently increased vocal resonance.

18th.—The patient lies soporose and snoring. The face is of a pale yellowish hue. There is twitching in every limb. An outburst of rather bright-red blood comes occasionally from the nose. This blood examined microscopically is found normal in every respect. From both ears there is a serous discharge; that from the ear on which the patient lies runs freely away; that from the opposite ear collects in the meatus, and has to be frequently wiped away. The patient is very deaf. The smallest quantity of any liquid food is at once rejected, of a muddy, dirty-greenish colour. No bleeding from the mouth; no spots on the skin. The serous fluid from the ears is slightly tinged red; it is found microscopically to contain an immense number of leucocytes, with a few red blood-corpuscles. Pulse 116, fairly full, soft, and weak. No urine has been passed for twenty-four hours. A considerable quantity is drawn off by catheter; it is perfectly clear and pale, and gives an enormous precipitate with nitric acid.

19th.—The patient died last night. The bloody draining and the sickness continued to the end.

Post-mortem Examination.—The kidneys are much diseased; weight three ounces and a half each; firmness, normal; considerable atrophy; the renal surface is very irregular, presenting an appearance approaching lobulation. Capsule abnormally adherent, leaving a roughly granular surface. The cortex is markedly wasted, and the whole section has a shrunken aspect. The heart is enlarged, weighing fifteen ounces and a half. There is much thickening of the left ventricular wall, the measurement reaching six-eighths of an inch at the thickest part. No valvular disease whatever. The right side of the heart contains very abundant yellowish-white coagula. The aorta presents but a very few spots of atheroma. The lungs, liver, and spleen are, roughly speaking, normal. An examination of the head is not allowed.

BELFORD HOSPITAL, FORT WILLIAM, N.B.

CASE OF SEVERE VERTIGO.

(Under the care of JAMES W. ALLAN, M.B., C.M.)

ALEXANDER McM., aged 54, weaver, was seen as an out-door patient on October 10, 1873. He was in bed complaining of vertigo—nothing else. Ordered a sinapism to be applied between the shoulders, and a ten-grain dose of potass. brom. at bedtime. This treatment gave no relief.

He was admitted into the hospital on October 13. Having observed that the pulse was slow and irregular, it occurred to me that the giddiness might be due to anæmia of the brain, the result of deficient heart-force. This view seemed to be borne out by the fact that the vertigo was relieved by laying the head down, and aggravated by raising it up. To improve the pulse, I put the patient on the following mixture:—℞. Tinct. digitalis ℥lxxx., spt. chloroform ʒj., aquæ ʒviij.—M. Sig., a tablespoonful three times a day. He was allowed porter and good diet. The improvement in this case was rapid and marked; the pulse became fair and steady, and the vertigo abated very decidedly. But the giddiness did not by any means disappear entirely, and I was reluctantly obliged to abandon the "cerebral anæmia" theory of the case, more especially as other grave symptoms presented themselves. These symptoms seemed to point strongly to intracranial mischief, and may be briefly summarised as follows:—Dilatation of the pupils. A painful spot below the vertex, and to the left of middle line. This spot painful whether touched or not; but pressure aggravates the pain and causes it to pass down the neck; when pressed with the finger-tip patient feels as if it were going in, the skull yielding before it. A region across the top of head seems to patient to be cold and open. When he speaks, the words seem to pass out at the top of his head. Feeling of weight in the head on the left side; motion of head from side to side suggests to his mind the idea of a cask with water in it. Lateral motion does this; antero-posterior movement has little effect. He is all right when he keeps the head steady. A sensation of something rattling down his left arm and left side of body; says the power in left arm is diminished. Troubled with burning heat in soles of feet for some time past. He referred the mischief in the head to a region about the posterior parietal half on left side. Patient was pale. He improved very much under treatment, and left the hospital on November 10.

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The Medical Times and Gazette *is published on Friday morning, Advertisements must therefore be sent to the Publishing Office not later than One o'clock on Thursday.*

Medical Times and Gazette.

SATURDAY, JANUARY 31, 1874.

MEDICAL MEN IN PARLIAMENT.

We had all of us been so accustomed to hear and to say that the late Parliament was worn out, wearied, and used up, and could not possibly live much longer, that we had quite ceased to expect its death, and the Gladstone announcement on Saturday last, that it had ceased to exist, burst upon us like a clap of thunder in a clear summer sky. "And then and there was hurrying to and fro"—a sudden marshalling of committees and rallying of electioneering forces,—and the nation was plunged, without note or warning, into all the excitement, bustle, and turmoil of a general election. All who may have been quietly and calmly nursing the idea of "some day" getting into Parliament have been called upon at a great disadvantage to suddenly make up their minds whether they will let slip this opportunity of realising their dreams, or will at once be up and doing; and we have anxiously scanned the announcements in our daily contemporaries, in hope of seeing that some additional medical candidates for Parliamentary honours have entered the lists. It was but a very small band of medical men that succeeded in gaining admission to the late Parliament, and a sad gap—*hiatus valde deflendus*—was made in their ranks by the retirement and subsequent death of Dr. Dalrymple; and there is, alas! as yet no sign that any effort will be made to increase the number of the representatives of our profession in the new Parliament. This is to be regretted in the interests of the profession, and still more in the interests of the general public. It would be rash to assert that any Bill directly and chiefly affecting our profession will be brought before the new Parliament, though this is quite possible; but it is certain that it will have to deal with measures in the consideration of which sound and well-informed medical criticism and advice will be an inestimable assistance and advantage. Sir Charles Adderley's important Bill is sure to be again laid before the House of Commons, and other measures concerning the public health will almost certainly engage or challenge its attention; and on all such, none are more fitted to advise the Legislature than able and largely informed members of our profession.

Moreover, the presence of medical men in Parliament is of importance, not only for the helping forward of good measures, but also for the prevention of bad ones and the repetition of false and mischievous arguments and statements. The opponents of the Contagious Diseases Acts, and even the anti-vaccinationists, are sure to make themselves heard again in the House before long, and can be most effectually met by the inexorable facts of well-ordered medical statistics.

But, in addressing the profession, there is no need to point out the good work that can be done, and has been done, by members of our profession in Parliament. The importance of their presence there in such strength as to have weight and force has long been acknowledged, and it is still a crying want. We trust that the small number of medical members in the late House of Commons will at any rate not be diminished by the accidents of a general election, and we will still hope it may be increased. It has been stated that Sir Henry Thompson has been invited to stand for the University of London, and that eminent body of science and learning might indeed be well and fitly represented by one of its medical or surgical graduates; but, though great fault is found with Mr. Lowe by many graduates of the University, we very much doubt if the discontent is general enough or sufficiently strong to displace him.

We need hardly remind our readers of the influence they may exert in the return of members free from mischievous medical crotchets, and unlikely to bait for votes by pledges to support, and to not oppose proposals for dangerous experiments on the public health. This at least they can do, if they have no thought of Parliament for themselves, nor any chance of supporting a medical candidate.

THE DISCUSSION ON PYÆMIA AT THE CLINICAL SOCIETY.

It has long been pretty widely known among us that the experiences of some of our surgeons in most extensive practice were such as would hardly bear out the notions first engendered of the statistics collected by the late Sir James Simpson, and which are embodied in the word "hospitalism." By this word was meant all those nameless and shapeless evils begotten in large receptacles for the sick, and manifesting themselves as pyæmia, septicæmia, hospital gangrene, phagedæna, erysipelas, and hospital sore throat, the most typical being those now termed pyæmia and septicæmia. Mr. Prescott Hewett has, however, from his own private experience, undertaken to show that these, as well as others of the group, may arise under conditions to which under no circumstances could the term "hospitalism" be applied. Again and again in his excellent address did the words occur "in one of the best squares in the West-end," "in a situation in the country altogether favourable," and so on. Yet he was able, from personal experience alone, to narrate no fewer than twenty-three cases of pyæmia occurring under such circumstances. In only six of these had any operation been performed; in four these were of the simplest, and the cases occurred in different years and in different localities. In seventeen instances there was no operation, and in ten of these there was no breach of surface; in several the breach of surface was very small; in one only was it severe. Sixteen cases occurred in town, seventeen in the country, and all in situations apparently favourable.

To this Mr. Hutchinson added something from his experience with regard to the lower animals, pointing out that in these pyæmia occurred under circumstances that could certainly not be called those of "hospitalism." But it was the experience of Sir James Paget which was strongest of all on this

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point. His opinion was firm, that pyæmia occurred at least as frequently in private practice as in a well-regulated hospital. Moreover, he pointed out that statistics were not adequate to the determination of the relative proportions between the two, though a soundly matured general impression might be equally good. He had by various expedients tried to get at a due understanding of the relative proportions of cases occurring after all kinds of operations, both in public and private, and though, as aforesaid, statistics failed, his mind was clear on the point. Moreover, he pointed out that in some cases in private, pyæmia appeared to start from the slightest possible causes, as from a chilblain or the chafing of a boot.

All this is exceedingly interesting and exceedingly important. It teaches us that the conditions of these so-called hospital maladies are not yet fully understood; for, as some said, when pyæmia occurs in public, it also occurs in private. Mr. Charles Hawkins, who, together with Mr. Holmes, did good service in bringing forward the experience of the new wards at St. George's Hospital and their Convalescent Hospital at Wimbledon, pointed out that there were certain times and seasons when Brodie disliked operating. These were—when there was a west wind, when it was very hot, and when the weather was changeable. Now, the first of these is very much the same rule as was worked out by Dr. Richardson here in London, and Dr. Addinel Hewson in Philadelphia—viz., never to operate with a falling barometer. But clearly this is not all; there are certain sets of cases which may, *cæteris paribus*, occur as readily outside a hospital as inside it. These are such as originate in retained and decaying placenta, injuries to bones, and so on. But here comes the grand distinction—a distinction clearly pointed out by Mr. De Morgan: true pyæmia may equally well originate in such cases outside as inside a hospital; but let one such case originate inside a hospital, how much more is it likely to spread from one patient to another, gathering force as it grows, till hardly to be eradicated!

But all through the observations of the various speakers, with the exception of Mr. De Morgan—and how able were those speeches our record shows,—there seemed to run a vein of error. It might be quite true that pyæmia may occur in the most unlikely places; but are these places in a thorough sanitary condition? Outwardly they may seem so; but in many of the best houses in London, the inmates might, without exaggeration, be described as undergoing a slow poisoning by sewer-gas. We all know that *pallida mors*, in the shape of typhoid, knocks impartially at the gates of the palaces of the rich as of the huts of the poor; and if so, the main agent in the propagation of typhoid being, no doubt, directly or indirectly, sewer-gas, the same poison may have other modes of manifestation. That this is so, experience clearly proves, for it shows that, where defective drainage exists, maladies, simple in themselves, tend to assume a serious type. Of none is this more frequently the case than of sore throat, which under such circumstances tends to assume all kinds of malignant types; and such is undoubtedly also true of other diseases commonly attributed to "hospitalism." We shall look with interest to the renewal of the debate.

THE EXTENSION-TREATMENT OF DISEASES OF THE JOINTS.

Every surgeon who is engaged in the treatment of diseases of the joints will be grateful for exact experiments showing the influence of extension on the intra-articular pressure and on the articular ends of bones; for, according to all experience, the value of this method of treatment depends entirely on the influence referred to. Such experiments have been made by Dr. Reyher, of Dorpat, on the knee-joints of forty fresh bodies (*Deutsche Zeitschrift für Chirurgie*, Band iv., Heft 1), with the following results:—When filled with fluid, the knee-joint always assumes a flexed position; and if the limb be now slowly restored to the normal, the intra-articular tension is considerably raised. The degree of flexion which is thus imposed upon the limb when the cavity of the knee-joint is completely distended, depends chiefly, however, upon another condition—namely, the degree of tension of the muscles immediately surrounding it. If all the muscles around the knee-joint are preserved, its greatest capacity is with the leg flexed at but thirty degrees. Bonnet's statement, that the greatest capacity coincides with an angle of sixty degrees of flexion, is true only when the joint is entirely free from the surrounding muscles. The reason of this is, that the quadriceps extensor, by means of its tendon, presses the patella against the condyles whenever the joint is flexed; and the same applies to the gastrocnemius in its relation to the portion of the capsule behind the joint.

In a normal knee-joint a weight of forty pounds is required to separate the articular ends of the bones by direct extension. It is indifferent for this purpose whether extension be made at the ankle or by means of a loop applied to the skin of the leg. These results are of importance, inasmuch as they are opposed to the view of Professor Hueter, of Greifswald, who declares that he was never able to procure "distraction" of the joint by extension on a loop applied to the skin—meaning by "distraction" the complete mutual separation of the opposed articular cartilages. The intra-articular tension of the knee-joint is, generally speaking, diminished by extension; and this diminution becomes more appreciable the smaller the amount of fluid in the capsule and the greater the relaxation of the surrounding muscles. On the contrary, when the joint is quite full, and the muscles are tense, the very slightest extension will considerably raise the intra-articular tension.

Dr. Reyher arrives at the following conclusions in regard to treatment:—It is possible to separate the ends of the bones at once by means of extension—that is, to produce "distraction" of the joint; but, to accomplish this, a weight of at least thirty pounds is required, and this weight has probably never yet been applied to the knee-joint of a living man. A smaller weight, however, applied for a longer time, may produce the same effect by a gradual extension of the ligaments. In cases where the joint contains much fluid—that is, in cases of abundant serous or purulent exudation—the intra-articular tension rises very high, and forcible extension would sooner produce a rupture of the capsule than "distraction" of the joint. Of course, any attempt at extension in such cases would be both useless and dangerous. But it might, nevertheless, be important in such cases to separate the articular ends of the bones, in order to prevent all pressure and the "ulceration" of the cartilages which might result. The author accordingly proposes to tap the joint subcutaneously first, and then to try "distraction."

Dr. Albert, of Vienna, has formed a very similar opinion of the value of extension in the treatment of inflamed joints (*Wiener Medizinische Jahrbücher*, 1873, iii.). After a great number of similar experiments on all the joints, he has found that when they are fully distended the intra-articular pressure always rises by extension; and that, in the case of the hip-joint especially, "distraction" is quite impossible.

THE WEEK.

TOPICS OF THE DAY.

Sir Louis Mallett, C.B., member of the Council of India, presided at a conference held last week at the Society of Arts Rooms, Adelphi, and, after a paper had been read by Dr. Archibald Campbell on "Indian Teas, and the Importance of Extending their Use in the Home Market," which was followed by a somewhat desultory discussion, Sir Louis closed the

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discussion by stating that the sale of all good Indian or China tea must be retarded by the importation of low-priced spurious teas, and he was one of those who entertained a very strong suspicion that adulteration had also taken place to a considerable extent in this country, and that it was by no means impossible that the process which had been discovered in China had been suggested and stimulated by the necessity of competing with the adulterations that have been made in England. Judging from his experience, he entertained very great confidence that if the Customs authorities received instructions to use their administrative machinery in checking the importation of spurious and adulterated tea, the thing would be done with the least possible injury and disturbance to trade. He should therefore be sorry to see the public abandon as hopeless the idea of attaining the desired end by means of the Custom-house, although as yet it has not been favourably received by the Government. This is so consonant with the opinions we have so long expressed, that of course we cordially endorse the opinion of a gentleman whose knowledge of the subject entitles him to speak with authority.

The general annual meeting of the governors of the Lincoln Dispensary was held last week; Lord Monson presided. The Committee in their report for the past year state that—

"During the last three months of 1873 Lincoln has been visited by a severe outbreak of scarlet fever, which has taxed to the utmost the activity of your house-surgeon. In very many cases the outbreak may be directly traced to the very unsatisfactory state of the drainage of the city. The matter has been repeatedly brought before the notice of the Local Board in the monthly reports of the house-surgeon, which have been from time to time communicated to the Right Worshipful the Mayor as chairman of that body. Your Committee cannot refrain from expressing a hope that they to whose keeping the health of the city is entrusted will before long take active steps to clear Lincoln of the charge of being one of the most unhealthy towns in England, to which charge she cannot but plead guilty so long as the death-rate in the city remains at 32 in the 1000. One hundred and sixty-seven patients remained on the dispensary books on December 31, 1872, and 1764 have been admitted since, making a total of 1931; of which number 99 have died, 1658 have been discharged, and the remaining 77 home, and 97 out-patients, are at present on the books."

The Medical Officer of the St. Pancras Union Workhouse reported to the Board of Guardians at their last meeting that five inquests had been held during the week in the workhouse. This led to a discussion upon the number of inquests held, during which it was stated that the matter was getting as bad as it was in Dr. Ellis's time; and the clerk having, in reply to an inquiry, stated that the requests of the friends of deceased persons for an inquest were made to the medical officer, it was resolved that in future such requests should be made direct to the Board. We trust that this resolution will not interfere with the holding of necessary inquests.

Dr. Max Schultze, the anatomist, died at Bonn last week.

We are pleased to announce that Dr. David J. Brakenridge, Physician to the Royal Hospital for Sick Children, and to the New Town Dispensary, Edinburgh, has been elected an Assistant-Physician to the Royal Infirmary, as successor to Dr. Thomas R. Fraser, resigned.

Dr. Barnes has been elected one of the Honorary Members of the Obstetrical Society of Philadelphia.

We understand that should Mr. Gant be elected Assistant-Surgeon to the Westminster Hospital, he will still remain on the staff of the Royal Free Hospital also. We congratulate that institution on its being able to retain Mr. Gant's valuable services; and we will venture to surmise that both the Westminster Medical School and the Hospital will benefit by Mr. Gant's well-known qualifications for teaching as well as practising surgery.

THE ASHANTEE WAR.

The latest intelligence from the Gold Coast brings us down to the 11th inst., up to which date no news of any importance had reached Cape Coast Castle from the front. Two of the expeditionary regiments—the 42nd and the Rifle Brigade—had already started for the Prah, but the 23rd Foot had been detained, in consequence of the difficulty, which we had already anticipated, of obtaining porters for carrying their supplies and necessaries. Although Cape Coast Castle and its neighbourhood were reported to be more healthy than had been known for some time, this latter corps was wisely detained on board ship until the necessary native transport could be procured.

Private accounts, received from the force on its way to the Prah, represent the track, which is dignified by the name of "road," to be in some places in a horrible condition from the immense amount of traffic taking place over it. The mud, in some parts, is described as thick and holding, rendering it somewhat difficult to draw up the foot for an advancing step without the risk of leaving the boot behind; whilst the stench at some portions of the route is said to be sickening. It is, however, satisfactory to learn that, up to the date of these advices, no undue amount of sickness had been reported.

The transport *Manitoba*, which had conveyed the 1st West India Regiment from Jamaica to the Coast, is, we believe, ordered to this country with 114 invalided officers and men, the whole of whom are reported to be doing well. Yellow fever still continued to rage at several stations on the West Coast, more especially at the River Bonny, the spot at which the outbreak commenced. The *Victor Emmanuel*, hospital ship, had arrived at her destination off Cape Coast Castle; and the wisdom of the authorities on board, in refusing to hold communication with the shore at Sierra Leone, except under the most stringent conditions, is fully justified by the intelligence that, although the mail steamers are kept in strict quarantine at Cape Coast Castle, they are admitted to *pratique* at Free Town, although nearly all of them are losing men by yellow fever from amongst their crews upon every voyage.

The *Simoom*, it is reported, has been ordered off to St. Vincent with invalids to take up her station there, in accordance with the arrangements already laid down; but there appears to be very little prospect of establishing a sanatorium at Madeira, from the obstructions to such a plan which have been raised by the Portuguese authorities.

At the different localities fixed upon as halting-places for the troops in the eight days' march to the River Prah from Cape Coast Castle, bamboo huts have been constructed and fitted up for our men; they are thatched with palm-leaves, and the walls are formed of split bamboos, allowing a free current of air in the daytime, and a protection against rain and night dews. Along each side of the hut there are guard-beds, also made of split bamboos, which are said to be very cool, and, with a blanket, exceedingly comfortable to sleep upon. Each hut is capable of accommodating seventy men. The officers' huts, which have been erected on a similar principle, are in the rear of the others, and are each intended to serve for two or three occupants.

The ample provision of medical stores of all descriptions provided by the Medical Department in this country at the commencement of hostilities has furnished everything necessary for the requirements of the expedition; and it has not been found necessary to supplement the stock already sent out in any particular. No further casualties have been reported amongst the medical staff on the Coast since the lamented illness of Dr. Home, who is reported to be on his way to England. Surgeon-Major Mackinnon has been nominated to succeed Dr. Home as principal medical officer on the Gold Coast. It will be remembered that Mr. Mackinnon

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proceeded to the seat of war on his failure to establish a sanatorium at Madeira.

LETTER FROM CAPE COAST CASTLE.

We have been kindly favoured with a copy of the following interesting letter from the seat of war, containing information of the latest date:—

"H.M.S. *Victor Emmanuel*, Cape Coast Castle, January 3.

"We arrived here on the afternoon of the 1st inst., just in time, altho' the last on the scene. The *Sarmatian*, with the 42nd Regiment, made a wonderfully quick passage (twelve days eleven hours). Since arrival, the transports with the troops—viz., *Himalaya*, *Tamar*, and *Sarmatian*—have gone out for a short cruise to fill in the time instead of lying here. The 42nd have had a few cases of erysipelas, and lost one. The 23rd lost two from sunstroke. Since arrival here, the regiments are disembarking by half-battalions, and proceeding towards the front at once. Sir Garnet Wolseley and Naval Brigade (250 men) went on the 27th ult. The Rifle Brigade disembarked on the 1st and 2nd. The first half of the 42nd disembarked yesterday evening, and the remainder this morning; I presume the 23rd will follow this evening.

"Luckily, the weather is very quiet—there is little or no surf on, but I believe it can be rough. They managed to disembark the half-regiment in two hours.

"As far as the Prah River (about seventy miles), huts have been built every seven or eight miles, and I believe everything will be very comfortable so far. After crossing the Prah, which they mean to do on the 15th inst., three or four miles a day will be enough for them. The pontoons have already been put down on the river, and as soon as ever the troops get up they will cross, and proceed to cut their way through the jungle. It is generally believed there will not be many more shots fired; but there are innumerable reports of all sorts—amongst others, that King Koffee is fortifying himself in Adansi Hill, beyond the Prah. Everyone is most anxious to get to the front—and no wonder! I explored Cape Coast Castle yesterday, and never saw a more wretched place. It must be bad at all times; but now, overcrowded and eaten up, it is beyond description. The officers detained there are in a wretched state—depressed at not getting up country, with little or nothing to eat and very bad quarters. A week or two of such work will use them up. It would have been well to quarter all or most of the staff officers in some of the empty transports. They could easily go on shore and do their work during the day, and return in the afternoon. There were about twenty ships lying here when we arrived, but they are disappearing daily. Since that time the *Argus*, *Encounter*, *Amethyst*, and a gunboat have gone in different directions to shell some places along the coast. Captain Glover's arrangements on the Volta have in a great measure fallen through. Instead of 20,000 or so, he has now only 5000 men with him to join the expedition with us at Prahsu. The deserters left because he would not consent to settle some of their petty enemies about, before proceeding towards Coomassie. It is under consideration to send a gunboat and small party of blue-jackets, under Capt. Parkin, of the *Victor Emmanuel*, to proceed up the Volta and look after some of these faithless tribes. I should have mentioned that old Koffee has circulated a report that he intends making a flank attack on Cape Coast Castle as soon as all the white troops have gone on, but there seems to be no chance of such. We are anchored two miles from the shore, and so far there has been no swell or rolling to cause much inconvenience. We have got four sick officers and three men on board this morning, and don't expect any more for another week at least. Amongst the officers is Capt. Gordon, of the 93rd, and Surgeon-Major Gore. Gordon has been through a lot of the country, and says there is nothing to be got in it. He was eighteen days on salt pork only, and no wonder he is now laid up with dysentery, etc. An occasional patch of Indian corn and a few bananas are all he ever came across in his travels. It is this absolute want of anything fresh to eat which has told and will tell on us more than climate even. The heat is not very great. It is cool at night, and about 81° during the day, but at all times very damp and depressing. Our principal medical officer is knocked up with dysentery and hard work, and goes home on the 4th inst. Home will be a great loss to us and everybody, as he had all the arrangements at his finger-ends. Surgeon-Major Woolfreys has now taken the post of principal medical officer. I believe the arrangements for bringing down the sick are very complete. Carriage for 600 per month has been provided for after the Indian fashion—viz., light dhoolies, carried by two men. About twenty-five mules, ponies, and donkeys have arrived, and promise to be of great use should they only stand the work for a few weeks. As far as one can judge, we have every luxury on board the *Victor Emmanuel* for 100 per cent. sick. I hope things will move off quietly with us, but I fear there may be a little jarring between the medical, military, and naval authorities. In a climate like this, it is difficult to get what you want without treading on somebody's corns. The mail leaves at eleven o'clock, so I must hold on for the present. "J. F. B."

DEATH OF DR. LIVINGSTONE.

There seems, unfortunately, to be little or no room left for doubt that Dr. Livingstone died last summer near Unyanyembe. The feelings of sorrow and disappointment which were so generally expressed on the arrival of the first announcement of Livingstone's fate, on Monday last, were in a great measure relieved by the reassuring remarks of Dr. Kirk at the meeting of the Geographical Society the same evening. Dr. Kirk expressed his belief that the report was but an exaggerated version of certain rumours of Livingstone's death which were current in Zanzibar in the autumn, and which he had ascertained to be without sufficient foundation. But neither Dr. Kirk nor the members of the Geographical Society can now hesitate to accept as correct the sad news published on Wednesday, especially as it comes from two independent sources. Lieutenant Cameron, at the head of the Livingstone Relief Expedition, had written to the coast, giving certain details of the death of the great traveller, whose body he was daily expecting. Livingstone died of an attack of dysentery of a fortnight's duration, which supervened on an exhausting march and prolonged exposure to wet in a marshy country. The measures which are said to have been taken by the native followers to preserve the body, prove the great respect or even reverence entertained by them for their master. The confirmatory report reaches us *vid* Gotha, in the shape of a communication from Zanzibar, which was sent by Brenner, the German African traveller, to Petermann, and substantially agrees with the more direct one. We shall anxiously look for further news from the same quarters.

"HOSPITAL SATURDAY" FOR THE WORKING CLASSES OF THE METROPOLIS.

It is very singular, and yet instructive, to notice how many people there are in this world who, without an attempt at originality themselves, are yet extremely anxious to elaborate the ideas of others. Some gentlemen of this description have recently held a meeting at which it was proposed that one Saturday in every year should be set aside for the purpose of organising a collection amongst the working classes in aid of the metropolitan hospitals. This proposal strikes us as altogether out of place. Public hospitals are intended only for that portion of society whose means do not admit of their obtaining medical relief in any other way, and their revenues are provided by the charity of the wealthy. Any sum which might be raised in the manner now proposed from the operative class would be much more fitly retained by them to meet the requirements of convalescence. Further, it is well known that every working man enrols, or ought to enrol, himself as a member of a club, to which he has to pay a weekly sum, receiving in return what medical attendance he may require for himself and family from the gentleman appointed to act as club-doctor. Then there are local dispensaries in all directions, the payment to which of a small sum weekly or monthly secures for the provident contributor the necessary medical attendance in sickness. These, again, are mainly supported by the poorer classes; and we think the result of the present movement will prove that the working

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man will scarcely feel himself called upon out of his slender means to aid the funds of the larger institutions, from which, except through his own providence, he ought not to look to receive any benefits.

One of the speakers at the above meeting very pertinently remarked that, as the collection on the now established Hospital Sunday took place at churches and chapels, from which edifices the working classes were by no means shut out, they had the same opportunity presented to them for subscribing to the work of charity, should they be inclined to avail themselves of it, as the wealthiest subject in the land—a remonstrance, however, which failed to modify the resolutions of the promoters of the scheme.

We would wish to give every credit to the right feeling of the gentlemen who have inaugurated the movement, but we think that they might, without much difficulty, have found other and more fitting methods for benefiting the revenues of the metropolitan hospitals.

JUNIOR SURGICAL SOCIETY OF IRELAND.

We are glad to learn that this Society has just been revived under the most favourable auspices. The opening meeting took place in the Albert Hall of the Royal College of Surgeons on the evening of Prince Alfred's wedding day, January 23. The chair was occupied by Dr. Denham, President of the College; and amongst those present were—Mr. Tufnell, Vice-President; Dr. Benson; Mr. W. Stokes, Professor of Surgery; Dr. James Little, Professor of Medicine; Dr. E. D. Mapother, Professor of Physiology; several of the Demonstrators of the School; and many visitors. An admirable address on the present state of "Medical Knowledge and Treatment" was given by the President of the Society, Dr. Richard Drury. A vote of thanks to him was subsequently proposed by Mr. Tufnell, seconded by Dr. Kidd, and carried by acclamation. Dr. Mapother then moved that the Society was deserving of the confidence of the Council of the College, —a resolution which was seconded by Dr. Little, and carried unanimously. After some interesting remarks from Dr. Benson (whose youngest son, Mr. Arthur H. Benson, and Mr. Edward B. Meredith, are the honorary secretaries of the young Society), the second chair was taken by Mr. Tufnell, and a vote of thanks to Dr. Denham was proposed and carried. The Society then adjourned to the evening of Friday, February 6.

BRITISH MEDICAL BENEVOLENT FUND.

The annual general meeting was held on Tuesday, January 13, George Burrows, M.D., F.R.S., President, in the chair. The report showed that the total amount received by the Honorary Financial Secretary during the year 1873 (including subscriptions and donations, and a legacy of £10 from the late Dr. Dendy) was £1505 6s. 5d. The number of distressed medical men, or their widows, to whom grants of immediate relief were made was 115; but, as in many instances the recipients had families dependent upon them, the actual number of persons relieved was considerably in excess of this. The number of annuitants is thirty-four, of whom nearly all receive £20 per annum. An earnest appeal is now being made to the profession for help to increase the annuities to 10s. a week. Special votes of thanks were accorded to Mr. N. Henry Stevens, for his services as Hon. Secretary for cases during the past year; to Messrs. J. R. Hill and E. Parker Young, as Auditors; to Mr. Webber, Hon. Financial Secretary; also to Messrs. Churchill, for the use of a room for the meetings; to the editors of the medical journals, for their continued advocacy of the claims of the Fund; to Dr. Hare, as Treasurer; and to Dr. Burrows, for presiding. The following is a list of the Committee and officers for 1874:—*President*: George Burrows, M.D., F.R.S. *Vice-Presidents*: J. Warburton Begbie, M.D.; Sir W. Fergusson, Bart.; Sir W. Gull, Bart.; Charles J. Hare, M.D.; Sir W. Jenner, Bart.; Sir James Paget, Bart. *Trustees*: H. W. Acland, M.D., L.L.D., D.C.L., F.R.S.; Geo. Burrows, M.D., D.C.L., F.R.S.; Dr. G. C. Jonson (Chairman of Committee); Sir James Paget, Bart., D.C.L., F.R.S.; Edward H. Sieveking, M.D. *Other Members of Committee*: Edward Ambler, Esq.; Edmund Birkett, L.M.D.; W. H. Broadbent, M.D.; H. Bullock, Esq.; John Churchill, Esq.; Nath. H. Clifton, Esq.; George T. Dale, Esq.; Stamford Felce, M.R.C.P.; J. F. France, Esq.; D. De Berdt Hovell, Esq.; Thomas Jervis, M.D., J.P.; John Liddle, Esq.; W. Martin, Esq.; John Morgan, Esq.; J. T. Mould, Esq.; Harvey K. Owen, M.D.; John C. Steele, M.D.; N. Henry Stevens, Esq.; Richard Stocker, Esq.; E. Parker Young, Esq. *Treasurer*: Charles J. Hare, M.D., F.R.C.P. *Honorary Secretaries*: Charles S. Webber, Esq., F.R.C.S. (Finance), 1, Upper Berkeley-street West, W.; Geoffrey Hett, M.D. (Cases), 1, Ledbury-road, W.

LONGEVITY OF MEDICAL MEN.

In reference to the influence of professional occupations in life, it seems that clergymen are, on the whole, the longest, and medical men the shortest livers. Dr. Casper, of Berlin, in his interesting work on the duration of human life, gives the following conclusions on the subject:—The average age of clergymen is 65; of merchants, 62; clerks and farmers, 61; military men, 59; lawyers, 58; artists, 57; and medical men, 56. The medium duration of life in Russia he states at about 21 years; in Prussia, 29; in Switzerland, 34; in France, 35; in Belgium, 36; and in England, 38 years. Another writer of great experience proves that, under ordinary circumstances, man can live six or seven times longer than the years required to attain puberty. This epoch is placed at our fourteenth year. This calculation would therefore yield from 84 to 98 years of age. Our own imprudences and the disorders resulting from them are more hostile in abridging this period than nature. It appears, however, on reference to the obituary of the past year in Messrs. Churchill's "Medical Directories," that many of our professional brethren exceeded the former age, whilst others nearly reached the highest. Taking them in alphabetical order, we have—Dr. J. Ashley, 89; Mr. C. E. Bissett, 84; Dr. F. Borton, 83; Dr. T. Brickwell, 86; Dr. J. Campbell, 81; Dr. W. Cooke, 87; Mr. B. J. Crisp, 81; Mr. E. Daniel, 80; Mr. R. S. Eyles, 82; Mr. J. Griffiths, 81; Mr. J. Hardman, 85; Sir H. Holland, 86; Mr. J. Jordan, 87; Mr. S. Kerswill, 92; Mr. W. Mee, 81; Mr. T. Mein, 93; Dr. J. Montgomery, 83; Mr. J. Moore, 87; Mr. J. North, 83; Dr. R. L. Pennell, 80; Sir Wm. Rae, 86; Mr. T. Schofield, 80; Dr. J. G. Sparke, 85; Mr. G. Swann, 80; Dr. J. Torrie, 82; Mr. E. H. Vise, 84; Dr. J. K. Walker, 86; and Mr. S. White, 80. The united ages of these twenty-eight nonogenarians and octogenarians amounted to 2354 years, giving an average of upwards of 84 years to each. The same obituary records the death of more than half a hundred septuagenarians whose united ages amounted to 3997 years, giving an average of upwards of 74 years of age to each. Perhaps the best maxim, says a well-known writer, to prolong our days, and render them as tolerable as possible, is the "*Bene vivere et lætari.*"

LIBEL ARISING OUT OF A MEDICAL OFFICER OF HEALTH'S PROCEEDINGS.

There comes to us from Ireland an account of a case which began as a hard one for the medical man concerned, but which ended in a libel by this doctor on the original offender. The local medical man condemned some meat belonging to a member of the Ruthdrum Board of Guardians, but, being unable to recover his costs, he applied to the Board to recoup him, they having instructed him to take proceedings. On this occasion the butcher-guardian

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delivered a somewhat violent speech against the doctor, who was refused his costs. Stung by this, the medical man wrote a letter of a libellous character to the *Wicklow News*, which was promptly followed by an action by the butcher against the unfortunate doctor, who had thus put himself in the wrong. The defence was, that the subsequent letter was covered by the previous speech; but this was held to be unsound, so the case went against the medical man, who undoubtedly was in the first instance in the right, but as clearly put himself in the wrong.

A NEW COUNTRY HOSPITAL.

At a large and very influential meeting at Grantham, on the 12th instant, a resolution was passed—"That it is desirable to establish a hospital in Grantham for the town and neighbourhood"; and a powerful committee was appointed to carry the resolution into effect, with every prospect apparently of success. Grantham is a rapidly-growing town, and has become a very active centre of manufacture (more especially of agricultural implements). There can be no doubt, therefore, that a well-built and well-ordered hospital will be a very valuable and useful addition to the town charities; while it is equally certain that there is in the town itself and its neighbourhood wealth enough to support such an institution. We heartily wish the movement good and speedy success.

MEDICAL RETURNS FROM SHOREDITCH.

The Shoreditch Vestry last week unanimously carried the following resolution:—"That the Medical Officer submit periodical reports as to the sanitary condition of the parish, and also an analysis of the birth- and death-rate in comparison with the whole of the metropolis." This analysis is furnished by most of the medical officers of health in London, and we think the vestry of Shoreditch have imposed a very wholesome and useful regulation on their medical officer.

HUNTERIAN SOCIETY.

The annual general meeting for the election of officers and other purposes will be held at the London Institution, Finsbury-circus, on Thursday, February 12, at seven o'clock. The annual oration will be delivered at eight o'clock, by John Cowper, F.R.C.S. The dinner will take place at the Albion Tavern, on Friday, February 20, Thomas Bryant, F.R.C.S., in the chair, which will be taken at six o'clock.

HOSPITAL SATURDAY.

Sir Sibbald D. Scott presided at a meeting held on Saturday for the purpose of considering the propriety of establishing, for the contributions of the industrial classes specially, a Hospital Saturday for London. A resolution was passed in favour of such an object, and a committee was formed for carrying it out.

BROMIDE OF CALCIUM IN THE TREATMENT OF SYPHILITIC NEURALGIA.

This remedy has been lately strongly recommended by Dr. Hammond, of New York (*American Journal of Syphilography*, p. 307), in the above disorder. He has found it succeed in removing the pain when iodide of potassium and mercury have completely failed. The dose used was from fifteen to twenty grains three times a day; and he generally orders an ounce to be dissolved in four ounces of water, and a teaspoonful to be taken in the morning and at midday, and two teaspoonfuls at night. In three cases a cure resulted in from seven to twenty days, while the general health improved concurrently, and in no case did the pain return. In two of the cases there was cervico-occipital neuralgia, worse at night, and one of these patients had excessive tenderness of the skin of the nucha and the scalp covering the occipital bone and the posterior parts of both parietal bones, which was increased by physical or mental exertion, or even by rapidly moving the head backwards and forwards. Dr. Hammond also mentions two other successful cases: one of neuralgia of the ulnar and radial nerves on the left side in a woman infected with syphilis by her husband three years before; and the other of neuralgia of the ophthalmic branch of the fifth nerve. In three other cases the bromide failed. Dr. Henry, the editor of the *Journal of Syphilography*, adds a note to Dr. Hammond's paper, in which he states that in the last two years he has by the use of the bromides had "more than ordinary success" in the treatment of more than fifty cases of inveterate syphilitic neuralgia, where iodide of potassium and opium had failed. He has found benefit from the bromide of quinine in combination with iodide of potassium.

MODRZEJEWSKI ON THE CHEMISTRY OF AMYLOID DEGENERATION.

Klebs's *Archiv für Experimentelle Pathologie* (November, 1873, s. 426) contains an article by the above writer, dealing with one or two points of interest connected with amyloid disease, especially whether the products of decomposition of the amyloid material correspond to those of albumen qualitatively and quantitatively, or not. Kekulé and Friedreich have already shown that its chemical composition is as nearly as possible that of albumen. Experiments were made on two extremely degenerated amyloid livers—one from a man with phthisis, and the other from a woman who had died of tubercular meningitis. The spleen and kidneys were also affected in both cases. Two methods were used for obtaining the amyloid substance in a pure state. The first was that of Kekulé. The liver, cleared as much as possible from its peritoneal covering and connective tissue, was cut up small, and digested for twenty-four hours in water at 20° cent. It was then pressed dry, and boiled for several hours in fresh water. This removed the soluble albumen and the gelatinous substances present. It was then pressed again, and extracted with diluted alcohol and ether successively. The residue, a greyish-white body, gave all the reactions of amyloid substance. A portion of this was further treated by the second method—that of Kühne and Radnew,—which consists in its digestion with a weak solution of pepsine in hydrochloric acid, and precipitation with baryta-water, in which amyloid substance is insoluble. A rather whiter powder was obtained than by the first method, but there was no other difference in its properties. To determine now the character of the products of decomposition of the body thus prepared, one part of it thoroughly dried was digested in a water-bath with three parts by weight of sulphuric acid and six of water, and afterwards boiled for several hours in an apparatus which returned the vapours into the retort. The solution was cooled, neutralised with chalk, and filtered. The filtrate was then treated with oxalic acid to remove any calcium sulphate, and then with lead carbonate to remove excess of oxalic acid. The solution, after being cleared by sulphuretted hydrogen from all traces of lead, was found, on slow evaporation, to yield first the characteristic needles of tyrosin, and on further concentration globules of leucin, but these were the only products of decomposition which could be detected. The quantities of tyrosin and leucin appeared to correspond to the calculated amounts for albumen similarly decomposed, but the leucin could not be so accurately determined as the tyrosin. Modrzejewski concludes from his experiments that the proximate decomposition products of amyloid substance are very similar to those of the albuminates.

There were upwards of twenty cases of cholera a day at Munich last week. In consequence of the continuance of the epidemic, the Imperial Cholera Commission appointed by the Diet under an Act of 1873 are making local inquiries.

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MORE GOSSIP ABOUT SNAKES.

(*From our Madras Correspondent.*)

DR. SHORTT'S EXPERIMENTS WITH VIPER-POISON: UNCERTAINTY OF ITS EFFECTS—THE KING OF SNAKES—PROPOSED OPHIOLOGICAL CONGRESS.

ALL over the civilised world people seem to be ready greedily to read anything that is to be said about those ancient enemies of our race—the snakes: so I make no apology for giving you some details of a most instructive morning that I spent at Dr. Shortt's.

Having a great interest in the question of the destruction of the blood globules in disease, and having read in Fayrer, and myself witnessed in former experiments of Dr. Shortt's, the effect of the viper-poison in disintegrating the blood corpuscles (whilst the more fatal cobra-poison has no such effect), I eagerly availed myself of Dr. Shortt's invitation to pass a quiet morning with him, and see some experiments with various kinds of viperine snakes.

Four snakes were selected for the experiments—a *Trimerisurus viridis*, which was made to bite a brown chicken; a *Trimerisurus anamallensis*, which bit a black chicken; another specimen of the same species, which bit a dog; and an *Echis carinata*, which bit a third chicken. The echis was a very tiny snake, with a body not larger than a goosequill; but the history of its achievements may be very brief: the chicken toppled over and fell off the table in two minutes, and was dead in two more.

The effects of the poison on the black and brown chickens were very speedily shown, and were watched by me with great interest for more than three hours, as I sat with note-book and pencil recording the symptoms. These were perfectly alike in each fowl. They began by a look of lumpiness and ruffled feathers, and a halting upon the side whose thigh had been bitten. Then they became stupid, so that they were easily caught and placed on a table, where they remained without moving. Their entire condition was one of narcotism, *pure and simple*. There they stood, usually on one leg, sometimes on both; shutting sometimes one eye, sometimes both; nodding their heads, and putting their heads under the wing, as in natural sleep; then waking with a start, looking stupid, as if trying to keep awake,—in fact, they resembled nothing so much as people in church on a hot summer's evening during the sermon. When roused, they greedily pecked up some rice, but fell asleep over the dish, with some of the rice in their beaks. The pupils were unmistakably dilated. Thus these creatures continued till I was tired of watching them; but my interest in the matter was so great that I called each day for the next two or three days to see them, when I found them in perfectly good health, and yet with the bitten thigh unmistakably swollen and blue from subcutaneous ecchymosis.

The dog suffered most severely from the bite, and yelled fearfully. He limped away with the bitten leg useless, and soon lay down in a state of torpor, breathing very heavily; apparently quite insensible to touch or wound, for he did not wince in the least when I punctured the bitten thigh with a lancet. He was so scabby and mangy that I did not care to examine him too closely. The main fact is, that after lying all day twitching and torpid and apparently dying, he revived in the evening, and took rice. Next day he was still very torpid and languid, with the bitten thigh very swollen and œdematous. The day after, he seemed, as I was informed, in very good health, and showed his dislike of ophiology by running away to quarters where he would be safer from experiment.

Whilst watching the dog and chickens that survived, I examined the blood of the chicken killed by the echis. The bitten thigh was black from ecchymosis under the skin. The effused blood was glairy, and under the microscope all its globules were seen to be shrivelled and empty; whilst those taken from any other part of the body, or from the large veins, were quite natural. I could detect nothing amiss in blood which issued from a puncture close to the bitten part of the dog's thigh.

The snake which bit the dog, died next day; he evidently was languid and sick. I give the narrative as illustrating the difference between a strong and weak dose of poison, and some of the sources of error which may beset the trial of antidotes.

Besides the vipers, whose feats I have recorded, Dr. Shortt's snakery contains a cage of remarkably fine cobras; but the pride of it is a couple of specimens of the king of snakes, the *Ophiophagus elaps*, the largest and savagest of poisonous serpents. One of these is twelve feet long, and very fierce. It is instructive to watch the difference between him and the cobras. The latter are mild-tempered, raise themselves in a threatening attitude by way of precaution, but are quite ready to glide away if let; the ophiophagus, on the contrary, will fly at and attack man, beast, and fish, and his fangs are larger, while his venom is equally virulent with that of the cobra.

It is said that Dr. Shortt meditates a voyage to Australia, taking with him a stock of live cobras, to give Professor Halford an opportunity of testing the value of ammonia as an antidote. I would propose an Ophiological Congress, consisting of Fayrer, Shortt, Nicholson, Weir Mitchell, and Fayrer's Calcutta assistants, with a select body of experimental physiologists, for the authoritative settlement of various questions. Its sittings would be very attractive. R. D.

ON THE HYGIENE OF HOSPITALS.

By M. BOUCHARDAT,

Professor of Hygiene at the Paris Faculty of Medicine.

UNDER this title Professor Bouchardat has published, in the *Revue Scientifique*, December 13 and 20, a highly interesting lecture recently delivered at the Faculty. It is characterised by much critical acumen, and in it some novel views are set forth. Too long to admit of translation *in extenso*, the following abstract will be found to comprise all its essential features.

M. Bouchardat observes that this is no new question for him, having engaged his constant attention since 1837; and he claims to be one of the first who brought it prominently forward, in his lectures on hygiene, demonstrating the fatal consequences of overcrowding to lying-in women, to the subjects of operations, and to children, when truths now so generally admitted were beginning to be but dimly recognised. The basis of his present observations is founded upon the official statistics of the Paris Hospitals (tabular views of which are given); and this is a subject with which he feels well qualified to deal, having been for the last forty years officially connected with the Assistance Publique.

"Taking the figures furnished by these tables as our basis, let us examine the principal questions which present themselves to us when we investigate hospital hygiene. We may state generally—all else being alike—that a hospital is better in proportion to the small number of beds it contains. It is incontestable that the *chances of contagion increase with the amount of agglomeration of patients suffering under contagious diseases;* and it is especially in affections of this class that the differences are remarkable, as we shall show further on. In the hospitals into which diseases of all kinds are received, as is the case with the Hôtel-Dieu and the other general hospitals of Paris, the amount of mortality differs much less than *à priori* might be expected. Thus, in the tables for the decennial period 1855-64, the mortality does not vary much in the different hospitals, notwithstanding the notable differences in the number of beds. The Pitié and the Lariboisière, for example, have a higher mortality than the Hôtel-Dieu, although their populations are less.

"The difference in the amount of mortality of large and small hospitals is infinitely less considerable than theorists are so fond of asserting it to be. The inferiority of large hospitals in this respect only relates to a certain category of diseases to be presently noticed; and if the admission of such be diminished, the great hospitals cease to manifest such inferiority. The situation of the hospital, the suitable arrangement of its various constructions, and its efficient ventilation have certainly their utility; but this is far less considerable than is generally believed. We have only to examine the mortality returns of the different hospitals from the commencement of the present century to become convinced that these conditions are not those which play the principal part in the question of hospital *encombrement*. Compare the crowded and dilapidated buildings of the Hôtel-Dieu, or the wards of the

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Charité all communicating one with another, with the good arrangements and spacious constructions of the Pitié and the Necker. How great are the differences in favour of the latter; and yet there are fewer deaths at the Hôtel-Dieu and the Charité than at the Pitié and Necker! Great importance has been attached as to the placing a hospital in the vicinity or at a distance from a stream of water. But it will be found that the decennial mortality is not higher at the Hôtel-Dieu, built on both banks of the Seine, than at the Beaujon, which is far removed from that river. It is an opinion very generally accepted, that a hospital is better placed on a height than on a low level. This view is just, but the influence exerted is infinitely less than is supposed. Compare once more the mean mortality of the Hôtel-Dieu and the Charité with that of the Beaujon and Lariboisière, and the advantage is with the two former, although they are built in the lowest portions of the town, while the others are placed on high ground. That a hospital should be placed in a large and open space is a good indication; and yet Lariboisière, Necker, and Beaujon, although they are well isolated, furnish a higher mortality than the Charité, which is blocked in by habitations. The efforts of science to secure efficient ventilation can only merit approval; but still there are the figures to show that ventilation is only a secondary condition. More deaths take place in the Necker, Beaujon, and Lariboisière, which are ventilated, than in the Hôtel-Dieu and Charité, which are not.

"We now proceed to enter upon the capital questions which relate to nosocomial *encombrement*. If all which regards the buildings themselves has but a limited operation and very secondary influence, this is not the case with the assembling together of a great number of patients suffering under certain diseases. It is not the hospital which should be first put on its trial, but the patients who are admitted into it. There are certain diseases for which hospital overcrowding is, so to say, indifferent; others in which this is moderately injurious; and still others in which it is *excessively dangerous*. It is in observing this distinction that the great and useful questions relating to nosocomial *encombrement* may be dealt with; and the pursuit of this fertile theme has been my constant endeavour for a long period, in the hope of enlightening practitioners and public opinion on these distinctions.

"1. There are, then, certain diseases for which nosocomial *encombrement*, as it exists in hospitals suitably ventilated, and containing only the normal number of inhabitants, presents no inconveniences, or these are so slight as to be well compensated by real advantages. In the first line we find inflammatory diseases, such as articular rheumatism, bronchitis, pleurisy, pneumonia; intoxications, including malarial diseases, many forms of ophthalmia, most of the diseases of the genito-urinary apparatus, and of the encephalon; diseases of the skin, and contagious diseases which are only transmissible by contact or inoculation, such as venereal affections. To these we may add, without fear of error, tubercular affections. The distinction here insisted on is of importance in two points of view. First, a sojourn in a hospital is attended with no hygienic inconvenience either for these patients or for their neighbours in the wards; and secondly, the placing a limited number of patients, who will not bear overcrowding, in the midst of this first category, considerably diminishes the danger of special *encombrement*. Placing a lying-in woman in a ward with women suffering from intermittent fever, diseases of the skin, etc., does no harm to her or to the other patients. This is what I call *dispersion* in occupied wards.

"2. There are diseases upon which nosocomial *encombrement* exercises indubitable ill effects, but these are less considerable than might *à priori* be expected. These diseases M. Bouchardat designates as contagious diseases, dependent upon a permanently diffused miasm—viz., variola, scarlatina, measles, and typhoid fever. In adult hospitals, scarlatina and measles undergo but slight propagation, and the same may be said of variola, most of the patients having had the disease or been vaccinated. Typhoid fever, under ordinary circumstances, is little susceptible of propagation; but it may assume a truly epidemic character when, as during the late siege, large numbers of young, unacclimatised persons are cooped up together. Contagious diseases, which only appear at long intervals, are more to be feared in relation to *encombrement* than those just adverted to, appearing as they do amidst populations which have not been subjected to the influence of these specific miasmata. These different diseases, however, vary much as regards this danger. Thus, the mischievous effects of Asiatic cholera in this respect are not very evident, for a considerable number of cases may be accumulated in the wards of a hospital without the other patients seeming to suffer therefrom. Still, some care is required here, for patients in a destitute condition, remaining in hospitals more from poverty than for any well-marked disease—true specimens of *physiological misery*—suffer cruelly from cholera when well-marked cases are brought into their midst. The instinct of danger leads all of these who can to leave the hospital. Danger is probably greater in yellow fever than in cholera, and it is undoubtedly so in typhus, as is shown by the great mortality affecting all attendants on the sick."

(*To be continued.*)

FROM ABROAD.

Accidental Poisoning in France.

However defective some of the French legal procedures may seem as regards the mode of investigation of criminal offences and the nature of the testimony receivable, they are often more decisive and more just in determining the amount and distributing the incidence of punishment for proved offences than is the case among ourselves. If some of the railway accidents which have afflicted this country had occurred in France, directors of companies and managers of lines would certainly have been made to taste the severity of the law as well as, or even more so than, overworked *employés;* and cases of careless or accidental poisoning are not there passed over with a censure from a coroner's jury. In this point of view we may notice a case of poisoning that has recently come before the Court of Appeal at Nancy. In July, 1872, a M. Tosecq, hardware merchant, of Verdun, forty years of age, having a slight inflammation of the foot, called in a doctor, who prescribed some sulpho-vinate of soda as a purgative. No sooner had he taken what was sent him than he was seized with violent pains, and he died the same evening. It was found that, in place of the innocuous sulpho-vinate, the acetate of barytes, a most violent poison, had been administered. This had been furnished by a *pharmacien* of Verdun, who had obtained it from M. Casthelay, a manufacturer of chemical products on a large scale at Paris. On investigation it was found that the preparation had been supplied by a M. Coueffin, who had sent to Paris from one of Casthelay's manufactories, of which he was manager, two bottles, the one containing sulpho-vinate of soda, and the other acetate of barytes, and had made a mistake in labelling them. The *pharmacien* at Verdun had not verified the substance which he had received, and, nothing doubting, had sent a portion of it to the patient. He, Casthelay, and Coueffin were summoned before the Tribunal of Correctional Police at Verdun, on the charge of "homicide by imprudence," and were all fined. The widow also brought an action against the three defendants for the damage she and her daughter had sustained by the loss of their relative. The Civil Tribunal of Verdun awarded 8000 francs damages—1500 for the widow, and 6500 for the daughter. But this indemnity being considered as utterly insufficient, an appeal was made to the Court of Nancy, which increased the damages to the sum of 21,000 francs—7000 for the widow, and 14,000 to be put out at interest for the daughter until her majority or her marriage. The defendants were also condemned each to pay their share of the interest on the sums awarded from the date of the commencement of the first trial, and the expenses of the action and of the subsequent appeal. Of the 21,000 francs damages awarded, Casthelay and Coueffin had each to pay 9000 francs, and the *pharmacien* 3000 francs.

Professor Zeissl on the Treatment of Constitutional Syphilis.

In a paper contained in the *Wiener Med. Wock.* for November 15, on the "Treatment of Syphilis and some of its Local Manifestations," Professor Zeissl, of the Vienna General Hospital, offers some remarks upon some much-debated points. Since, he observes, there is such difference of opinion as to the relative advantages of iodine and mercury in the treatment of constitutional syphilis, while some believe expectant treatment, with suitable regimen, alone is required, it would be

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very desirable to examine the subject at the bedside in patients who have as yet undergone no anti-syphilitic treatment. This is, however, attended with considerable difficulty, whether in hospital or private practice. So strong a hold has the mercurial treatment obtained, both of the lay and the medical public, that on any sign being made of avoiding to put it into force there is the danger of being accused of the mere love of novelty, or of allowing the disease to make dangerous progress when it might have been speedily arrested. When the warmest anti-mercurialists must allow that in most cases there is no substance will produce so rapid an improvement in the diseased appearances as mercury does in syphilis, it is not surprising that the patient gets tired of treatment by expectation when perhaps he perceives no change in his condition for weeks, and contrasts this with that of some friend who, by means of mercurial frictions continued for a fortnight, has almost got rid of his cutaneous eruption. The same contrasts are observed in hospitals where different surgeons have cases of syphilis under their charge.

In spite of these difficulties, Professor Zeissl, having in private practice for some years succeeded in treating several patients without mercury, resolved to try the expectant and the iodine treatment in some of the cases in his division of the hospital. Of these he specifies two cases in which mere expectation was resorted to, the regimen and diet being carefully attended to, and the patients' attention being diverted by frictions with yellow ointment or cod-liver oil. These frictions were continued during forty-five days without making the slightest impression on a papular eruption. For these were substituted, therefore, twenty grains per diem of the iodide of potassium; but as at the end of a week no improvement had occurred, and the patients wished to leave the hospital, mild mercurial frictions were resorted to. So rapidly did this improve matters, that in about ten days the patients were dismissed cured. Nearly a twelvemonth has elapsed, and in neither of them has any relapse occurred.

These and some similar cases convinced Professor Zeissl that expectant treatment was not suitable for the treatment of syphilides in hospital practice. He resolved to try iodine, and as the iodide was very dear he substituted the tincture of iodine, prescribing half a drachm to six ounces of water, and giving a tablespoonful night and morning. Most affections of the skin and mucous membranes, and changes in other textures consequent on syphilis, yielded to this treatment in from fourteen to forty-eight or fifty days. The pustular form offered most resistance, requiring mild doses of Zittmann's decoction. In severe iritis also mercurial frictions were employed in combination with the use of atropine.

From the various trials made, the conclusions arrived at were that preparations of iodine, under a suitable regimen, will disperse the early manifestations of syphilis, or so abate these that a small number of mercurial frictions complete the cure, which, not being followed by relapse, must be regarded as definitive. An early mercurial treatment will remove the initial symptoms more rapidly than iodine, but the consecutive symptoms quickly yield to iodine. Affections of the mucous membrane of the mouth and pharynx yield much more rapidly to iodine than to mercury, requiring at most sometimes slight cauterisation. Syphilis is always found more obstinate in yielding in pregnant women, especially when it is contracted at the time of impregnation; and the consecutive symptoms are usually only completely cured after the uterus has discharged its contents. The iodine has therefore always to be continued after delivery, and in some cases has to be supplemented by a few frictions. It is remarkable that the iodine-acne and coryza are of infinitely less frequent occurrence under the use of the tincture of iodine than under that of iodide of potassium.

Iodoform is of great utility as a local application in torpid syphilitic ulcers (especially in indolent bubo), hastening the cicatrisation of these when this had not been accomplished or was too long delayed under the use of nitrate of silver. Given internally (in doses of two or three grains daily, made into pills, with extract of gentian or quassia), the iodoform is also very useful in syphilitic neuralgia.

The two most dangerous enemies which have to be contended with in the treatment of syphilitic patients in the Vienna Hospital are scorbutus and hospital gangrene, evidently due to the bad air of the Hospital and to the employment of the various utensils in common. Notwithstanding every precaution and the resort to the various disinfectants, the progress of hospital gangrene can be arrested only with the greatest difficulty. On closer examination of the patients attacked with it, they are usually found to be the subjects of pulmonary tubercle either of long standing or so rapidly developed as to threaten life. The actual cautery is little employed for this gangrene, as it usually proves of no avail, and much more benefit accrues from keeping the patient in a permanent bath. Not only is the propagation of the disease prevented by this isolation, but after from six to eight days of employment of the bath the sloughs separate and healthy granulations spring up. The transport of the patient into a purer atmosphere was attended in many cases with remarkable benefit.

M. Brouardel on Erysipelas of the Pharynx.

M. Brouardel recently delivered, at the Charité, a clinical lecture on "Erysipelas of the Pharynx" (reported in the *Gaz. des Hôp.*, January 13 and 15), of which the following is a brief abstract:—

The subject of it was a man, aged 47, and in him the course of the disease was somewhat peculiar. He was admitted for erysipelas of the left side of the face. About a fortnight before he had been seized with shivering, which was followed by fever and nocturnal delirium, and erysipelas of the right side of the throat. This, in a day or two, occupied also all the right side of the face, to which it was confined. In a week this had run its course, leaving only a little swelling of the submaxillary glands. Three days after his recovery he had shivering again, which was this time followed by erysipelas of the left side of the face. He was admitted while this was in full evolution, desquamation—consequent on the former attack—occupying the right side of the face. The pharynx was found much inflamed, especially on the left side, several phlyctenæ being present. Very little fever attended this second outbreak.

Erysipelas of the pharynx, like that of other regions, commences with fever, which is soon attended by bilious vomiting. The earliest local symptom is enlargement of the glands, producing tumefaction at the angle of the jaw; and when this is not visible, the state of the glands should always be examined by palpation. Chomel attached great importance to this, insisting that sudden swelling of the glands, with shivering and vomiting, enables us at once to announce an impending erysipelas, although forty-eight hours may elapse prior to its manifestation. He was of opinion that such tumefaction of the glands actually precedes the erysipelas, while, according to Velpeau—with whom M. Brouardel is disposed to agree,—this is only the sign of an erysipelas of the nasal membrane, which exists two or three days prior to its external manifestation. However this may be, this local sign is the first to announce erysipelas of the pharynx. Coryza and epistaxis are other signs; and whether or not Biett's views be always correct (as they are in the great bulk of cases), that ulceration always constitutes the point of departure of erysipelas, certain it is that in children, and especially such as are lymphatic, nothing is more common than scrofulous eczema of the nasal mucous membrane—which is the source of the erysipelatous attacks, which in them affect the face and pharynx. In children, also, erysipelas is announced by abundant epistaxis, which, however, is very rarely the case in the adult.

These phenomena may continue from twenty-four to thirty-six or even forty-eight hours, before the examination of the face or throat leads to the recognition of the nature of the affection. The fever commences suddenly, and often with a shivering, the importance of which is well known to surgeons. The pulse rises to from 100 to 140, and the axillary temperature sometimes attains in less than twelve hours 40° C. But this is not maintained, for it is lowered in the morning, and from the second day by one or two degrees. The fever, therefore, is not continuous—an important point in distinguishing erysipelas of the pharynx from the angina of scarlatina. When the erysipelas is not invading, being limited to the parts primarily occupied, the temperature sinks suddenly about the sixth day, falling perhaps from 39° to 36° C. In these cases delirium is sometimes present, and M. Brouardel cautioned his auditory concerning the non-febrile form which this may sometimes assume, rendering it liable to be confounded with acute mania. He relates an instructive case in which a patient, suffering under this form of delirium in simple catarrhal angina, was consigned to a lunatic asylum, under the idea that he was labouring under *délire de persécution*. Sometimes patients suffering from erysipelas of the pharynx are plunged into an extremely dangerous adynamic condition.

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The local signs of erysipelas of the pharynx, before it has invaded the face, are of importance as relates to diagnosis. The redness is of a purple hue, the surface of the pharynx being shining as if covered by a varnish. The whole or only part of the pharynx may be invaded, and there is no line of demarcation as in erysipelas of the skin. The tonsils are red, but not swollen or projecting. Exploration is often rendered difficult by the thick adherent muco-pus, the swelling of the tongue, and the painful enlargement of the submaxillary glands. In some cases phlyctenæ are developed, which are globular in form, containing serous or sero-sanguinolent liquid. These are especially found on the pillars of the velum and the uvula. They burst in about twenty-four hours, the collapsed epithelium having very much the appearance of false membrane, which, if removed, is reproduced during several days.

The *diagnosis* of the erysipelas before it appears on the face may be difficult, and an error is of importance to the patient and for the reputation of his attendant. The angina of *scarlatina* at first bears some resemblance to it, the temperature rising in both to 39° or 40° C. in some hours, and the submaxillary glands are sometimes swollen. So, too, the redness may be confined to part of the velum or to the uvula. But in scarlatina the mouth as well as the pharynx may be invaded, the inside of the cheeks being of as bright red as the pharynx, while there is not the burning pain and difficulty in swallowing observed in erysipelas. The temperature, too, which in scarlatina remains high without remission, in erysipelas undergoes remissions. The pultaceous eruptions of scalatina also cannot be confounded with the epithelial pellicles of erysipelas. In *catarrhal angina* there is less burning pain, the colour is less vivid and unvarnished, and there is no glandular swelling. The temperature never becomes so high as in erysipelas. In *inflammatory and phlegmonous angina* the tonsils, which are the chief seat of the affection, are swollen—and sometimes enormously so,—while the submaxillary glands are usually but very little tumefied. *Herpetic angina*, if not seen early, may be confounded with erysipelas; but the lesions of the epithelium, which may be observed, remain limited and unaccompanied by the vivid redness of erysipelas, and the fever that accompanies them soon subsides.

The *prognosis* of erysipelas commencing in the pharynx and invading the skin only secondarily is usually favourable; but it may prove dangerous when it spreads towards the mucous membranes lining the larynx or ear, inducing œdema of the larynx, or otitis and its consequences. Peter has published a case of capillary bronchitis consecutive to erysipelas of the pharynx, and both Trousseau and Guéneau de Mussy admit the existence of an erysipelatous pneumonia. It is remarkable, when we remember the frequency of subcutaneous abscess during the progress of erysipelas, that there is no example recorded of retro-pharyngeal abscess following erysipelas of the pharynx, and that notwithstanding the facility with which, in children, phlegmonous inflammation invades the retro-pharyngeal cellular tissue. An important point to be considered in the prognosis is the locality where the patient acquired the erysipelas, and the state of health he was in at the time. It is well known that erysipelas which arises in wards in which puerperal fever or purulent infection prevails is far more dangerous than that which is produced away from hospitals or infectious patients; and secondary erysipelas occurring in patients who are the subjects of other diseases, as typhoid fever, variola, etc., implies a very unfavourable prognosis. In such cases it is that gangrene of the laryngeal membrane, with delirium and fatal adynamia, are met with. The successive attacks of erysipelas which occur in scrofulous infants are never attended with danger. When, therefore, erysipelas has arisen independently of any source of infection, and does not spread below the lower part of the pharynx, the progress is favourable—that is, providing no debilitating treatment, such as local bleeding and purgatives, be resorted to. Trousseau's expectant treatment was almost invariably successful, consisting at most in the administration of an enema or a dose of castor oil, keeping the patient in bed, not only during the acute stage, but during convalescence, for fear of relapse, and feeding him, even though fever or delirium might be present. Guillot also administered *vin de Bagnols* abundantly; and Jaccoud gives cinchona wine with the best results.

In the week ending the 23rd inst., 897 deaths were returned in Paris. The annual death-rate was equal to 26 per 1000.

THE WEBB FUND.

The following sums have been received by Mr. Augustus Churchill, the Treasurer, in addition to those announced in our last week's issue:—

	£	s.	d.
Dr. Parkes	5	0	0
Mr. J. Chatto	2	2	0
Dr. P. Frank	5	5	0
Dr. G. Harley	3	3	0
Mr. Kiallmark	1	1	0
Mr. W. Pretty	1	1	0
Mr. H. P. Roberts ...	10	10	0
Dr. Dow	1	1	0
Mr. John Cross	10	10	0
Mr. John Simon	5	0	0
Dr. T. B. Peacock... ...	10	0	0
Mr. Thomas Smith ...	5	5	0
Mr. Morrant Baker ...	2	2	0
Mr. H. S. Giffard, Q.C. ...	5	5	0
Mr. C. O. Humphreys ...	5	5	0
Mr. Daniel Morgan ...	1	1	0
Dr. Marcet, Nice	3	3	0
Dr. Buzzard	2	2	0
Dr. J. W. Moore	0	10	6
Mr. Allingham	3	3	0
Dr. Clapton...	3	3	0
Professor Laycock... ...	2	2	0
Editor of *Students' Journal*	1	1	0
Proprietors of *Medical Times and Gazette*	50	0	0
Mr. Toulmin	3	3	0
Mr. Le Gros Clark ...	3	3	0
Mrs. Druitt (sen.)... ...	3	3	0
Miss Druitt	2	2	0
Dr. Gavin Milroy	2	0	0
Mrs. Price	2	2	0
Dr. David S. Price ...	3	3	0
C. T. 69	3	3	0
Dr. W. H. Day	2	2	0
Messrs. Worthington and Sons	5	0	0
Mr. William Adams ...	5	5	0
Dr. Coates	5	5	0
Mr. P. Hambro	10	10	0
Mr. Charles Bowman ...	10	0	0
Mr. William Bowman ...	2	0	0
Mr. T. Craddock Watson	1	0	0
Miss Watson	1	0	0
Mr. W. S. Watson ...	2	2	0
Dr. Cholmeley	20	0	0
Dr. Maurice Davies ...	3	3	0
Mr. T. Carr Jackson ...	5	5	0
Sir W. Baynes, Bart. ...	2	0	0
G. B....	1	1	0
Mr. Robert Loder	5	0	0
Mr. E. L. Cox	5	0	0
Mr. Richard Twining ...	5	5	0
Mr. S. H. Twining ...	5	5	0
C. H....	1	0	0
J. C.	0	10	0
Mr. W. W. Richardson ...	2	0	0
Mr. F. Banbury	5	5	0
Messrs. Sanderson and Co.	5	5	0
Messrs. B. F. Babcock and Co....	5	0	0
Mr. J. R. Reeves	5	5	0
Messrs. Chalmers, Guthrie, and Co.	5	0	0
A Friend	1	1	0
Mr. Osgood Field	2	2	0
Mr. Thomas Angell ...	1	1	0
Captain Poole	1	1	0
R. T.	3	3	0
Mr. Robert Crawshay ...	5	0	0
Mr. Arthur Soames ...	5	5	0
Messrs. Alexander, Cunliffe, and Co.	5	0	0
Mr. Russell Sturgis ...	5	0	0
Mr. W. Banting	2	2	0
Mr. F. A. Shröeter ...	5	5	0
Messrs. Oliverson, Aukland, and Co.	2	2	0
Mr. G. E. Scaramanga ...	5	0	0
A Friend	1	1	0
Mr. J. S. Morgan	5	0	0
Messrs. Morton, Rose, and Co....	5	5	0
Mr. C. C. Gooch	2	2	0
W. W.	2	2	0
The Proprietors of the *Lancet*	25	0	0
	369	14	6
Amount previously acknowledged 431	5	0	
Total	£800	19	6

GENERAL CORRESPONDENCE.

DR. SYMES THOMPSON AND THE GREAT NORTHERN RAILWAY.

LETTER FROM DR. E. SYMES THOMPSON.

[To the Editor of the Medical Times and Gazette.]

SIR,—I feel that an explanation of the circumstances under which I appeared last week at the Clerkenwell Police-court is due to my professional brethren. I therefore forward a statement which I addressed to the President and Council of the Royal Medical and Chirurgical Society. I have also the pleasure of enclosing a resolution which the Council unanimously adopted, and I confidently trust that the profession in general will receive the explanation in the same generous spirit as was shown at the meeting of the Royal Medical and Chirurgical Society on Tuesday last.

I am, &c., E. SYMES THOMPSON.

3, Upper George-street, W., January 28.

"To the President and Council of the Royal Medical and Chirurgical Society of London.

"Mr. President and Gentlemen,—As honorary secretary of the Royal Medical and Chirurgical Society, I feel called upon to make a statement with reference to a charge made against me of travelling on the Great Northern Railway without having previously paid my fare, and with intent to defraud the company; the result of which has been reported in the daily papers.

"On the morning of December 26, my wife being ill, and being very much hurried, I reached the Potter's Bar Station too late to take a ticket or speak to the guard. I at once determined, as I was coming back in the evening, to take my return ticket at King's-cross, having failed to do so at Potter's Bar.

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"When the train stopped at Holloway I had to change carriages, and, passing a ticket-office, I took a ticket to King's-cross, solely with the purpose of avoiding delay and explanation, and believing that I was too well known on the line to be accused of wishing to avoid the payment of my full fare.

"The ticket-collector, before whose eyes I had deliberately left the train and taken the ticket, demanded my ticket for the former part of the journey. I then for the first time realised that I had placed myself in a false position. I stated that I had not a ticket, but was intending to obtain one on my return in the evening. On his objecting, I offered to pay my fare from Potter's Bar; this he would not receive, so I gave him my name and address. At King's-cross I took a return ticket, as I had from the first intended to do; used half that evening, and sent the other half (Potter's Bar to London) to the head ticket-collector at Holloway, with a note apologising for having laid myself open to misconstruction. I then considered the matter at an end, but on January 16 I received a summons to attend the Clerkenwell Police-court on January 22, and the case was then brought before the magistrate.

"My solicitor advised me to leave the case in his hands, without any explanation on my part. He did not explain my motives, nor did he enter into details. I felt at the time that my defence was very imperfect. He did not say (as stated in some of the papers) that I pleaded guilty. He admitted the facts as stated by the ticket-collector to be true, acknowledged that there had been an infringement of the company's by-laws, and that of course, if insisted on, a fine must be paid.

"I admit that the facts were capable of the rendering placed upon them, and I do not complain of the action of the railway company or of the magistrate, though it is perhaps remarkable that the directors should have imagined that I wished to defraud them of one shilling.

"While acknowledging that I have been guilty of great error of judgment, I feel confident that those who know me will not allow a single act of folly to outweigh in their minds the evidence of my whole past life, or that a moment's thoughtlessness should be interpreted into a case of moral guilt.

"I do not wish to resign my secretaryship, as I know I am not morally guilty, but I desire to be guided by the decision of the Council, and to place my resignation in their hands.

"I have the honour to be,
"Mr. President and Gentlemen,
"Your faithful servant,
"E. Symes Thompson, Hon. Sec.

"3, Upper George-street, January 27, 1874."

The Council, having read a communication from Dr. Symes Thompson, resolve—"That, in their opinion, the probity of his character, and the high esteem in which he is held by the profession, fully warrant them in coming to the conclusion, and in expressing their firm conviction, that he acted entirely from inadvertence in the haste of the journey, and that there is no ground for imputing to him an intention to defraud the railway company."

*** The above letter from Dr. Symes Thompson contains a clear and candid explanation of the circumstances which led to his travelling, one day last month, on the Great Northern Railway without previously paying his fare, and to his falling under the suspicion of having intended to defraud the company. The profession will justly appreciate Dr. Thompson's spirit in thus coming forward to tell them exactly what occurred, and to confess to them that he acted in the matter with some precipitancy and want of sound judgment; though he might, in reliance on his known character and reputation, have felt sure that none of his brethren could believe him guilty of the charge of fraudulent intention. Any medical man may have to snatch a train in order to keep an appointment; and then, for the sake of avoiding explanations that would consume time and cause delay, one may be led to acts of commission or omission which, in cooler and more collected moments, one would at once recognise as open to misinterpretation. This is just what happened with Dr. Thompson. He thought to avoid detention and delay at King's-cross, and to pay the railway company his journey by the short and simple method of taking in the evening a return-ticket for Potter's Bar, only one-half of which he could use. He acted very thoughtlessly, very foolishly, and he has been severely punished; but as to his having had any thought of defrauding the company, the idea cannot be entertained for a moment. It would be ridiculous to believe that any man of his character and position could, on a line upon which he is well known, and from a station close to which his wife's family lives, attempt such a mean and paltry fraud. The profession know Dr. Thompson, and could believe such a thing of him only on the *quia impossibile est* principle; and he will, we are sure, have their warm sympathy under the very disagreeable consequences that a few moments' want of consideration have brought upon him.—Ed.

THE CAUSATION OF DICROTISM OF THE PULSE.

Letter from Mr. F. A. Mahomed.

[To the Editor of the Medical Times and Gazette.]

Sir,—A letter from Dr. Galabin appears in the *Medical Times and Gazette* of January 3, containing many errors that I think should be pointed out.

While Dr. Galabin rightly insists on the quality of *distensibility* combined with *elasticity*, as occurring in the arterial wall, he appears to use these terms synonymously in some sentences, and therefore incorrectly. For instance, one sentence in his letter runs thus:—"But the point is to determine in what manner *distensibility* comes into play in the causation of dicrotism." (The italics are my own.) I believe Dr. Galabin would himself allow the substitution of *elasticity* for *distensibility*. It is true the vessel must be distensible as well as elastic; but, practically speaking, in the matter under discussion, we may regard a material which is non-distensible as non-elastic, though the converse does not hold good; for a non-elastic material is not necessarily non-distensible, or, in other words, a distensible material is not necessarily elastic. In this way we must practically regard glass as non-elastic, for under the ordinary conditions in which we use it as tubing, its rigidity effectually prevents its elasticity coming into play.

Again, in the same paragraph, Dr. Galabin makes the following extraordinary assertion. Speaking of elastic distensibility, he says:—"Indeed, if the arterial walls had not this quality, the great expansive wave itself would not occur, and it might truly be called a cause, not only of the dicrotic, but of the primary pulse-wave." This statement is directly opposed to the facts of the case. The experiment of sending water in an intermitting flow by compressing an elastic bag through two systems of tubing—one elastic, the other non-elastic—is well known. The results obtained are familiar to all. The water emerges from the non-elastic tubing as it entered it—namely, by a series of jets; in other words, by a series of tidal waves, the flow being intermittent. This occurs as well with leather tubing, in which the movement is visible, as with glass. Though this tubing is not rigid, it is nevertheless not distensible. On the other hand, from the elastic tubing the flow is continuous, but pulsatile, a series of tidal waves occurring from increase of pressure at each contraction; and if the contractions are sufficiently forcible, a dicrotic wave is also produced. Moreover, it has been shown that these tidal waves are decreased by the elasticity of the tubing—for the longer the tubing, the smaller and less abrupt the waves become; and if the length be sufficient, the flow becomes equable, and the waves entirely disappear.

The elasticity of the vessels, therefore, instead of being "a cause" of the tidal wave, actually hinders, and tends ultimately to render it imperceptible; while clinically we find that degenerate and non-elastic arteries prevent the development of the dicrotic, though they do not interfere with the tidal wave.

The experiment performed by Professor Marey, and quoted by Dr. Galabin, showing the increase of dicrotism with the increase of the inertia of the fluid used, the other conditions remaining the same, strongly confirms the view expressed in my last letter, that it is the acquired velocity and inertia of the blood, rather than that of the arterial wall, which causes an over-distension of the aorta, and thus permits that elastic recoil which produces the dicrotic wave.

Dr. Galabin, in the letter under discussion, further remarks—"Since the motion of the fluid and of the tube can only take place as a whole, it involves at the same time the effect of the inertia of the whole fluid"; while in his letter published on December 6 he says, speaking of the arterial walls—"Owing

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to acquired velocity, their expansion is carried beyond that point at which the tension of the tube would be in equilibrium with the pressure within"; and in his paper in the *Journal of Anatomy and Physiology*, as I pointed out in my previous letter, he particularly denies that the inertia of the blood produces any effect laterally on the walls of the aorta, except in a degree "too minute to have any appreciable effect." I apprehend that Dr. Galabin will find some difficulty in reconciling these thoroughly contradictory statements.

In summing up the causes of dicrotism, Dr. Galabin enumerates them thus:—First, a "to-and-fro oscillation of the fluid near to the aortic valves": this, he says, "depends directly upon the inertia of the fluid." Secondly, the inertia of the arterial wall." Thirdly, "the acquired *lateral* velocity of the fluid."

The first of these reasons he himself asserts to be insufficient, and quotes experiments proving it to be so. The second, which he formerly considered the chief, he now admits as "fairly open to question whether it forms a part of the dicrotic wave, or whether it is too minute to be appreciable." The third, as pointed out above, he considers "too minute to have any appreciable effect." Dr. Galabin's readers have still to learn, therefore, what he considers the true cause of dicrotism.

Apologising for so great an invasion of your valuable space,

I am, &c., F. A. Mahomed.

London Fever Hospital, January 10.

IS MERCURY A TRUE VITAL ANTIDOTE AGAINST THE SYPHILITIC VIRUS?

Letter from Mr. R. Clement Lucas.

[To the Editor of the Medical Times and Gazette.]

Sir,—In Mr. Hutchinson's eloquent paper so strongly advocating the use of mercury in syphilis, there is to be found the following statement:—"Mercury is probably a true vital antidote against the syphilitic virus." The author left no obscurity as to the meaning he intended to convey by the word "antidote," for in another part he explains that he meant "something which not merely concealed, but which counteracted and neutralised." In support of his opinion he argued that mercury, internally administered, checked and caused the resolution of the Hunterian chancre; that it caused the secondary symptoms, when developed, to recede; that, if given before the appearance of secondary symptoms, there is "a fair amount of hope that it will prevent their occurrence"; that the drug invariably produces some effect. It is probable that the experience of most surgeons will support the majority of statements concerning the effects of mercury here adduced in proof of its antidotal efficacy. That it cures the chancre, and causes the symptoms to recede, few will doubt; but that it may entirely prevent the evolution of syphilis will be received with scepticism by many, since such cases are admitted to be infrequent; and there is a great fallacy underlying such observations—viz., that the chancre, in spite of induration, might not have been a constitutional one. But, supposing all these statements to have been proved, does it necessarily follow that mercury is a drug which destroys the poison of syphilis? I think not; for the recession of symptoms and resolution of the chancre may be better explained on the assumption that mercury removes the effects produced by the poison, and the non-evolution of symptoms may be due to those products being removed before sufficiently developed to attract attention. On the other hand, much could be said against the theory that mercury acts as a true antidote in syphilis; for why is not the poison destroyed at the time when we have proof of the complete circulation and remote action of the remedy in the rapid melting away of the chancre? Again, in most known antidotes the remedy bears some definite relation to the poison it modifies, or at least, if added in quantity to the virus, may be expected completely to destroy it; but in syphilis the continuous administration of mercury for months fails to destroy the poison, so that some consider it desirable to continue the drug for two years after infection; and the author of the paper stated that he thought the administration of the remedy for one year might be necessary to obtain security against relapse. During all this time the remedy circulates through the tissues containing the poison, yet fails to eradicate it, so that on omitting the remedy the symptoms again appear. Surely the facts are far more consistent with the hypothesis that mercury attacks only the effects of the syphilitic virus, which in time exhausts itself upon the tissues—that, in fact, the action of the drug is to disencumber the tissues of the products of a specific inflammation, and in this way to bring about an apparent and perhaps permanent cure.

I am, &c., R. Clement Lucas, M.B., F.R.C.S.

4, St. Thomas's-street, S.E., January 28.

DEMANDS OF POOR-LAW MEDICAL OFFICERS.

Letter from Dr. Joseph Rogers.

[To the Editor of the Medical Times and Gazette.]

Sir,—It is now several months ago since, through your columns, I addressed my Poor-law medical brethren on the subject of reform in that branch of Poor-law administration. I have been silent, as the conviction has been forced upon me by the proceedings in St. Stephen's during the past two years, and notably in the last session, that nothing in the shape of useful legislation was to be expected from the Parliament which has just come to an untimely end, and therefore considered it was not worth while to waste time and energy in what would have been profitless agitation.

It was, however, my intention, at an early date, to have convened a general meeting of the Association, for the purpose of arranging a concerted scheme of action at the general election, which was known to be imminent. The unexpected manner in which Mr. Gladstone has decreed a dissolution has deprived me of that opportunity. I have, therefore, no alternative but to ask you to permit me to remind the Poor-law Medical Service that there are three objects of the Association which have been repeatedly endorsed at our quarterly and general meetings, the advisability of supporting which should be pressed on the attention of candidates, and particularly on the candidates for counties.

These are—first, the entire, instead of partial, payment of salaries from the Consolidated Fund; secondly, an amendment of the Superannuation Act, rendering it absolute on the part of boards of guardians, and that the amount should be determined prior to the officer tendering his resignation; thirdly, the extension to the rural districts of the dispensary system, which has been found to work so advantageously for the poor and the profession in the metropolis. If this is to be done effectively, it can only be by each Poor-law medical officer writing to the candidate for the representation of his borough or county *immediately* on reading this. I am, &c.,

33, Dean-street, Soho, January 28. Joseph Rogers.

REPORTS OF SOCIETIES.

OBSTETRICAL SOCIETY OF LONDON.

Wednesday, January 7.

E. J. Tilt, M.D., President, in the Chair.

James E. Gibson, M.R.C.S. (Cowes), Thomas Rowan, L.R.C.P. Edin. (Melbourne), and Thomas Underhill, M.D. (West Bromwich), were elected Fellows of the Society.

Dr. Aveling exhibited a Clitoris symmetrically Hypertrophied, which he removed from a patient, aged 27, in the Chelsea Hospital for Women. It measured two inches and one-eighth in length, and the circumference of the glans was one inch and three-quarters. So much irritation was caused even by the dress of the patient touching it, that her life was rendered miserable.

Dr. Wiltshire inquired if there was any history of syphilis. He had removed the organ in a case of great hypertrophy from that disease. It was as large as a small cocoanut, and weighed a pound and a quarter. The surface presented a tuberculated aspect like elephantiasis.

Dr. Savage thought such cases should be called elephantiasis.

Dr. Cleveland exhibited a five months Fœtus that presented the peculiarity of intense Congestion amounting to dark-blueness of the head and neck. The mother was a multipara with large pelvis, and there was no evidence of pressure. There was no mark of decomposition, and she thought she had felt movement only a few hours before expulsion. On removing the scalp there was found general diffused ecchymosis on the cranial surface, but no effusion or abnormal appearance of the brain.

Dr. Heywood Smith exhibited a Fœtus and Double Placenta,

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presenting the following characteristics:—The fœtus was of about three months' growth, flattened, and curved laterally; the convex side had been pressed against the concave walls of the uterus, and the concavity formed by pressure from the growth of another fœtus which grew to maturity. The lower extremities flexed upon the abdomen had produced absorption of its contents. The placenta (that of ordinary twin pregnancy) presented the following features:—One part was fully developed; the line of demarcation was plain; and the other portion, about a fifth or sixth of the whole mass, was atrophied, consolidated, and flattened, thinned out towards its free margin, and curved to accommodate it to the pressure of the living child. The mother had had thirteen previous pregnancies, of which four had been abortions. She passed the flattened fœtus about 8 a.m., and continued to be about in her room; and at 12.50 p.m. on the same day was delivered of a living male child.

Dr. Edis read a paper, "On the Necessity for Caution in the Employment of Intra-uterine Stems." He brought forward some cases at Dr. Routh's suggestion, the object being not to advocate the entire disuse of such means, but rather to impress forcibly the desirability of extreme caution in their use, and further to prolong discussion on what some look upon as a necessary method of treatment. Dr. Edis urged preliminary treatment and supervision of patients wearing stems. Dilatation by means of graduated bougies he found to answer the purpose in the majority of cases. Notes of several cases were given, illustrating the danger of intra-uterine stems.

Dr. Savage said if any precautions could insure against the evils so often following the employment of intra-uterine stems, those insisted on in Dr. Routh's paper ought to prove effective; but would the clinical history of cases so treated warrant this conclusion? Uterine tolerance was a very capricious affair. The art of bringing the uterus into a condition insuring immunity when subjected to treatment of this sort he feared had yet to be acquired. Until prolonged experience had tested Dr. Routh's position, no pains should be spared to impress on the minds of those proposing to enter on this line of treatment the uncertainty of morbid uterine reactions. A patient wearing an intra-uterine stem, pessary, or tent should never be long out of view. Remarkable variations in regard of uterine tolerance were exhibited by cases wherein no apparent special dissimilarity could account for them. Dr. Savage mentioned illustrative cases. Seven fatal cases had been brought under his notice. He thought the experience of others would furnish similar results. When these machines could be tolerated, there was no denying they afforded much comfort; but they might be tolerated for a long or short time, and then suddenly severe pelvic mischief might supervene. In such cases, under a mistaken impression, stems of different kinds have been substituted, only to aggravate the symptoms and add new troubles. Dr. Edis's cases went far to justify his observations. Certain anomalies of conformation defied all kinds of stem or other treatment. Stems of whatever kind should never be used without frequent watching, as they were always attended with risk. In reply to Dr. Savage, Dr. Routh admitted that he had seen evil results from the use of sea-tangle before he prepared such stems in disinfectants.

Mr. Scott, in corroboration of Dr. Savage's remarks, considered one of the dangers incidental to the use of intra-uterine stems was that in some cases they were worn with impunity forseveral weeks, when suddenly, from some cause—frequently so slight as to have escaped observation,—metro-peritonitis or cellulitis sets in, thereby endangering the life of the patient.

Dr. Bantock regretted he had not heard Dr. Routh's paper, and had only heard the concluding sentences of Dr. Edis's paper. He gathered that Dr. Edis objected to the use of stems without preparatory treatment. To a certain extent he agreed with this, and would not employ a stem in acute congestion of the uterus. He gave the particulars of a case in which he had used a stem with benefit. He objected to the use of a stem immediately after division of the cervix. He was in the habit of passing his stem in the out-patient department of the Samaritan Hospital, but in no case as yet had he seen untoward results.

Dr. Heywood Smith wished again, as at the former discussion, to urge strongly the advisability of local depletion of the uterus before proceeding to the introduction of any intra-uterine stem. With regard to dilatation of the cervical canal, it was easy to dilate the cervix with graduated sounds, but after a time the cervix returned, like indiarubber, to its abnormal state. He considered it essential to permanent relief that, whether by incision through the whole length of the canal, or by forcible dilatation, or by both, the lining membrane should be torn through, and maintained afterwards in an extended condition, to prevent its closing again. In answer to a question by Dr. Savage, he said he had seen benefit follow the use of Dr. Greenhalgh's spring stem.

Dr. Routh made a few remarks, and Dr. Edis briefly replied.

The annual meeting for the election of officers and other business then commenced. Dr. Charles Carter and Dr. Godson, the scrutineers of the ballot, declared that the gentlemen whose names had been submitted to the Fellows in the printed list were unanimously elected. The report of the Treasurer, Dr. Murray, was read, and cordially adopted. It showed that the finances of the Society were in a very satisfactory condition. The report of the Honorary Librarian, Dr. Wiltshire, was also cordially adopted. Dr. Wiltshire mentioned that Dr. Day, a member of the Council, had presented the Society with a very handsome microscope for the library. On the motion of the President, a warm vote of thanks was accorded to Dr. Day for his handsome gift. Dr. Cleveland, in supporting the vote of thanks to the Honorary Librarian, asked whether a volume of reference as index to the *Transactions* could not be issued? The President then delivered an address.

THE PATHOLOGICAL SOCIETY.

TUESDAY, JANUARY 20.

J. W. Hulke, F.R.C.S., F.R.S., Vice-President, in the Chair.

Mr. Lennox Browne exhibited a cast, photographs, and laryngoscopic drawings of a case of Lymphoma displacing the Trachea and Larynx. The subject of the disease, a female of thirty-three, is still alive. On her admission into the Middlesex Hospital, under the care of Mr. Nunn, a tumour was found occupying the whole of the posterior triangle of the neck, and apparently fixed at the clavicle. There was dulness on percussion over the corresponding lung for three fingers' breadth below this bone. The patient stated that she first observed the swelling on the right side of the neck eight months previously, when she was four months pregnant. The right mamma was now enlarged, inflamed, and indurated, and the veins over it, as well as those of the right upper extremity, were very full and prominent. There was also a general bronchocele. With the laryngoscope, Mr. Browne found that the larynx was pushed entirely to the left of the middle line. The epiglottis was not distorted, but the right ary-epiglottic fold was greatly stretched. There was not the slightest dyspnœa. The spleen was not enlarged. The patient suffered from continued slight diarrhœa. The interest of the case appeared to lie in the unusual displacement of the windpipe, with absolutely no disturbance of the respiration. At a later stage of the disease, when the deeper glands became involved, dyspnœa would probably be a prominent symptom.

Mr. Morris, referring to the clinical interest of the case, contrasted it with one of suppurating lymphatic growth from the mediastinum, with perforation of the trachea, which was brought forward by Mr. Coupland from the Middlesex Hospital at the last meeting. The absence of dyspnœal symptoms in a case of large tumour like the present was to be accounted for by the non-fixity of the parts, the trachea being pushed aside, while in the mediastinum a small growth might press either on a nerve or on the trachea. Another important circumstance is the extreme hyperæsthesia of the air-passages in such cases. In the patient just referred to, the introduction of the tracheotomy-tube probably increased the dyspnœa; and after comparative relief by its removal, any attempt to replace the instrument for the next few days induced spasm. The simple opening of the windpipe afforded relief, most probably by giving vent to the abundant irritating mucus.

Mr. Pugin Thornton asked Mr. Browne the reasons for his diagnosis of lymphoma. He had rarely seen lymphoma displace the trachea.

Mr. Browne replied that he had adopted the diagnosis which was made at the Middlesex Hospital.

Mr. Hulke said that it was impossible to arrive at an indisputable diagnosis of lymphoma ante-mortem; but the lobulation, elasticity, and other characters made him believe in its correctness. He had several times seen displacement of the trachea—even extreme—by lymphomatous growth.

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Dr. Cobbold exhibited specimens of a Strongylus which occurs in Birds dying of Grouse Disease. Dr. Cobbold stands alone in his belief that this parasite is the cause of the disease. Six or eight different opinions have been hazarded, the majority being that it is a blood-disorder. The grouse epidemic of 1867 was attributed to liver disease, but a larger proportion of the birds had tapeworm than liver disease. In the last epidemic Dr. Cobbold had examined forty specimens of grouse, and found them affected with the strongylus pergracilis—a new species, chiefly infesting the cæca, where they may be found, on careful search, by thousands. Other species of the genus strongylus inhabit hares, cattle, and sheep respectively, in the last case causing the "lamb disease." In the grouse the evidence of irritation found is engorgement of the villi of the cæcal mucous membrane. In reply to a question on the etiology of the disease, put by Mr. Hulke, Dr. Cobbold added that the eggs of the tapeworm in the grouse are thin-shelled, and that the birds acquire the parasite by feeding on insects which can digest such eggs only. The number of birds invaded by the parasite will depend, therefore, on the number of such insects, and this again upon the weather. The same will hold good in the case of the strongylus.

Dr. Wickham Legg exhibited specimens of Hydatids of the Liver, Omentum, and Recto-vesical Pouch, and of Xanthelasma Multiplex. They were taken from the body of a man who had been deeply jaundiced more than twelve months. Xanthelasma existed in various parts of the skin. Along the sides of the tongue there were found several yellowish-white soft spots, some of them symmetrically arranged, and from a fourpenny-piece to a sixpenny-piece in size. This is the first recorded case of xanthelasma of the tongue. The patient died rather suddenly at last, with a temperature of 106°. The urine was much increased in quantity. Post-mortem a large hydatid cyst was found in the recto-vesical pouch, a second in the omentum, and three in the right lobe of the liver. The largest of the hepatic tumours pressed on the hepatic duct, which was greatly dilated. Behind the seat of obstruction was a perfectly colourless fluid, but the smallest ducts contained a yellowish secretion. The liver weighed 140 oz., was green mottled with yellow, tough, and slightly granular. The cells were intact even seven days after death. A cluster of spots of xanthelasma was found at the commencement of the œsophagus, and other spots at the bifurcation of the trachea, on the splenic capsule, and on the peritoneum. There was but little atheroma of the great vessels. In regard to the pathology of the xanthelasmic patches on the skin, Dr. Legg agreed with Waldeyer that they are due to a proliferation of the fixed connective-tissue corpuscles of the cutaneous tissue, some of which become filled with fat. This opinion is opposed to that of Mr. Howse, that the change is similar to atheroma. Xanthelasma is not a fatty degeneration.

Dr. Murchison referred to a case which he presented some five years ago, and expressed his belief that the histological appearances then described were very similar to those given by Dr. Legg.

Mr. Hulke remarked that the case was interesting from the occurrence of xanthelasma in the tongue. Xanthelasma is not at all an uncommon disease. The results of his histological examination of the patches were exactly those just described. He had never found any glandular connexion of the disease. Another point was the connexion of xanthelasma and jaundice. In some cases of the affection watched for years by Mr. Hulke there had been no ordinary symptoms of biliary derangement.

Mr. Fairlie Clarke confirmed the statement of the uniqueness of the case in respect of the affection of the tongue.

Dr. Hilton Fagge believed that he was not wrong in saying that no case of multiple xanthelasma has occurred without jaundice. The xanthelasma does not appear until the jaundice has existed from twelve to eighteen months.

Dr. Legg replied that in regard to affection of the sebaceous glands in xanthelasma there is an accumulation of cells to be seen around both these and all other structures in and passing through the patch.

Dr. Goodhart showed two specimens of what is called Syphilitic Phthisis. The first occurred in a woman of fifty, who died in a few hours of profuse hæmoptysis. She stated that she had been ill for twelve months. Both lungs, and especially the left, were found post-mortem in a condition called fibroid phthisis. In the base of one was a pulmonary aneurism. The liver contained a gummatous patch. The change in the lung was not uncommon, and presented no special character. It was of interest only when associated with the gumma. The second specimen was taken from the body of a man of twenty. He received an injury to the left side of his chest in the beginning of December, but soon resumed work, which, however, he continued for a week only. He was admitted into Guy's Hospital, and died of pulmonary gangrene and pneumothorax. Post-mortem, the left lung presented a gangrenous patch, and the rest was in a condition of "chronic pneumonia." There was no history of syphilis. The condition resembled that lately described by Dr. Payne as occurring in syphilis. Dr. Goodhart believed it was more an acute interstitial pneumonia.

Dr. Payne referred to several appearances in lungs, which have been described as syphilitic. In the case of a young woman who had been in the Lock Hospital, he found post-mortem in one portion of the lung numerous small granulations which seemed passing into a fibroid condition. Lung disease in syphilis is not uncommon, and he wished to know the opinion of others on this subject.

Dr. Green believed that there is no evidence of syphilitic disease causing phthisis. He would speak of "syphilitic disease of the lung," and not of "syphilitic phthisis." No doubt true gummata occur in the lung; but, irrespective of these, he believed the lung may present fibroid changes referable to syphilis. Dr. Goodhart's first specimen was a good example of this condition—an irregular distribution of fibroid patches, the change commencing around the vessels. Chronic pneumonia, on the other hand, is tolerably uniform, especially at the base. Dr. Green also referred to a lung he exhibited last session, where the lining of a pulmonary cavity had syphilitic characters.

Mr. Arnott exhibited a specimen of a Cyst in a child's scalp simulating Meningocele. A child of six months was brought as an out-patient, in December, 1872, with an oval swelling in front of the anterior fontanelle. It was as large as a bantam's egg, translucent and irreducible. The skin covering it was tight, and the bone at the base of the tumour could be felt to be wanting. The growth was diagnosed a rare case of meningocele. The history supported this view: the mother stated that at five weeks it was as big as a hazel-nut, pulsating, and swelling on coughing; and that she had been recommended by other surgeons to compress it, to paint it with iodine, etc. A pad and elastic bandage were applied to the swelling. After a year it was reduced to two-thirds its size; it became firmer, and a bony base was perceptible. In December last the child died of broncho-pneumonia. Post-mortem, the tumour was found to be not a meningocele but a dermoid cyst. It was not an ordinary sebaceous cyst, but contained a nearly opaque fatty material, was lined by something like true skin, and contained in its inner wall fine hairs and follicles. The bone at the base was partly deficient. Mr. Arnott considered the case a rare one, but mentioned a somewhat similar one recorded by Giraldès, which was tapped and yielded a fluid indistinguishable from that of spina bifida.

Mr. Hulke spoke of the misleading history of this case, and referred to a case in which the converse mistake was made—where a surgeon cut into a meningocele believing it to be a dermoid cyst. He proposed the sugar test to distinguish the fluid of spina bifida or meningocele from that of a dermoid cyst. Mr. Hulke also referred to a specimen in the Middlesex Hospital museum of a skull-cap eroded by an ordinary sebaceous cyst.

Mr. Lawson Tait, of Birmingham, sent for exhibition a specimen of Solid Fibroma of the Ovary. It weighed nearly nine pounds, and is probably nearly the largest example on record. The patient died shortly after operation.

CLINICAL SOCIETY.

Friday, January 23.

Prescott Hewett, F.R.C.S., President, in the Chair.

Mr. Prescott Hewett read an address on "Pyæmia in Private Practice," which appears in another column.

Mr. Hutchinson said he had something to add to what had been said, mainly from experiences among the lower animals. Among these pyæmia was very common, even when they were in a perfect hygienic condition. He had lost a good many ewes from pyæmia in the open fields, some from retained placenta.

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Surely there could be no "hospitalism" here. A man at the farm was bitten by a calf. There was no broken skin, but inflammation and abscess followed, with rigors and pyæmia. Ultimately the man died of abscesses in the hip and leg. Here the rigors began before the abscess was opened. Again, a gamekeeper was bitten by a ferret, and died in eight days from pyæmia. He thought pyæmia was specially prone to occur whenever bone was implicated, the reason being that there was unusual risk of venous inflammation. He thought that in certain cases where the soft tissues were injured the risk arose from puncturing a vein. This probably was so with the gamekeeper. As to "hospitalism," pyæmia can undoubtedly arise without, but hospital patients are specially liable to its attacks. In them it often arose from contagion, and against this ventilation was useless. What was necessary was to remove the source of the contagion.

Mr. B. Carter asked, with reference to Mr. Hutchinson's statement, what was the experience as regards pyæmia after venesection when that was in vogue?

Mr. Charles Hawkins said he had many years watched the practice of a large hospital, when operations were more common than they are now. He was glad to hear Mr. Prescott Hewett's paper, which would surely lead to a change of opinion as regards hospitals. Two cases occurred to his mind as happening recently. A gentleman riding in the park was thrown, and broke his leg. He was placed in a new ward, with a nurse to himself, and yet, with every care, he died of pyæmia. In the next ward, with thirty patients, was a man, probably dissipated, who came in with fractured thigh, jaw, and skull, yet he did well. Some years ago there was an outbreak of phagedæna in the best ward of the hospital, yet it hardly ever spread to the lower ward, which was not nearly so well ventilated. They had also tried operations in the country, at the Morley Hospital, Wimbledon; some did well, some badly, at both hospitals. There was formerly in London a hospital which was everything it should not be—an old workhouse, built on the site of a well-filled graveyard,—yet some good operations were performed there. The graveyard was cleared out, the hospital rebuilt on the most approved principles, and the results were not so good as before. When bad cases occurred in private practice they also occurred in public practice. Brodie always objected to operating with the wind in the west, when there was great heat, and when there were sudden changes in the weather.

Sir James Paget said the question whether there were conditions in hospitals which rendered pyæmia more frequent than in private practice was difficult to answer, for the persons and cases were different. There were comparatively few amputations in private for knee or elbow cases—insomuch that purely numerical statements were hardly reliable. At best we could only form an impression, but that might be equally good. Pyæmia was, on the whole, he thought, as frequent in private as in public. He had tried to compare the two in reference to all accidents, and he found no marked difference save for the difference in feeding and habits of drink. Sometimes we have in private pyæmia from more trivial causes than in public. Thus, he remembered a case arising from chilblain, another from the chafing of a boot, and so on. His experience, too, of different kinds of operations applied quite as much to private as to public practice, as regards operations on the knee-joint, breast, etc. Moreover, he had seen hospital gangrene more frequently in his own practice outside than inside a hospital. He remembered three such cases, all occurring among first-rate surroundings. He therefore concluded that there was nothing in a fairly good hospital to contribute to pyæmia more than anything out of it. He hoped the word "hospitalism" would be altogether abolished. It was unfair, and leading astray. If pyæmia was studied in both public and private, we might come to a fair knowledge of the truth. When venesection was rife, his own experience was that there was no pyæmia among ordinary cases.

Dr. Barnes said his experience was not quite special. He remembered only one case of pyæmia following venesection. In the *Dreadnought* there had been a great proneness to pyæmia; but Mr. Tudor, by taking very great care in dressing, particularly by using tow instead of sponges, and throwing this away after each dressing, was able to get rid of it. He had seen with horror some cases of ovariotomy performed in the ordinary way in hospitals. There could be no doubt that, as regards these operations, there was a profound difference between hospital and private practice. Often, however, he saw it in private patients from retained placenta. There probably the veins were concerned; but pyæmia must be looked for on all sides.

Mr. De Morgan thought two separate questions had been mixed up in the discussion. If several cases of pyæmia occurred after operation, no doubt it was much more liable to be spread in a hospital; but as regards single cases, common testimony showed that they might equally occur in private as in public. But might not this be from similar causes—viz., the ordinary sources of blood poisoning, especially imperfect drainage? Not long ago, most houses, however good, were affected in this way to some degree. In Middlesex Hospital the patients beside one particular window always had erysipelas or something of the kind. On examination a dustbin was found below. This was cleared out, but after a time was again neglected, and these kinds of mischief returned. He did not think that the covering up of a wound saved it, for he had seen wounds freely exposed to the air do quite as well as under any other method. The great thing was getting rid of the matter. He quite thought that "hospitalism" had been carried too far.

Mr. Bryant had long thought that pyæmia was not a purely hospital disease, and he had tried to find out where it came from. Really the worst cases occurred after slight accidents, but then the patients came in with it. In these, too, after death the appearances were much more severe and much more diffused than in ordinary hospital cases. Many of Mr. Hewett's cases began with erysipelas, commonly supposed to be a hospital malady; but this was not accurate, for most cases came from the outside. The great thing in a hospital was care and cleanliness.

Mr. Holmes said Mr. Hawkins's remarks as to Wimbledon suggested to his mind two very striking cases. He had tried amputation both there and in town. Two patients were sent to Wimbledon for amputation; both were fairly good, yet both died—one from pyæmia, one from erysipelas of the head. After these trials, he thought it hardly worth while to carry on the experiment.

Mr. Croft said he did not retain the same impression with regard to the *Dreadnought* which Dr. Barnes did. Both Busk and Rook did all they could, and as well as Mr. Tudor. After certain improvements in the ship the cases did better, but the results soon deteriorated. He considered the term "hospitalism" unfair. In all cases the study of details was important.

Dr. Barnes said Tudor's results were published.

Here Dr. Bastian moved, and Mr. Hutchinson seconded the motion, that the discussion be adjourned till the next meeting.

OBITUARY.

JOHN JONAS PHILLIPS, M.D. Lond., M.R.C.P.

While still young, with the tide of success fast rising, with much good work performed and more pledged, this physician has been suddenly called away. On Tuesday evening, the 20th inst., he was busy seeing patients, correcting proofs, and working with more than usual health and spirits, and on Thursday morning he was dying.

A Welshman by family and birth, he was educated at Mill-hill School, matriculated in 1860, and was articled to Mr. Pye-Smith, who has had the rare fortune to see four of his pupils become physicians to Guy's Hospital. After taking his degree at the University of London, he was appointed Demonstrator of Anatomy to the Guy's School; and in 1869 was elected to the post of Assistant Obstetric Physician. Fortunate in so early advancement—for he had only entered the Hospital nine years before,—he devoted himself with untiring energy to the branch of the profession he had chosen. Zealous and assiduous in his hospital work, he was popular with the students both as a clinical teacher and as secretary to the Pupils' Physical Society. He was highly esteemed by all his colleagues, and to many of them his sudden loss is that of a personal friend. Besides his work at Guy's, he was Physician to the Hospital for Sick Children, Great Ormond-street, and to the Royal Maternity Charity. He was secretary, first to the Hunterian, and afterwards to the Obstetrical Society, which offices he filled with remarkable tact and fidelity; and besides contributing papers to the Obstetrical *Transactions* and the "Guy's Hospital Reports," he had lately undertaken the joint-editorship of the latter publication. Meanwhile he had settled in Finsbury-square

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and very soon attained a share of private practice which was already becoming large, and was remarkable at so early an age. This may be partly ascribed to peculiarly favourable opportunities, but much more to the personal charm of his address, his knowledge of his work, the anxious care he gave to every case, and the unaffected kindness of his heart. While still a student, Phillips learned that he was the subject of organic disease of the heart; and the mitral murmurs which were then discovered were never forgotten by his more intimate friends, who watched his multiplicity of labours with just anxiety, and often, but in vain, suggested a more sparing expenditure of strength. Though of delicate appearance, he did not experience any serious symptoms until a few months ago, when an attack of aphasia and other indications gave him a warning of danger. Under the care of his friends, Dr. Hilton Fagge and Dr. Daldy, these symptoms, however, soon passed off, and he continued with a gentle obstinacy to increase rather than curtail his engagements. While thus cheerfully and courageously working "while it was day," he was overtaken by the last attack with unexpected suddenness. He had been sleeping some distance out of town for several successive nights in attendance on an anxious case, and when he reached home on Wednesday morning, January 21, he complained of headache and sickness, and, though he saw some patients in his house, was not able to go out. Symptoms of cerebral disturbance, which were significant enough, probably appeared less important to him from their having passed off so readily a few months before; and, forbidding his servant to call in any of the friends close at hand, who would have been eager to give what help could have been possible, he went early to bed, saying that he should be better after a night's rest. When called next morning, he was unconscious, and his colleagues—who were soon around his bed—found him in deep coma, with contracted pupils, stertorous breathing, and paralysed limbs. The old apex-murmur was still audible, and there can be little doubt that embolism or a fragile state of the arteries had led to extensive cerebral hæmorrhage, filling the ventricles and pressing on the medulla. He never regained consciousness, and died about three in the afternoon of the same day. He had lived only thirty-one years, and died in harness, without time for painful forebodings or the sad consciousness of failing powers. His career was too short for more than promise of what he would have done in the profession had longer time been granted him, but it was not too short to win high esteem and warm affection from those who knew him best. One who met with him as a student and a colleague can bear witness that he never knew a more amiable, right-thinking, pure-minded, Christian man.

On Tuesday, January 27, at 8 p.m., the hearse and mourning-carriages were received at the Euston Station by a large number of personal friends, of his colleagues, and members of the medical societies with which he had been or was at the time associated, together with very many of the students of Guy's Hospital. A portion of the station was railed off and draped with black; and the coffin having been placed on the railway hearse, an appropriate address was given by the Rev. Mr. Binney's successor, together with a short selection of passages from scripture, and concluded by a prayer. Among the concourse we noticed the Treasurer of Guy's Hospital, Sir W. Gull, Drs. Oldham, Habershon, Braxton Hicks, Fagge, Pye-Smith, Aveling, Daldy, Playfair, Fotherby, Squarey, and Wiltshire; Messrs. Scott, Moore, Davies-Colley, Evershed, etc.

GEORGE BEAMAN, M.D.,

Was born in 1803 in the neighbourhood of London, and after receiving a sound preliminary education was apprenticed to Mr. Holland, of Knutsford, the father of the late Sir Henry Holland. At the conclusion of his apprenticeship he entered the then united hospitals of Guy's and St. Thomas's, and from his attention, industry, and talents he soon became a great favourite with the medical officers of that celebrated school. For several sessions he was demonstrator of anatomy at Grainger's school. The knowledge which he thus acquired was of infinite advantage to him in after life, and was, no doubt, one of the elements of his great success as a practitioner. Soon after he was of age he entered into partnership with the late Mr. Hewson, an "apothecary" of the old school, then in practice in James-street, Covent-garden. At the expiration of the partnership, which was not one of the most amicable kind, Mr. Beaman's practice increased in a marvellous manner, and he soon became one of the leading "general practitioners" of the West-end of London, both as regarded the extent of his practice and the income he received. He kept up an intimate acquaintance with all his old teachers at the Borough hospitals, and was justly esteemed by them both in regard to his private worth and his professional ability. I believe he was the first English surgeon who saw Civialé operate for lithotrity, Beaman having early in life visited Paris to see practice. He was always, however, strongly opposed to this operative procedure; "probably," says a contemporary, in consequence "of the rough and inefficient measures which he witnessed at this time." On intimate terms with the late Mr. Wakley for many years, they founded the New Equitable Life Assurance Office. This, I believe, was most disastrous to Beaman, who threw with his characteristic energy all his time—or, at least, too much of it—into the new enterprise. I have reason to know that the time he spent in forwarding the interests of the new institution acted injuriously to him in his practice, which was then at its zenith. But he acted on a principle highly to his honour. He had long felt, as had his colleague, that great injustice was done to the profession by the way in which medical practitioners had been treated by the great body of life assurance offices, in refusing to pay them their justly earned fees for their reports with respect to the lives of intending insurers. He was mainly instrumental, by his services as vice-chairman of the new society, in reforming this vicious system; and I consider that the profession are deeply indebted to him for the vigour and energy with which he carried on his labours in their behalf. Unfortunately, dissension arose amongst the directors of the New Equitable, which resulted in an open quarrel between its founders and the secession of Dr. Beaman from his connexion with it. Beaman had immense influence with his professional brethren, and brought a large amount of business to the new company. From the occurrence of his secession from it I date the period of Dr. Beaman's misfortunes. It had a most disastrous effect upon his spirits and energies, and those who knew him best were painfully cognisant of this fact. It is true that previously he had become seriously involved in railway speculations, which harassed his life to the end. His secession from the New Equitable was the more to be regretted, as it has become, in amalgamation with the Briton, one of the most important and sound assurance offices of the day. Dr. Beaman's tendency to enter into "speculations" is not without its moral; nor is it a singular instance with regard to its evils on the fortunes of members of our profession. The most successful men amongst us have been those who have devoted their whole time and energies to their calling, and have made safe and not speculative investments. I could enumerate many cases in proof of this. One will suffice. A very eminent surgeon, in receipt of a very large income, said to me on one occasion, "I should have been a wealthy man, now in my old age, had I not early in life embarked in a speculation, most promising at the time, but in the end most disastrous. This year I have paid the last £2000 on my liabilities, those liabilities having been a dead weight upon me to that extent for eighteen years past." Dr. Beaman, in the palmy days of Covent-garden and the Strand, attended most of the then wealthy tradesmen and others who resided upon the spot. But he had a more important area than this, for he was the medical adviser of the Tavistock, Bedford, and other large hotels in Covent-garden, which then were amongst the most, if not the most important, hotels in London. The connexion he formed by this attendance was of the greatest importance to him, and it was to a patient he attended at the Tavistock that he owed his appointment as medical officer of the South-Western Railway, soon after its formation. The duties of this appointment he performed in an exemplary manner to within a few days of his death. During the cholera epidemic in 1852 he was called in, in a casual manner, to see a clerk in Somerset House, stricken with the premonitory symptoms of that disease. The Commissioners were so impressed with his manners and appearance, that they requested him to accept the office of medical adviser to the vast establishment at Somerset House; this he undertook, and unquestionably rendered most important services to it. It is impossible, in this brief and imperfect memoir of my late esteemed friend "of more than forty long years," to pass by the part he performed in arresting a most atrocious system of murder, which there is too strong reason to believe had existed for many years. Soon after the revela-

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tions with respect to the Burke and Hare murders in Edinburgh, the body of an Italian boy was brought to King's College Hospital School, on sale for dissection. Mr. Partridge, the then demonstrator of anatomy, had some suspicion that the boy had not met with a natural death. The "resurrectionists" were accordingly on this suspicion arrested, and the body was removed to the then Covent-garden Watchhouse to be examined, that medical evidence might be forthcoming at the coroner's inquest as to the cause of his death. At that examination there were present—Mr. Herbert Mayo, Professor of Anatomy in King's College; Mr. Partridge, Demonstrator; Mr. Beaman and Mr. Weatherfield, parochial surgeons; Mr. Edwards, assistant to Mr. Beaman; and myself, as representative of my principal, the surgeon to the F Division of police. We were congregated in a small room ten feet by eight; the day was sultry, the stench somewhat intolerable to a neophyte like myself. The body was examined as to its internal organs: there was no sign of foul play with respect to it, and Mr. Mayo gave it as his opinion that the boy had died a natural death. Mr. Beaman said, "I am not satisfied with this opinion," and requested that the examination should be extended to the spine. The examination was continued: the spine was found dislocated, the cause of death ascertained, and the murderers suffered eventually the death they deserved. But for the timely interference of Mr. Beaman, the murderers would probably have escaped. This proceeding effectively put a stop to "burking." It has been said, not without reason, that "he might be looked upon as being about the last of the well-known class of the general practitioners of a bygone generation." But this is hardly correct. When Beaman was at the height of his practice, the general practitioners were, as a class, very imperfectly educated. The Act of 1815 had not yet come into general operation. Beaman was undoubtedly not only a man of original talent, but of extensive acquirements, and far superior to the common run of his brethren of the period. He could always hold his own, even when consulting with eminent men of the "higher grade." His contributions to medical literature were—"On the Treatment of Cholera with Emetics of Common Salt," and "Epilepsy and its Cure." Dr. Beaman in his relation to friends and patients was considerate, warm-hearted, and a steadfast friend. He had suffered from illness for about two years, but only such as manifested gradually declining strength. He was confined to his bed for two days, and passed away without suffering. In person he was tall and strongly made; a remarkably handsome face beaming with intelligence and a kindly smile. Dr. Beaman dressed rather in the old style. He always wore black, with a dress coat and a white cravat. It is a small matter, but characteristic of the man, to state that during my intimate acquaintance with him of forty years I never saw him dressed except in this way. In the winter months he wore an olive-green great-coat with a velvet collar. I joked him on one occasion on his never changing his dress, and he told me that for forty years a country tailor had supplied him with his clothes at stated intervals, so that the dress, though renewed, had never been "changed" from 1840 to 1873. J. F. C.

MEDICAL NEWS.

ROYAL COLLEGE OF SURGEONS OF ENGLAND.—The following gentlemen, having undergone the necessary examinations for the diploma, were admitted Members of the College at a meeting of the Court of Examiners on the 22nd inst., viz.:—

Andrews, Samuel, King's-road, N., student of St. Bartholomew's Hospital.
Bryan, Clement Frederick, L.S.A., Humberston, near Leicester, of Guy's Hospital.
Churchward, Albert, L.S.A., Anerley, of Guy's Hospital.
Dhanjisha Navroji Parakh, L.R.C.P. Lond., Bombay, of University College.
Gard, William John, L.S.A., Stoke, Devonport, of Guy's Hospital.
Howitt, Henry, M.B. Toronto, Ontario, Canada West, of St. Thomas's Hospital.
Mandaley, Joseph, Lancaster, of Guy's Hospital.
Phillips, James Willoughby Jordan, New York, U.S., of Guy's Hospital.
Roe, Edward, M.A. Cantab., of St. Bartholomew's Hospital.
Sargent, George, Upper Baker-street, W.C., of St. Bartholomew's Hospital.
Strickland, Arthur William, Stratford-on-Avon, of the Birmingham School.
Trigge, John Bellhouse Bowden, M.B. Aberd. and L.S.A., Falmouth, of University College.
Whitaker, Joseph Sealy, L.S.A., Kingaland, of Guy's Hospital.
Whitmore, William Tickle, Norris-street, St. James's, of St. Bartholomew's Hospital.
Wigan, George, Portishead, Somerset, of Guy's Hospital.

The following gentlemen passed on the 23rd inst., viz.:—

Alderton, Thomas Gunton, Great Ormond-street, student of St. Bartholomew's Hospital.
Ford, Montague, L.R.C.P. Edin., Bedford, of the Charing-cross Hospital.
Hartley, Edmund Baron, Warwick-square, of St. George's Hospital.
Hutchings, Edward John, Dorchester, of Guy's Hospital.
Joseph, George William, L.K.&Q.C.P. Ire. and L.S.A., Liverpool, of the Liverpool School.
Lang, William, Exeter, of the London Hospital.
May, William Allan, L.S.A., Stoke, Devonport, of Guy's Hospital.
Morris, George, Wigan, of the Manchester School.
Needham, Walter, L.F.P.&S. Glasg. and L.S.A., Manchester, of the Manchester School.
Oliver, John Power, M.B. Trin. Col. Dub., Dublin, of the Dublin College.
Owgan, Francis Alleyn, Regent-square, of St. Bartholomew's Hospital.
Pitts, Thomas Spencer, Stanningley, near Leeds, of King's College.
Seccombe, George Samuel, Brixton, of St. George's Hospital.

Of the eighty-six candidates examined, twenty-six were referred in Surgery and three in Medicine. The following were the qualifications possessed by some of the candidates:—L.R.C.P. Lond., one; L.S.A., thirteen; B.A. and M.A. Cantab., two; M.B. and M.D. Edin., two; M.B. Aberd. and L.S.A., one; L.R.C.P. Edin., one; L.R.C.P. Edin. and L.S.A., one; L.F.P.&S. Glasg. and L.S.A., one; M.B. Trin. Coll. Dub., one; L.K.&Q.C.P. Ire. and L.S.A. Lond., one; M.D. Philad., one; and M.B. Toronto, one.

APPOINTMENTS.

*** The Editor will thank gentlemen to forward to the Publishing-office, as early as possible, information as to any new Appointments that take place.

HARDWICKE, HERBERT JUNIUS, L.R.C.P.—Medical Officer for No. 2 Division of Ecclesall Union, *vice* C. M. Mellor, M.D., resigned.

HARBER, CHARLES, J. J., L.R.C.P. Lond.—Honorary Medical Officer to the Eastern Dispensary in connexion with the German Hospital, Dalston, *vice* Dr. A. Rasch, resigned.

WILLS, THOMAS M., L.K.&Q.C.P.I. and L.R.C.S.I., etc.—Assistant-Surgeon to the 15th Regiment Lancashire Rifle Volunteers.

BIRTHS.

BARBIE.—On January 22, at Elmbank, Dumfries, the wife of Andrew D. Barrie, M.B., C.M., and L.R.C.S.E., of a son.

CRINGLE.—On January 25, at 252, Mile-end-road, the wife of W. H. Cringle, L.S.A., of a son.

DUDLEY.—On January 22, at 71, Belgrave-road, S.W., the wife of J. Gardner Dudley, M.D., of a son.

JACKSON.—On January 19, at 9, Highbury-grove, N., the wife of H. E. Jackson, M.R.C.S., of a daughter.

ORTON.—On January 22, at Crouch-end, Hornsey, N., the wife of F. Orton, M.D., of a daughter.

MOORE.—On January 18, at The Woodloes, Grove-park, Chiswick, the wife of E. W. Moore, L.R.C.P., of a son.

SPURGIN.—On January 25, at 14, Henrietta-street, Cavendish-square, the wife of Frederick W. Spurgin, M.R.C.S., L.R.C.P., of a son.

MARRIAGES.

CURGENVEN—HARMAN.—On January 20, at St. Matthew's, Ardwick, Manchester, William Grafton Curgenven, M.D., M.R.C.S. Eng., Derby, to Pamella Barrett, daughter of W. H. Harman, Esq., Richmond-grove, Longsight, Manchester.

DANIELL—EVANS.—On January 20, at St. George's, Hanover-square, W., Cyrus Octavius Daniell, M.D., Surgeon-Major Bengal Army, to Caroline Charlotte, youngest and only surviving daughter of the late George Evans, M.D., H.E.I.C.S., of 69, Gloucester-place, Portman-square.

FOX—STEPHENS.—On January 17, at Stoke Fleming Church, Devon, Cornelius B. Fox, M.D., of Chelmsford, to Annie Frances, youngest daughter of Vice-Admiral Stephens, of Warfleet, near Dartmouth.

MASH—STEVENSON.—On January 27, at All Saints', Northampton, James Mash, F.R.C.S. Eng., L.S.A., to Catherine Mackeness, youngest daughter of the late J. G. Stevenson, Esq., of Skellingthorpe, Lincolnshire.

NANCE—GAINS.—On January 22, at Earl's Shilton, Leicestershire, John, eldest son of James Nance, F.R.C.S., Eccleshall, Staffordshire, to Fanny, youngest daughter of the late Joseph Gains, Esq.

O'KEEFE—WEBB.—On January 20, at St. Mary Magdalene, Paddington, Yelverton O'Keefe, Commander R.N. (Retired List), to Alice, third daughter of the late Allan Webb, M.D., Surgeon-Major Bengal Medical Service.

STEWART—FAGGE.—On January 17, at St. Stephen's, Bayswater, William, elder surviving son of the late T. A. Stewart, M.D., of Plymouth, to Alice Maude, younger daughter of the late Edwin Fagge, F.R.C.S., of London.

DEATHS.

ALLEN, PETER, M.D., F.R.C.S., Aural Surgeon, and Lecturer at Guy's Hospital, at his residence, 117, Harley-street, Cavendish-square, on January 18.

BROWN, HARVEY GOSSET, of the London Hospital, second son of Dr. Gosset Brown, at Friars-hill, Guestling, Hastings (the temporary residence of his father), after eighteen hours' acute suffering, the result of an accident whilst shooting, on January 18, aged 23.

HARRIS, HERBERT ROBEY, M.R.C.S. Eng., at his residence, 52, Bolton-street, Bury, Lancashire, on January 19, aged 42.

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LEE, N., B.C., M.R.C.S. Eng., at his residence, 26, Hanley-road, Hornsey-rise, on January 19, aged 52.

MORRIS, WILLIAM, M.R.C.S. Eng., L.S.A., suddenly, at his residence, Petworth, Sussex, on January 21, in his 54th year.

PEET, JOHN, M.D., F.R.C.P., retired Surgeon-Major Bombay Army, late Principal of Grant Medical College, Bombay, at Highfields, Shanklin, Isle of Wight, on January 18.

PHILLIPS, J. J., M.D. Lond., M.B., M.R.C.P. Lond., M.R.C.S. Eng., Assistant Obstetric Physician to Guy's Hospital, on January 22, aged 31.

TAYLOR, FREDERICK BAYNE, M.D., L.R.C.S., younger son of the late Captain John Taylor, R.N., at 32, Hova-villas, Cliftonville, Brighton, on January 26, aged 43.

YATES, WILLIAM HOLT YATES, M.D. Edin., F.R.A.S., of 5, Sumner-terrace, Onslow-square, and The Hall, Wickersley, Yorkshire, on January 26, in his 72nd year.

VACANCIES.

In the following list the nature of the office vacant, the qualifications required in the Candidate, the person to whom application should be made, and the day of election (as far as known) are stated in succession.

COTON-HILL INSTITUTION FOR THE INSANE.—Assistant Medical Officer. Candidates must be duly qualified. Applications, with testimonials, to Dr. Hewson, Coton-hill, Stafford.

DERBYSHIRE GENERAL INFIRMARY.—House-Surgeon. Candidates must be M.R.C.S. Applications, with testimonials, to the Secretary, on or before February 7.

GENERAL HOSPITAL, NOTTINGHAM.—Physician. Candidates must be duly qualified. Applications, with testimonials, to the Chairman of the Qualification Committee, on or before March 10.

HUDDERSFIELD INFIRMARY.—Physician. Particulars from the Honorary Secretary or House-Surgeon.

KING AND QUEEN'S COLLEGE OF PHYSICIANS, DUBLIN.—King's Professorship of Medicine. Candidates must be duly qualified. Applications, with testimonials, to Dr. G. Magee Finny, Registrar of the College of Physicians, and to the Rev. Dr. Carson, Registrar of Trinity College, Dublin, on or before February 2.

LEITH HOSPITAL.—Assistant-Surgeon. Applications, with testimonials, to Mr. Mann, 42, Bernard-street, Leith.

ST. MARYLEBONE GENERAL DISPENSARY, 77, WELBECK-STREET, CAVENDISH-SQUARE.—Physician and Surgeon. Candidates must be duly qualified. Personal applications on February 4 at 11 a.m.

SHEFFIELD GENERAL INFIRMARY.—Assistant House-Surgeon. Candidates must be duly qualified. Applications, with testimonials, to the Medical Staff, care of the Secretary, on or before February 10.

WARRINGTON DISPENSARY, AND HATTON'S CHARITY HOSPITAL.—Resident Surgeon-Apothecary. Candidates must be duly qualified. Applications, with testimonials, to Joseph Davies, Esq., Hon. Sec., on or before February 2.

WESTMINSTER HOSPITAL.—Assistant-Surgeon. Candidates must be F.R.C.S. Eng. Each candidate must attend (with his testimonials) the House Committee on February 10.

UNION AND PAROCHIAL MEDICAL SERVICE.

APPOINTMENTS.

Ashton-under-Lyne Union.—James L. Andrew, M.R.C.S. Eng., L.R.C.P. Edin., L.S.A., to the Twelfth District.

Ouzdle Union.—Edward Greaves, M.R.C.S. Eng., L.R.C.P. Edin., to the Weldon District.

Salford Union.—Thomas N. Orchard, B.M. and M.C. Aber., to the Broughton, Pendleton, and Pendlebury District. James S. Orchard, B.M. and M.C. Aber., as Assistant Medical Officer at the Workhouse.

Stone Union.—Robert Thorburn, M.B. and C.M. Edin., to the Trentham District.

Thame Union.—Arthur Perigal, M.D., M.B., and C.M. Edin., M.R.C.S. Eng., to the Waterperry District.

County of Surrey.—Thomas Stevenson, M.D. Lond., F.R.C.P., F.C.S., re-appointed Analyst.

DENTAL SURGEONS.—During the last few days, examinations have been going on at the Royal College of Surgeons for its diploma in Dental Surgery, and will not be brought to a close until this day (Friday). The following questions were submitted on the first day, from two to four o'clock, and the candidates were required to answer at least one of the two questions both in Anatomy and Physiology, and in Pathology and Surgery:—Anatomy and Physiology: 1. Describe the connexions of the superior maxillary bone, and the arrangement of the mucous membrane covering the lateral wall of the nostril. 2. Describe the distribution of the nerves concerned in the sense of taste. Pathology and Surgery: 1. What is cancrum oris? at what age and under what circumstances does this disease usually occur? and how would you treat it? 2. Describe the nature, diagnosis, and treatment of ranula. The following were the questions in Dental Anatomy and Physiology, and in Dental Surgery and Pathology. The candidates were required to answer two out of the three questions in both departments:—Dental Anatomy and Physiology: 1. Describe fully the structure of osteo-dentine in the human subject, and its mode of development. 2. Describe the growth of an incisor tooth, and the method of increase of its several tissues. 3. Describe the processes of an odontoblast, and the parts which they respectively fulfil in the formation of dentine. Dental Surgery and Pathology: 1. What are the cases of oral disease or lesion, whether in connexion with the teeth, gums, and alveoli, in which the following drugs may be useful?—carbolic acid, sulphuric acid, tannic acid, morphia, arsenic, spirits of wine, matico, perchloride of iron, and chlorate of potash. 2. What is meant by necrosis of a tooth? State its causes and treatment. 3. In what conditions of the pulp is it advisable to employ other than gold fillings in stopping the cavity of a carious tooth?

MR. DYSON WOOD, of Wakefield, has been appointed Medical Officer of Health for Altofts.

THE LORD BISHOP OF WINCHESTER (Dr. Harold Browne) has consented to occupy the chair at the biennial festival of the Royal National Hospital for Consumption and Diseases of the Chest, situate at Ventnor.

THE Liverpool Town Council last week resolved to petition the Local Government Board for power to acquire a site at Bromborough, Cheshire, for a cholera hospital for the port.

UNCLEAN SALMON.—A few days ago application was made in the Northern Divisional Police-court, Dublin, on behalf of the Public Health Committee of the Corporation of that city, for an order for the destruction of a salmon found by the police at the stall of a respectable fish merchant. Dr. Cameron, the city analyst, deposed that the fish weighed twenty pounds, and contained four pounds of ova. Its colour was bad, and its flesh soft and unfit for food. He said the object of the prosecution was to prevent poachers sending such fish to market. The fish merchant, who appears to have been quite innocent of any intention to sell unclean salmon, on hearing Dr. Cameron's evidence at once consented to the granting of the order applied for.

ACADÉMIE DES SCIENCES.—In the Section of Astronomy M. Huggins has been elected a Corresponding Member by 38 out of 42 votes, and Professor Newcomb, of the United States, has been elected into the same section by 46 out of 49 votes.

A COMMITTEE FOR SCIENTIFIC AND LITERARY VOYAGES AND MISSIONS.—A Committee bearing this title, consisting of twenty persons distinguished in letters or science, has just been attached to the French Ministry of Public Instruction. Its objects are stated to be—(1) To investigate what scientific or literary missions are of most utility; (2) to examine any projects for voyages or missions which may be submitted to the Minister; (3) to prepare the programmes of such missions, to give detailed instructions to those who undertake them, and if necessary to keep up a correspondence with them; (4) to examine the accounts brought back by the travellers, and to propose when desirable their publication; (5) to designate to the Minister the travellers deserving of honorary recompenses; (6) to appeal to the various branches of the Administration to concentrate on certain missions all the resources at the disposal of the State.

NOTES, QUERIES, AND REPLIES.

He that questioneth much shall learn much.—Bacon.

Mr. James Box.—Twenty-five to twenty-six feet.

B. E. L.—An examination for eighteen appointments as Surgeons in her Majesty's Indian Medical Service will be held in London on February 16 next.

H. U. G.—John Dalton, the chemist and founder of the Atomic Theory, was a native of Cumberland.

L. F. H.—The Hospital for Women, Soho-square, owes its establishment to Dr. Protheroe Smith. The first building was opened in Red Lion-square. The removal of the institution to its present site took place in 1851.

Officers of Health.—Yes. Perhaps no city so healthy. It is stated that Mr. Brown, of the well-known firm of Longman, Hurst, Rees, Orme, and Brown, during the half-century he was a partner never slept out of Paternoster-row. He would take his Saturday half-holiday to dine at Richmond, but invariably returned to the "Row" to sleep.

L.D.S.—There will be an examination for this licence next week. Write to the secretary.

M.D., Birmingham.—Dr. Wright's course of lectures on "Clinical Medicine" was published in the *Medical Times*, vol. xvi.

Dr. Smith.—Lisfranc, the celebrated surgeon of La Pitié, died on May 12, 1847, aged 60. Mr. Dermott died September 12, 1847, of Bright's disease, in the 45th year of his age.

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THE INSANITARY CONDITION OF LINCOLN.

As ridicule has been said to be a strong weapon when properly applied, we quote the following from the *Lincolnshire Chronicle*:—

"*The Voices of the Bells on the Corporation Delaying to Drain the City.*

"'When *will* they be startin'?'
Said the bell of St. Martin.

"'They should not wait an hour,'
Said Great Tom from his tower.

"'They're a party of louts,'
Said St. Peter-at-Gowts.

"'That they are, to a man,'
Said the bell of St. Anne.

"'They're not chary of big words,'
Said St. Mary-le-Wigford's.

"'Which have not the least weight,'
Said St. Peter-in-Eastgate.

"'And do nothing at all,'
Said the bell of St. Paul.

"'That's where the farce is,'
Said St. Peter-at-Arches.

"'But keep up your pecker,"
Said the bell of Exchequer.

"'They'll be called to account,'
Said the church on the Mount.

"'Let's thrash the Town Clerk,'
Suggested St. Mark.

"'Thath what I've been within','
Lithped out Thaint Thwithin.

"'Have all or not *any* licked,'
Said the bell of St. Benedict.

"'We'd warm up their backs,'
Said the four Quarter Jacks.

"'Hush; don't be ridiculous,'
Said the bell of St. Nicholas.'

"St. Botolph alone
Merely uttered a groan,
A sort of low moan
In a dismal tone,
For out of patience he had grown,
And now concluded, 'twas simply absurd
On such a sad set to waste even a word."

THE PRELIMINARY EXAMINATIONS AT THE COLLEGE OF SURGEONS.

TO THE EDITOR OF THE MEDICAL TIMES AND GAZETTE.

SIR,—I trust you will allow me a small space in your valuable journal on the subject of the preliminary examination of the Royal College of Surgeons. The avowed object of this examination is to test the general knowledge of those who intend entering the medical profession, which is reasonable; but what appears to me to be unjust is, that a candidate, failing to satisfy the examiners in *one* subject only, should be compelled to undergo another examination in those subjects in which he has before passed. The candidate has to show that his general knowledge is good. He satisfies the examiners in some subjects, but fails in others. Say that he passes in everything but arithmetic, why need he undergo a second examination in those subjects in which he has shown a "competent knowledge"? A candidate may, moreover, have a very good knowledge of the very subject in which he fails; if so, how is it that he *does* fail? To this I answer, that it is through nervousness. Who are there of us who have not felt this sensation when being examined, and who have sometimes been quite unable, from the same cause, to answer a single question in a subject with which we were well acquainted? This again shows the injustice of being examined in every subject again, for a candidate having been once "plucked," would feel much more nervous on going up again, and may, therefore, fail in some of the very subjects in which he has before proved his proficiency. Trusting that you will raise the voice of your powerful journal against this injustice, and that you will be good enough to find room for this, I fear, rather lengthy epistle, I am, &c.,

Wargrave, Henley-on-Thames, January 20. W. SIMPSON.

Bibliopole, Kensington.—The Dr. Merriman to whom you allude died many years ago. Sir Samuel Garth, M.D., died in 1718. He was the author of the well-known poem "The Dispensary," although the sarcastic Pope wrote of him—

"Most authors steal their works or buy;
Garth did not write 'The Dispensary.'"

F.R.C.S. Exam.—Mr. South resigned his seat in the Council a few months since. The vacancy, with others, will be filled up in July next.

Mr. J. Foster, Hindmarsh.—19s.

J. B. N., Somerset.—We have again and again pointed out that he may be so styled "by courtesy," but he has no right to it in law. There is no law, however, against his assuming any such title, save for purposes of fraud.

John Hunter.—We have reason to believe that, owing to a strong representation on the subject from an influential quarter, Mr. Albert Grant may possibly be induced to alter the selection of busts of the great men about to adorn Leicester-square, which he has purchased, and is about to present to the nation; and it is believed he will substitute Hunter for Johnson. The museum now in Lincoln's-inn-fields was formerly located in Leicester-square, where the great physiologist for some time resided.

E.—Gmelin, the Tübingen Professor, published, in 1821, a series of researches on the poisonous effects of the rarer earths and metals, including manganese.

C. B. will find in the treatise of M. Trolliet, "Sur la Rage," the history of twenty-three persons severely bitten by a mad she-wolf, in the Department of the Isère, in May, 1817, of whom thirteen died of hydrophobia, and one from the suppuration following a scalp wound. Several animals which had been bitten died.

BARBARIANS.

TO THE EDITOR OF THE MEDICAL TIMES AND GAZETTE.

SIR,—The deluging rains, heralded by forked lightning, followed by awful thunderclaps, compel just now recourse to indoor pursuits—for instance, writing. In the intervals between the cascade-like showers, the clouds have the faintest shade of rose-pink. The brilliant gardens and varied vegetation dangerously welcome the tropical sun. Any amount of fever! Salines, lime-juice, quinine, arsenic in active demand! Returning from hospital or the swimming-bath, escaping the oppressive air by a gallop along a certain shady avenue between glorious trees, over inviting turf of emerald green, it is pleasant to meet the gaudy parrots, the smart blue jays, and the sleek doves. On a lofty branch sits a proud hawk, perfectly indifferent to the sarcastic observations of some ribald crows—rival sanitarians. With bushy tails erect, the zebra-striped squirrels chase each other along the grass, over the hedges, up the trees; whilst insects in myriads, including the scarlet cochineal, either buzz noisily about or daintily breakfast on the lovely convolvoluses or the succulent leaves. The whining jackals, the shrill crickets, the corpulent croaking frogs, who hold their revels by the light of the fireflies, are fortunately silent. The queer-tempered chesnut Arab shies at the ugly bullocks in the native carts—at the hard-working, dilapidated camel whose bite is so dangerous—at the knowing old elephant flapping those huge ears, proud of his cargo of bright laughing children, prouder still of his smart trappings. Some of the women met with, wearing white jackets and tight-fitting trousers, take great pains to hide their ugly faces. Others, whose rounded arms, well-proportioned busts, shapely limbs, and exquisite figures, improved by trifling ornaments would charm an artist, walk erect as grenadiers. Yet these attractive women are only poor peasants returning from field work, struggling under loads carried on their graceful heads. The men, too, deserve attention—mud-coloured creatures in mud-coloured clothes, white surplices, or no clothes at all; not a few weakly, paralysed, purblind, pitted with variola, or deformed; some tall, strong, well-developed. The children, perfectly naked, have shaved heads and enormous paunches. Yesterday, one of the natives, to punish adultery, slit off his wife's nose, then ripped himself up with a razor, and died in the evening. Excepting two instances of men severely stung on the penis by hornets, there are no peculiar cases in hospital just now. Before, however, the matter is forgotten, there is a tombstone down at the marble rocks at Jubbulpore, over an engineer, a good swimmer, who, attacked by hornets, very soon was drowned within sight of friends who could offer no assistance. What can be said throwing a new light on intermittent fever? Nothing! Working away with hypodermic injections of quinine, taking frequent temperatures, recording abnormal symptoms, there are no tangible satisfactory results at present worth writing a paper about. So to-day, interested in India and its people, very naturally curiosity is excited to make a note of the extent of medical and surgical knowledge here in ancient days. It appears the Hindoos were the first nation who, about the eighth century, gave minerals internally, besides using fumigations of cinnabar. In the list of medicaments figured arsenic for ague, preparations of antimony, copper, iron, lead, mercury, tin, zinc, as also sulphur, nitric and hydrochloric acids; were familiar with bandaging, venesection, styptics, cauteries, plastic operations, the treatment of fractures and dislocations, besides the operations for Cæsarian section, cataract, and lithotomy: about 130 curious instruments altogether in their category. Under a classification of alteratives, diuretics, diaphoretics, emetics, emmenagogues, salines, and stimulants collected from the vegetable and mineral kingdom, remedies adapted to the age, sex, temperament, and stage of disease were prescribed in heroic doses; the greatest attention meanwhile paid to the tongue, pulse, countenance, skin, temperature, evacuations, and dietetics; nor were the heart and lung sounds forgotten. On the authority of wise Ainslie and Royle, the Hindoos were well acquainted with variola, measles, epilepsy, and phthisis; with eleven varieties of headache, twenty diseases of the ear, thirty-one of the nose, seventy-six of the eye, sixty-five of the mouth. If a patient made faces taking a nauseous draught, the effect would be spoilt. It was *most unlucky* to summon a doctor away from his dinner, bed, the church, or the theatre—*most ill-omened:* an extraordinary and truthful fact which ought to be impressed on the minds of modern patients. To gain the confidence of families, the physician, clean and neat, should carry an umbrella, have an agreeable voice, a small tongue, straight eyes and nose, thin lips, short teeth, and thick bushy hair, which retains its vigour; should have a knowledge of books, and be kind to his pupils. A want of practical knowledge would prevent all the good effects of remedies; the practitioner's senses would be bewildered when called on to treat acute diseases. Such persons flatter the patient's friends, are diligent, take reduced fees, are hesitating and doubtful in performing difficult operations, pretending that their bad success is caused by bad attendants. On the other hand, medicines properly given become like the waters of immortality. Wading through these curious books, so many quaint observations and axioms come under notice that I am constrained to go on quoting—indeed, the difficulty is, how to stop, humbly hoping the reader will share some of the interest aroused. Here runs a description: A person with an excess of bile perspires much and has a bad smell. His skin yellow, the flesh soft; the nails, eyes, palate, tongue, lips, the palms of the hands, and soles of his feet, are copper-coloured. His fortune is bad; his hair soon becomes gray, the upper part of his head bald; he does not live long; his skin is wrinkled, as if by age. Eating much, he dislikes warm articles of food. Is soon angry, yet easily pacified. His memory is good; he is a precise man of business; speaks accurately, and has a fine appearance. Disliking salutation, angry when not saluted. Never content; his disposition resembles serpents, owls, cats, monkeys, tigers, and bears. Seven temperaments appear to have been defined, produced by excess of bile, phlegm, and air. When the latter was in excess the unfortunate patient had the disposition of the goat, the jackal, the vulture, the crow, or the ass. Passing to more serious points, those who are fortunate enough to obtain access to these books and who love Horace (who does not?) will find many congenial passages referring to the common-sense philosophy of life, its enjoyments contrasted with the daily uncertainties. The body is considered a mansion infested by age and sorrow; the seat of maladies; harassed with pains; haunted with the qualities of darkness, and incapable of standing long;—such a mansion of the vital soul let its occupier always cheerfully quit. When a person leaves his corpse like a log or lump of clay on the ground, his kindred retire with averted faces.

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What dies? Not the body, for it only changes its form; and certainly not the soul! Why then regret the death of relations and friends, if they have passed through life with propriety? Such grief is indeed natural, for it is universal, but it is the offspring of our ignorance and selfishness. Reluctantly closing this subject, just one word to those cursed with irritable, anxious dispositions, intensified by climate. Try scribbling during the long hours of June, or in the intervals of business in sickly September, unless desirous to assume the resemblance to serpents, owls, tigers, or bears. I am, &c., A Bengal Tiger.

COMMUNICATIONS have been received from—

Dr. Wiltshire, London; J. B. N.; Mr. Feldmann, London; Mr. H. Stevens, London; Dr. MacLachlan, Pemberton; Dr. Bathurst Woodman, London; Mr. R. Clement Lucas, London; Dr. Rogers, London; Dr. Stirton, Glasgow; Mr. G. Eastes, London; Dr. Peyton Blakiston, London; Dr. W. Ord, London; Dr. J. Hughlings-Jackson, London.

BOOKS RECEIVED—

Bateman on Hygiene—Taylor on the Question of the Transmission of Syphilitic Contagion in the Rite of Circumcision—Die Krankheiten des weiblichen Geschlechtes vom klinischen, pathologischen, und therapeutischen Standpunkte aus dargestellt, von Dr. Hermann Beigel, Erster Band—Braidwood on the Domestic Management of Children—The Junior Student's Guide to Latin Prose, by R. M. Millington, M.A.

PERIODICALS AND NEWSPAPERS RECEIVED—

Canada Medical and Surgical Journal—Journal de Thérapeutique—Gazette Hebdomadaire—O Correio Medico—Lancet—British Medical Journal—La France Médicale—Transactions of the American Ophthalmological Society—Lincolnshire Chronicle—Gazette Médicale—Le Progrès Medical Le Mouvement Médical—Gazette des Hôpitaux—La Tribune Médicale—Lincolnshire Gazette—Allgemeine Wiener Medizinische Zeitung—Revue des Sciences Médicales—The Leisure Hour for January and February—The Sunday at Home for January and February—Medical Press and Circular—The Gentleman's Magazine.

APPOINTMENTS FOR THE WEEK.

January 31. *Saturday (this day).*

Operations at St. Bartholomew's, 1½ p.m.; King's College, 2 p.m.; Charing-cross, 2 p.m.; Royal Free, 9 a.m. and 2 p.m.; Hospital for Women, 2½ a.m.; Royal London Ophthalmic, 11 a.m.; Royal Westminster Ophthalmic, 1½ p.m.; St. Thomas's, 9½ a.m.

Royal Institution, 3 p.m. Prof. G. Croom Robertson, "On Kant's Critical Philosophy."

February 2. *Monday.*

Operations at the Metropolitan Free, 2 p.m.; St. Mark's Hospital for Diseases of the Rectum, 2 p.m.; St. Peter's Hospital for Stone, 3 p.m.; Royal London Ophthalmic, 11 a.m.; Royal Westminster Ophthalmic, 1½ p.m.

Medical Society of London, 8½ p.m. Last Lettsomian Lecture, by Dr. Broadbent, on "Syphilitic Affections of the Brain, Meninges, and Cerebral Arteries."

Royal College of Surgeons of England, 4 p.m. Professor Erasmus Wilson's Lecture on "Dermatology."

3. *Tuesday.*

Operations at Guy's, 1½ p.m.; Westminster, 2 p.m.; National Orthopædic, Great Portland-street, 2 p.m.; Royal London Ophthalmic, 11 a.m.; Royal Westminster Ophthalmic, 1½ p.m.; West London, 3 p.m.

London Anthropological Society, 8 p.m. Meeting.

Pathological Society, 8 p.m. Mr. Brudenell Carter—Intra-ocular Growth of Uncertain Character. Mr. Nunn—Tumour which was attached to the Cervical Vertebræ. Dr. Peacock—Dissecting Aneurism of Aorta. Mr. Sidney Jones—Cancer of the Breast. Mr. Gowlland—Three Cases of Villous Tumour of the Rectum. Mr. Howard Marsh—Sarcomatous Growths from the Bladder and Vagina of a Child two years old. Dr. Silver—Specimens from a Case of Acute Leucocythæmia.

4. *Wednesday.*

Operations at University College, 2 p.m.; St. Mary's, 1½ p.m.; Middlesex, 1 p.m.; London, 2 p.m.; St. Bartholomew's, 1½ p.m.; Great Northern, 2 p.m.; St. Thomas's, 1½ p.m.; Samaritan, 2½ p.m.; King's College (by Mr. Wood), 2 p.m.; Royal London Ophthalmic, 11 a.m.; Royal Westminster Ophthalmic, 1½ p.m.

Obstetrical Society, 8 p.m. Dr. Playfair, "On Puerperal Thrombosis." Dr. Sabola, "On a New Operation for Atresia Uteri." Dr. Steele, "Two Cases of Dystocia from Contracted Pelvis." And other communications.

Royal College of Surgeons of England, 4 p.m. Professor Erasmus Wilson's Lecture on "Dermatology."

Royal Microscopical Society, 8 p.m. Anniversary Meeting.

5. *Thursday.*

Operations at St. George's, 1 p.m.; Central London Ophthalmic, 1 p.m.; Royal Orthopædic, 2 p.m.; University College, 2 p.m.; Royal London Ophthalmic, 11 a.m.; Royal Westminster Ophthalmic, 1½ p.m.

Harveian Society, (Special Meeting of Council, 7½ p.m.), 8 p.m. Mr. J. R. Lane, "On a Case of Dislocation of the Hip;" "On a Case of Fracture of the Humerus at the Anatomical Neck" (the patient will attend). Mr. Julius Collins, "On a Case of Hirsute Growth covering both sides of the Thorax" (the patient will attend). Mr. W. Towers Smith, "On a Case of Traumatic Pneumonia."

6. *Friday.*

Operations at Central London Ophthalmic, 2 p.m.; Royal London Ophthalmic, 11 a.m.; South London Ophthalmic, 2 p.m.; Royal Westminster Ophthalmic, 1½ p.m.; St. George's (ophthalmic operations), 1½ p.m.

Royal College of Surgeons of England, 4 p.m. Professor Erasmus Wilson's Lecture on "Dermatology."

VITAL STATISTICS OF LONDON.

Week ending Saturday, January 24.

BIRTHS.

Births of Boys, 1245; Girls, 1113; Total, 2358.
Average of 10 corresponding years 1864-73, 2271·4.

DEATHS.

	Males.	Females.	Total.
Deaths during the week	764	728	1492
Average of the ten years 1864-73	811·5	837·6	1649·1
Average corrected to increased population	...	...	1814
Deaths of people aged 80 and upwards	...	...	65

DEATHS IN SUB-DISTRICTS FROM EPIDEMICS.

	Population, 1871.	Small-pox.	Measles.	Scarlet Fever.	Diphtheria.	Whooping-cough.	Typhus.	Enteric (or Typhoid) Fever.	Simple continued Fever.	Diarrhœa.
West	561359	...	13	...	...	3	...	...	...	4
North	751729	3	18	1	...	12	1	8	...	2
Central ...	334369	...	17	3	...	10	1	2	...	2
East	639111	1	14	9	1	11	2	...	...	2
South	967692	...	12	9	1	14	3	1	2	4
Total	3254260	4	74	22	2	50	7	11	2	14

METEOROLOGY.

From Observations at the Greenwich Observatory.

Mean height of barometer	29·845 in.
Mean temperature	43·6°
Highest point of thermometer	55·0°
Lowest point of thermometer	30·2°
Mean dew-point temperature	40·7°
General direction of wind	W.S.W.
Whole amount of rain in the week	0·61 in.

BIRTHS and DEATHS Registered and METEOROLOGY during the Week ending Saturday, January 24, 1874, in the following large Towns:—

Boroughs, etc. (Municipal boundaries for all except London.)	Estimated Population to middle of the year 1874.*	Persons to an Acre. (1874.)	Births Registered during the week ending Jan. 24.	Deaths Registered during the week ending Jan. 24.	Temperature of Air (Fahr.) Highest during the Week.	Lowest during the Week.	Weekly Mean of Mean Daily Values.	Temp. of Air (Cent.) Weekly Mean of Mean Daily Values.	Rain Fall. In Inches.	In Centimetres.
London	3400701	45·1	2358	1492	55·0	30·2	43·6	6·44	0·61	1·55
Portsmouth ...	120436	26·8	79	45	55·0	29·0	46·3	7·94	0·83	2·11
Norwich	82257	11·0	63	34	55·0	27·5	41·7	5·39	0·32	0·81
Bristol	192889	43·3	130	78	52·5	34·0	44·0	6·67	1·29	3·28
Wolverhampton ...	70896	20·9	49	28	52·8	30·9	42·3	5·73	0·53	1·35
Birmingham ...	360892	43·0	307	185	53·0	31·6	42·6	5·89	0·71	1·80
Leicester	106202	33·2	124	36	52·7	30·0	42·0	5·56	0·44	1·12
Nottingham ...	90894	45·5	51	37	52·8	28·7	41·3	5·17	0·55	1·40
Liverpool	510640	98·0	397	263	53·0	34·9	44·4	6·89	0·28	0·71
Manchester ...	355339	82·8	281	189	52·7	31·0	43·3	6·28	0·31	0·79
Salford	133068	25·7	127	68	53·4	29·8	42·9	6·06	0·34	0·86
Oldham	86281	18·5	81	57	50·0	...	...	...	0·40	1·02
Bradford	163056	22·6	125	67	52·8	33·6	44·4	6·89	0·59	1·50
Leeds	278798	12·9	222	156	53·0	33·0	43·4	6·33	0·38	0·97
Sheffield	261029	13·3	214	99	53·0	32·5	43·7	6·50	0·18	0·46
Hull	130996	36·0	117	45	52·0	26·0	41·1	5·06	0·20	0·51
Sunderland ...	104378	31·6	77	41	...	...	...	...	...	...
Newcastle-on-Tyne	135437	25·2	98	83	50·0	30·0	40·9	4·94	0·49	1·24
Edinburgh	211691	47·8	133	102	...	...	...	...	...	...
Glasgow	508109	100·4	365	266	51·9	32·0	41·6	5·33	1·32	3·35
Dublin	314666	31·3	164	150	50·0	34·3	40·9	4·94	0·40	1·02
Total of 21 Towns in United Kingdm	7618655	36·6	5562	3526	55·0	26·0	42·8	6·00	0·54	1·37

At the Royal Observatory, Greenwich, the mean reading of the barometer last week was 29·85 in. The lowest was 29·42 in. on Sunday evening, the 18th inst., and the highest 30·28 in. on Thursday morning.

* The figures in this column for the English towns are the numbers enumerated in April, 1871, as finally revised at the Census Office, and raised to the middle of 1874 by the addition of three years and a quarter's increase, calculated on the rate which prevailed between 1861 and 1871. The population of Dublin is taken as stationary at the revised number enumerated in April, 1871.

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ORIGINAL LECTURES.

CLINICAL LECTURES

DELIVERED IN UNIVERSITY COLLEGE HOSPITAL.

By CHRISTOPHER HEATH, F.R.C.S.,

Surgeon to the Hospital, and Teacher of Operative Surgery in University College.

ON TWO CASES OF CANCER OF THE BREAST.

GENTLEMEN,—You have lately seen me operate on two patients suffering from cancerous disease of the breast of different characters—in one the appearances being those of the common hard or scirrhous tumour, whilst the other had the characters of the more rapidly growing and softer or encephaloid variety of disease. The first patient was a married woman, aged 46, who had already had some surgical experiences, since she had been successfully operated on by Dr. Meadows two years and a half before for an ovarian tumour of a non-malignant character. She has never had any family, but six years ago she noticed a small tumour in the breast, which, however, gave her no trouble until after the removal of the ovarian tumour, when it began to be painful and to increase in size. The nipple became retracted a year ago, and there could be no doubt at the time of her admission here that the tumour was an example of scirrhus. The patient was quite sure that the present tumour is the one which has existed for so long; and probably she is right, for six years back would make her forty, which is a very common age for the development of cancer, but late for the formation of the chronic mammary tumour so frequently found in young women in connexion with uterine or ovarian irritation. One can quite understand, too, that the disease, which appears to be hereditary (for her mother died of cancer of the stomach), may have been kept in check by the rapid growth of an ovarian tumour, and have taken on greater activity when that drain upon the system had been removed. The diagnosis of the disease in this case was exceedingly easy—the hardness, shooting pain, and retraction of nipple and surrounding skin sufficiently marked its nature. But let me warn you not to be misled by simple retraction of the nipple, for it is quite possible to have a non-malignant tumour with some retraction of the nipple (particularly in a woman who, like our patient, has not borne children); and, again, scirrhus may be developed in the breast too far from the nipple for it to be affected. If, however, the skin either around the nipple or elsewhere is fixed to the breast or is brawny and tough, so that it moves in patches instead of sliding easily over the subjacent parts when pressed upon with the fingers, it is a pretty sure sign of cancerous disease. In this patient no glands in the axilla were affected, as they so commonly are in cancer of the breast; and this fact is not to be wondered at since the recent researches of Cornil and Ranvier have shown that the lymphatics communicate directly with the interspaces in the fibrous stroma of the scirrhous mass in which the cells are lodged.

The second patient was a robust-looking married woman, aged 40, the mother of three children, sent up to me from Kent, with a large tumour of the right breast, measuring sixteen inches in circumference at its base. Nine months before admission she first felt shooting pains in her breast, and discovered a small lump, which rapidly increased in size; but the nipple remained unaffected until a month before admission, and was then only slightly retracted. The skin was rather œdematous than brawny in appearance, and showed several large veins ramifying in it; it moved freely on the breast, which was, however, more adherent to the chest-wall than natural. There was a gland of the size of a walnut in the axilla. All the appearances were those of rapidly growing cancer, of a softer form than in the other case, and I had no hesitation in recommending immediate removal.

I have spoken of these two breasts as examples of different diseases,—and so they are clinically, which is the point of view from which we as surgeons must regard them,—but you must not expect to find any difference in the histological elements of the two tumours, for these are identical, though differing in their proportions, in the two cases. In the beautiful illustrations of the microscopic appearances of cancer by Mr. Arnott which I show you in the first volume of Holmes's "System of Surgery," you will see no difference between the cells of scirrhus and medullary cancer, but a very great difference in the proportion which the fibrous tissue bears to the cells in the hard as compared with the soft variety. These drawings serve, too, to illustrate the unity of the disease; for Mr. Arnott has selected a lymphatic gland secondarily affected by a scirrhous breast to illustrate typical medullary cancer, instead of taking a primary growth in the testicle or elsewhere. The naked-eye appearances of the two breasts, however, as you can see even now, are very different, the scirrhous tumour being small, hard, and tolerably well-defined, and its section resembling an unripe pear; whilst the medullary is larger, and, though hard in parts, was (as mentioned by Mr. Godlee, the registrar, in his report) so soft in others as to give the sense of fluctuation. Connected with this last tumour is a considerable portion of the great pectoral muscle, and we have also a number of axillary glands—points to which I shall refer in speaking of the operation.

Now, before describing the treatment actually adopted in these two cases, it will be for us to consider what the prospects of these two patients would have been if left untreated. The first patient might, I believe, have been left alone for some little time without any serious mischief occurring, for the disease did not appear very active; and then she was one of those thin, spare women in whom cancer of the breast makes way but slowly, sometimes even appears to atrophy and become arrested completely. At the same time, no one can tell how soon her axillary glands might have become affected, and through them the lymphatic system generally; nor would it be possible to predict how soon the adherent skin might ulcerate and lead to an open wound. The patient was just in the most favourable condition for an operation, and I believe that by it her chances of long life have been extended. Sir Astley Cooper gave as the result of his vast experience two years for the full development of cancer in the breast, and from six months to two years more as the limit of the patient's life; but Mr. Sibley's statistics of the cancer-wards of the Middlesex Hospital give fifty-three months as the average of life when the primary disease is removed, but only thirty-two months when the case is left to nature. This is taking all cases of cancer together; but Mr. Baker's statistics are still more useful, since they separate scirrhus from medullary disease, with the following results:—In scirrhus, when left alone, the average duration of life is forty-three months, and when operated on, fifty-five months; in medullary disease, when left alone, life averages about twenty months, and when operated on, forty-four months. You will see, therefore, how poor a chance our second patient had if left untreated; and my own experience has fully convinced me that to leave a rapidly growing cancer of the softer variety to burst through the skin and form a large fungating mass beneath the patient's face is great cruelty, when it is still possible, by even a severe operation, to give some months of comparative comfort, and to render the disease, when it returns, much less offensive and trying to the patient, by ridding her of the bulky breast.

To do good, however, in any case of cancer, the treatment must be very thorough; for any treatment, whether by the knife or caustic, which does not remove the whole of the disease, only does harm by stimulating the part left to increased action. In the case of the breast, it is, I believe, impossible for any surgeon to be sure that he has removed every germ of disease unless he extirpates the entire breast; and this is the rule I always follow, though I am sorry to say it is not universally accepted. Dr. Hughes Bennett many years ago called attention to the fact that the microscope showed disease in tissues apparently healthy when in close proximity to diseased organs; and the late Mr. Charles Moore directed attention especially to the mischief of inadequate operations in cases of cancer, in a paper which you may consult in the fiftieth volume of the *Medico-Chirurgical Transactions*. To do your patient justice, you must remove the entire breast in all cases, with all skin which may be the least implicated so as to have lost its healthy softness, any of the pectoral muscle which may be involved, and all enlarged axillary glands. The incision you should employ is, I believe, a matter of perfect indifference, though in the majority of cases the common elliptical ones above and below the nipple are satisfactory. But you must vary your incisions according to the amount and position of skin involved; and, so long as you contrive that your wound shall have a good drain, its direction is unimportant. After the first incisions, I recommend you to make a very sparing use of the knife, and to trust very much to your fingers. You will find no difficulty,

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unless the patient is unusually thin, in stripping up the skin and its subjacent fat from the breast with your finger, aided by an occasional touch of the knife; and this plan has the advantage of securing you against slicing small portions from the breast or of making "button-holes" in the skin. You can also better appreciate when you have reached the thin border of the breast, and so avoid leaving some of it behind, as is too often done. Forcibly raising the border of the breast, the surgeon at once ascertains whether the pectoral muscle is involved or not, and if it is, he should in my opinion, not scruple to cut into it freely, so as to remove, if necessary, a considerable portion of the muscle; and here again hæmorrhage will be saved if the fibres are torn as much as possible. In removing the axillary glands, it is especially desirable to be chary of the knife, both on account of hæmorrhage and because the finger can hook them out so much more satisfactorily than any instrument. In cases of extensive glandular affections it is necessary to lay open and clear out the axilla almost if for a dissection; and though, fortunately, the principal glands lie along the edge of the pectoralis, I have been obliged to expose a couple of inches of the axillary vein on more than one occasion, but without any harm resulting. It is common enough to expose the subscapular vessels and long subscapular nerve; but, by using the finger entirely, I have never had any trouble from hæmorrhage. It has been proposed to cut across the pectoralis major in severe cases, so as to insure a removal of all the disease; but I have never found it necessary to do this, for it is, I find, perfectly possible to pass the finger up to and beneath the clavicle, and no more would be gained by the division of the muscle.

After completing the removal of a breast, I am in the habit of mopping out the wound very freely with the solution of chloride of zinc recommended by Mr. De Morgan, both on account of its antiseptic qualities and its possible effect upon any cancer-germs left in the tissues. I used to employ it of the full strength (gr. xl. ad ʒ j.), but I fancied that it now and then caused the skin to slough, and I have therefore reduced it to one-half the strength, and I think with advantage. In closing the wound, it is most important to leave a sufficient and dependant opening for drainage, and this is most conveniently placed near the axilla; and for a dressing I find nothing so satisfactory as oakum or carbolised tow, for the supply of real oakum has failed. This soaks up the discharge, and allows it to permeate, and hence keeps the wound dry, which I take to be the great point in favour of rapid healing and limited suppuration. It is convenient to place a piece of gauze between the skin and the oakum, so as to prevent the latter adhering, and to cover the oakum with a folded towel to absorb the moisture, which is abundant at first.

To return now to our two patients. The first, Martha W., was operated upon on June 4 by two elliptical incisions, which included the involved skin; and there being only limited disease and no enlarged glands, the operation was exceedingly simple. The few vessels that bled were twisted, and the wound was treated in the way I have described. She had very little constitutional disturbance (the temperature on only two days reaching 100°), and took her food well from the first. The dressings were changed on the second day, and renewed from time to time: and on the 17th the ward-clerk, Mr. Symonds, reports—"The flaps have firmly united to the tissues beneath, and at their edges firm healthy granulations are forming. Patient's health is exceedingly good; takes her food well; gets up in the afternoon with the arm in a sling." She was finally discharged on July 4 with the wound all but healed, having been in the hospital thirty-one days.

The second patient, Emma M., was operated upon on June 11, and the operation was altogether of a more serious character. The disease involved the skin extensively; the breast was firmly adherent to the pectoral muscle, and the axillary glands were affected. I made my incisions wide of the nipple, and easily stripped back the skin over the breast; but I was conscious as I did so that the skin was not healthy, and that more of it had been affected than was supposed. Finding the pectoral muscle extensively involved, I tore rather than cut away nearly the whole of the sternal portion of it, leaving the pectoralis minor fully exposed, and then twisted the bleeding points, which were rather numerous. Next I proceeded to enucleate the enlarged axillary glands with my finger; and, lastly, returning to the skin, I cut away all the infiltrated portion, which comprised almost the whole of the flap ordinarily left. Of course, under these circumstances, it was not to be expected that the wound could be closed, and after sponging it out with chloride of zinc, I simply drew the skin together as far as possible with strips of plaster, but left an interval of some five inches between the edges; gauze, oakum, and a bandage were then applied.

After such a severe operation as this, it was necessary to keep the patient up, and she was ordered brandy ʒ j. every two hours. You will find that teaspoonful doses of brandy are better as a rule than tablespoonfuls after an operation, and that it is more satisfactory to give the small dose every hour or every two hours than the large one at longer intervals. She rallied well, however, from the immediate effects of the operation, and the next day the pulse was 120 and the temperature 100°; she had had a good night, and took beef-tea and milk. On the second day (13th) the temperature had gone up to 102°, and the pulse was 120. The wound was dressed, the carbolic spray being used simply to cleanse the surface and not with any special antiseptic view. It measured six inches by seven inches and a half. Strips of plaster were reapplied to hold the parts together as much as possible, and the gauze and oakum were renewed. On the next day (14th) the temperature had fallen to 101°, and the pulse to 100. By the 17th, suppuration was established, and the chest-wall was coated with healthy matter and was granulating. On the 20th, eight skin grafts were placed on the granulating surface by the house-surgeon, Mr. Skerritt, and the strapping to the neighbouring skin was continued. By the 24th we found that four of the grafts had taken well; and on the 29th, ten more grafts were inserted. Several of these lived, and by July 7th it is noted that the skin is growing rapidly from the edges of the wound. From this date I allowed the house-surgeon to dress the wound with Mr. Lister's boracic lint, but I cannot say I think it derived any special benefit from the application. I have more faith—possibly because more experience—in the use of a slightly stimulating lotion, such as the red lotion of sulphate of zinc, or a nitrate of silver lotion of two grains to the ounce. On the 26th, six new grafts were inserted at various points in the granulating surface, and all did well; and by August 1 the patient was well enough to go out for a walk, the wound being very much contracted, and healed in great part. She was finally discharged on August 17, with the wound entirely healed except at the lower and inner angle, having been in hospital seventy days.

These two cases serve to illustrate the more simple and more severe methods of treating cancer of the breast. Of course, I do not pretend to have cured these patients; and anyone who professes to "cure" a cancerous breast is a charlatan. Unfortunately, we know too well that in all probability there will be a return of disease in both cases, but in one much sooner than in the other. Mr. Baker's statistics give fourteen months as the average date of return in scirrhus, and seven months for medullary disease, and our first patient has therefore a much better prospect than the second. Still, even with the prospect of early return, I am sure that the patient's condition now is better than it would have been had the disease been allowed to go on and break through the skin, when she would have been exposed to all the miseries of an open soft cancer. I have been obliged to operate in a case where the disease had already broken through the skin and the patient was in great misery; and here, although the wound never completely healed, the relief afforded was very great by the removal of the offensive mass of disease always present before the patient's face. It is much more satisfactory, of course, when the patient's condition allows of healing; and with the modern practice of skin-grafting to fall back upon, we are able to be less scrupulous than formerly about removing a considerable quantity of skin.

THE FRENCH PARLIAMENTARY COMMITTEE ON INFANT MORTALITY.—This Committee has summoned M. Brochard, of Lyons, and M. Monot, of Montsauche, the two practitioners who have aroused public attention to the terrible mortality of nurse-children, in order that they may lay their statements and proofs before it. It seems that their declarations that the mortality of nurse-children and foundlings varies in different departments from 11 per cent. to 70 per cent., according to the amount of medical inspection existing in these, have greatly impressed the Committee, and that their statements have been confirmed by several of the deputies representing the departments concerned. They have also succeeded in showing that the official returns furnished by the Administration are almost always erroneous.—*Union Méd.*, January 20.

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ORIGINAL COMMUNICATIONS.

CASES OF NEUROSAL HEADACHE.

By C. HANDFIELD JONES, M.B. Cantab., F.R.S.,
Physician to St. Mary's Hospital.

(*Continued from page* 124.)

Case 3.—Mr. ——, aged 20, subject to headaches all his life to some extent—worse since spring; they occur now twice a week, badly enough to incapacitate him from work. Running across the road, or any trifle, will sometimes bring on headache. It is worst on the right side—sometimes is all over the head. Pressure relieves the head. There is no tenderness, no sickness. Digestion not strong; beer disagrees. Both parents were gouty. He has had pain of great toe, and swelling of knuckles of right hand. Can read two hours, but not more—his head begins to ache, and he gets giddy. Bowels costive; this does not seem to affect his head. Gets a good walk most days. Has had inflammation of lungs twice; is very subject to catarrh; otherwise has good health. Finds a tonic of acidi nitromuriat. dil. ℥xv., tinct. cinchonæ ʒj., decoct. cinchonæ ʒj. ter die soon stops the headache. Advised to take ol. morrh. ʒij. semel die in addition to the bark and acid.

Noteworthy points here are—the marked gouty diathesis; the innate tendency to headache; the slight causes sufficient to induce an attack; the absence of nausea and sickness, though the stomach was rather feeble; and the beneficial effect of tonics.

Case 4.—Mrs. A. is subject to attacks of headache, of which the following is a description:—She wakes in the morning with lassitude, nausea, disinclination to food, and pain behind the eyes. After she gets up the pain increases, light becomes intolerable, movement disagreeable, exertion impossible; all that she cares for is to lie quite quiet, to be in the dark, and to have a little tea or coffee. This state lasts from about 8 a.m. to 6 p.m. She used to have the same kind of attacks in early life, but they became much less severe after she married, except at the monthly periods, until the last year, when she has had much trouble and worry. The catamenia have ceased about a year. She has become much stouter of late. Her appetite is now very bad. I prescribed strychnia and ol. morrh., with which she benefited very much; the attacks became less frequent, and she was able to exert herself and take food. After about four months she went into the country, and rode about a good deal. She returned two months later very much improved, with a good colour and stronger, as well as stouter. She had been free from headache for a long time. I questioned her as to the seat of pain—whether it was within the head or on the exterior. She was clear that the pain was inside; it seems to her when she suffers that the pain is behind the eyes, or near the temples, or at the back of the head; it feels to her as if her head was full of stones. The pain is quite unlike that of neuralgia or rheumatism, or pain in other parts. The subject of this case is a lady of well-ordered mind and considerable intelligence. She is prone to suffer with depression of nerve-power, but not with any special malady. Her description plainly indicates a cerebral affection, having much analogy to delirium, in which hyperæsthesia seems to predominate, and the occurrence of which is markedly promoted by all causes of exhaustion, and obviated by invigorating remedies. The tendency of the disorder to supervene in the early morning on waking, when the brain had been long anæmic, is noteworthy.

Case 5.—Miss B., aged 23 (?), a healthy-looking young female, has been suffering eight years. Her mother suffered frightfully with headache; an aunt also suffers, and her brother suffers also, but less often and less severely. She has attacks twice a week now; formerly she did not have them so frequently. The pain begins as a dull, heavy feeling at the back of the neck or top of the head, and becomes most excruciating at the left temple. It often comes on when she awakes in the morning, and lasts all day. She has more or less nausea all the time the pain lasts, and when she vomits it relieves the pain. When the head is in pain she cannot give attention to anything—cannot lay her head down, it feels so tender; is obliged to sit up. Feet not cold while the pain continues; face sallow, pale, and wretched-looking during the attacks. Riding in a carriage, or on horseback, or any exposure to cold, brings on the neuralgia,—riding especially makes her wild.

Remarks.—In this instance hereditary tendency was strongly marked. The influence of cold, of jolting, and—as in the last case—of the waking hour in the morning, in inducing a paroxysm; the attendant nausea, and the relief afforded by vomiting, though anything like loading of the stomach seems out of the question; the tenderness of the scalp or cranial bones, showing implication of their nerves; the sallowness and collapsed condition of the face during the attacks, indicating external if not internal anæmia,—are all noteworthy features.

Case 6.—Mrs. B., an elderly, strong-made female. The catamenia have ceased ten years, and her health has been much better since. She has suffered from girlhood with sick headaches; they used to be very frequent and severe, but are much less so now. They used to occur once or twice a week without apparent cause, setting in sometimes quite suddenly, and would last all day till bedtime. She used to vomit with these headaches, and does so still; the vomit is yellow bilious stuff. She can take no food the day she has the headache. The only other trouble she has at present is a chronic inflammation of the eyelids, attended with much irritability.

Remarks.—The persistence of the headaches into advanced life is the most notable feature of this case.

Case 7.—Mrs. G., aged 25 (?), rather tall and slight, not at all anæmic, married fifteen months, resides in fenny district of Lincolnshire. Had ague five or six years ago for some time; got rid of it by going to another locality for a while. Since the ague she has suffered severely at quite irregular intervals from headache affecting the left temple, attended with anorexia, nausea, and a peculiar pain in the chest. These attacks last a variable time—sometimes three days; her face is extremely pale at these times, and she finds any noise very distressing; they leave her very weak. A cup of tea will sometimes do good; purgatives do not. Her temper has been rendered irritable by this disorder, and she has lost flesh. She feels often very nervous. The attacks are sometimes two or three months apart, sometimes only a few weeks. Sometimes over-fatigue—as a long walk—seems to bring on the attacks. Bowels regular; tongue clean; no indigestion of any consequence. Porter agrees with her, but not ale nor port wine; the latter makes her head worse. No other ailment except a little red papulous eruption at the back. I prescribed for her strychnia gr. $\frac{1}{30}$th, with nitric acid ter die, compound syrup of the phosphates, tr. cannabis indic. at the time of the headache, and an atropia liniment. No improvement was produced by this treatment in two months. I suspect she should have had bromide either with or followed by quinine.

Remarks.—The most noteworthy feature in this case is that the disorder, which was essentially migraine, seems to have had its origin in malarious fever.

Case 8.—Mrs. ——, aged 54 (?). Has always been delicate; she suffered in the same way as at present when young, but much less, and at long intervals; the last four years the attacks have been very troublesome. Menopausis occurred three or four years ago. Her digestion is generally weak, and she has at times a pricking sensation about the scapulæ, which warns her that an attack is impending. She is rather anæmic, but has had no special illness. Some years ago she had a pain which began in the left little finger, and in a few days travelled up the arm to the shoulder and side, where it settled, and was severe for six months. It was cured by Sir B. Brodie, who regarded it as of stomach origin. Last four years has suffered with a burning sensation in tongue, which prevented her at one time from taking wine unless diluted, or pepper, or anything hot. She suffers less in this way now. Tongue has been red, is now whitish; pulse 60, regular; bowels costive usually. Perspires very readily; even in cold weather the smallest exertion will throw her into a violent perspiration. She used to sleep badly, but does now pretty well. No family history of nerve disorder. Her husband and her eldest boy have just the same attacks as she has, and a girl—one of her six children—has violent head-pain, with occasional bilious attacks. She is sometimes several weeks without an attack. When her attacks are threatening she dreams much, and even if she closes her eyes in a chair her brain perceives all sorts of objects. The attacks often come on very suddenly; they occur sometimes at night. She knows this by waking up with a violent pain at the top of her head and forehead, which always follows the attacks, and lasts a varying time (it may be two or three days), when the attacks go on recurring. In the attacks her vision is obscured; everything seems in a cloud; but she can walk steadily. The obscuration of vision

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generally attended with hemiopia; she sees half of things and phantasmata with bright colours like Chinese puzzles floating about at the side of her head. Her spirits at the same time become extremely depressed, and she feels very unwell. This condition lasts from ten to fifteen minutes, and is most speedily removed by lying down and keeping quiet; if she keeps in motion it will last much longer. During this time she cannot collect her ideas, give directions to servants, or read a book—in fact, she cannot exert her mental faculties until the headache has quite passed off. During the attacks her head feels full, and she thinks her face is red. She asks if she could have caught the disorder from her husband, who has had epileptic fits. Her attacks before her marriage were slight. I advised K. Br. gr. xx. o. n., and strychniæ gr. $\frac{1}{24}$, acidi nitrici ℥ij., spt. chlorof. ℥x., aq. ℥j., bis die.

I did not see her again for sixteen months, when she told me she only took the medicine a few days, and then, feeling better, put it aside. The attacks before complained of had become much less since she had kept her bowels more open by taking Marshall Hall's pills; but she had got so very weak and depressed that she was quite unfit for any exertion, and everything was a burden to her; she was constantly crying, and was besides irritable and cross at the merest trifle. She has had a good deal of severe pain all over the abdomen—a sort of sensation as if the viscera were being screwed up; it is distinctly brought on by taking food. This has ceased now. She has a great deal of neuralgia in the head, and, indeed, all about her. Cannot sleep at all if she is excited or fatigued in the evening; sleeps well otherwise; better if she has had a nap before retiring. She gets at times a dull, cold, numb, stupid feeling in the head, and is unable to think. Wine does her good. She had improved materially during a five weeks' stay at the seaside, where she had rest from domestic cares. I added to my former prescription of strychnia a small dose of cod oil, and bade her also to try hypophosphite of soda, with liq. cinch. flav. if the strychnia failed.

Remarks.—The above history is of great interest on account of the variety of phenomena which throw light on the fundamental morbid state. The nervous system was evidently infirm, and though she did not admit having received this defect by way of inheritance, it is clear it has been transmitted to two of her children. Her inquiry whether she could have taken her disorder from her epileptic husband is not perhaps to be wholly set aside as impossible. Impregnation does seem to modify the system of the female profoundly, as the facts observed by breeders prove, and it is perhaps not to be denied that some injurious effect might be produced by an epileptic man on his spouse. The liability of the patient to profuse perspiration on slight exertion tells of atonic vasal nerves. The neuralgia of the arm and the lingual hypersesthesia have, I think, no special significance beyond that of indicating infirmity of the nervous system. The premonitory scapular pains are noteworthy, as well as the sudden invasion of the attacks, and their occurring sometimes at night. In these respects an affinity to epilepsy is manifested. The visual derangement must have depended, I think, on change in the centres, just as the depression of spirits and clouding of the mental faculties undoubtedly did. The subsidence of the attacks, and the substitution of ordinary nervous depression with an abdominal or facial or more general neuralgia, the occasional torpor of the mental faculties, the liability to insomnia from slight causes, and the beneficial effect of rest, all coincide with previously remarked features to prove that the fundamental pathological state was one of feeble and imperfect life of the nerve-cells in the various centres.

(*To be continued.*)

ON BASIC CEREBRO-SPINAL MENINGITIS.(a)

By THOMAS STRETCH DOWSE, M.D., F.R.C.P.,
Medical Superintendent of the Central London Sick Asylum, Highgate.

(*Concluded from page* 126.)

Post-mortem Appearances (twenty-four hours after death).—The dura mater was found to be healthy, and upon removing the brain and its membranes it weighed forty-three ounces. There was no marked hyperæmia of surface. The sub-arachnoid space contained a considerable quantity of fluid; yet over the surface of the hemispheres there was no inflammatory change. The substance of the hemispheres, as well as the central ganglia of the lateral ventricles, was healthy; the latter contained a normal quantity of fluid. Upon exposing the base of the brain to view, it gave at once the characteristic smell and appearance of gangrene. Over the surface of the anterior lobes, as well as over the middle and posterior, the arachnoid membrane was thickened and of a semi-opaque appearance, but in the immediately central line over the parts forming the floor of the third ventricles, and on either side in connexion with the middle lobes, pons Varolii, crura, and medulla oblongata, it was thickened, opaque, and fibrillated. Over the surface of the lobes of the cerebellum, on each side of the medulla, the membranes, both pia mater and arachnoid, were striking, and of a dirty green colour. Upon their removal, the brain-substance underneath was found to be softened to the depth of a quarter of an inch, and presented the same characteristic features, and so did also the parts forming the floor of the fourth ventricle. The same condition pertained to the parts forming the floor of the third ventricle, as well as the corpora quadrigemina and geniculate bodies. The right and left crus were considerably disorganised, and of a greyish-green colour to the depth of about half an inch. The arteries forming the circle of Willis, as well as the anterior inferior cerebellar arteries, were firmly bound down by inflammation. The substance of the pons and medulla was apparently healthy. The cord with its membranes when removed weighed fifteen drachms. Upon slitting up and reflecting the dura mater, the anterior surface of the cord was found coated in the cervical and dorsal regions with a layer of thick, purulent, lymphoid corpuscular material; it presented, like the brain, a stinking odour, and in parts a greenish colour. The arachnoid and pia mater could not be separated; they were adherent to the substance of the cord itself. All hyper-vascularity, if it had existed, was only to be found at the extreme ends of the cervical portion on the one hand, and the lumbar on the other. Between these extremities the substance of the cord differed in different parts. In the dorsal region it was considerably softened, and about the origin of the sixth, seventh, and eighth pairs of nerves it was of the consistence of thick cream, and presented a mottling of a greenish-blue colour, and a putrid smell. In the cervical and lumbar regions, where the cord had undergone the least change, the posterior columns were found to be comparatively healthy.

These, then, are the clinical record and post-mortem appearances of a case which I beg to call occipito-spinal, or basic spinal meningitis. And, if it be analysed, we shall find the following special features in contradistinction to the cerebro-spinal meningitis or so-called spotted fever:—

1. Etiology: As I before stated, it appears to originate not from any special morbific agent, but from some exciting or predisposing cause, which lowers the tenuity of the blood and the vitality of the individual. In this case the patient was suffering from primary syphilis, and this poison, without doubt, in addition to her habits of intemperance and exposure, reduced her to what might be called the very extreme of prostration. But that the syphilitic virus *per se* centred itself upon the cerebro-spinal meninges, producing the primary inflammation, I must say I do not for one moment believe.

2. It will be seen that the sensorium throughout the whole course of the disease was, until within twenty-four hours of her death, unaffected.

3. The onset and progress of the paralysis gave indication that the meninges were not primarily inflamed, or, if they were, it was simultaneous with inflammation of the peripheral substance of the cord and brain.

4. There were acute muscular pains, with defective motor muscular power, for some days prior to the signs indicative of defective sensation, such as formications, "pins and needles," numbness, and absolute anæsthesia.

5. There was no retraction of the head, nor marked reflex irritability or tetanic muscular contortions.

6. The special senses were but slightly, if at all, impaired.

7. The temperature was as high as 105°, whereas in epidemic cerebro-spinal meningitis it rarely rises above 100°.

8. Throughout the disease no maculæ made their appearance, but the slightest irritation or pressure produced hæmorrhagic purpura, first from excitation, and subsequently from paralysis of the vaso-motor nerves.

9. That the absence of reflex irritations and convulsive spasms was due, in all probability, to rapid change in the grey matter.

(a) Read before the Medical Society of London, December 15, 1873.

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In reference to treatment, there are many points of interest and of considerable moment; and I will first draw attention to the importance of freeing the patient from all external sources of irritation. As there will in all probability be intolerance of light, it must be excluded as much as possible; and intolerance of sound must not be forgotten. The patient ought to be placed upon a water- or air-bed from the first, and have the body sponged once or twice daily with equal parts of spirit and water. The skin ought then to be wrapped in cotton-wool. Under any circumstances the limbs must be kept, if possible, lower than the trunk, and made warm. This is necessary for two reasons—first, to relieve the cord from passive hyperæmia; and secondly, to reanimate the failing nutrition of peripheral nerve-tissue. The position of the trunk is also of consequence for the first of the two reasons. The head and shoulders should be slightly raised from the reclining posture, and the patient tilted from one side to the other three or four times during the day—all this to relieve venous congestion, and to prevent, as far as one can, the increase and continued localised pressure of effused fluid. It would be far better, no doubt, to keep the patient constantly lying upon the anterior part of the body, but this, for several reasons, I have found to be impracticable for any length of time together.

Now for therapeutic means. In my opinion there is no disease requiring more constant watching or careful medical interference than that now under consideration. I have seen an acute meningitis and myelitis treated with those drugs which produce congestion—for instance, opium and strychnine. Nothing can be productive of more harm than their administration in the first or acute stage.

1. As we have to consider how to relieve the vessels of the cord and to equalise the action of the vaso-motor system of nerves, nothing appears to me of greater service in effecting this than the ergot of rye and belladonna. The former I prescribe in decided doses, such as half a drachm of the powder every four hours; and the latter I apply to the spine in the form of a belladonna paste, made by mixing the extract with one-third its weight of glycerine.

2. To check the reflex vomiting, small pieces of ice must be swallowed, not sucked, as the full effect of its sedative influence upon the stomach is then attained.

3. To relieve constipation, I prefer the administration of a pill of the watery extract of aloes, for the reason that it acts upon the mucous membrane of the rectum and dilates the hæmorrhoidal veins.

4. To relieve sleeplessness, both chloral and bromide of potassium have proved ineffectual; but what I found of most service was a suppository of eight grains of the extract of henbane with four of the extract of conium.

5. One essentially practical point must not be forgotten—namely, to keep the paralysed bladder constantly free from urine. It is not sufficient to draw off the water night and morning, which is the course usually adopted, but a self-retaining catheter (b) must be kept continually in the viscus.

6. In reference to diet, it ought to be both nutritive and stimulant from the first.

7. There is a stage in the treatment of this disease where quinine in large doses becomes of the most signal value. I refer now to that crisis when exhaustion appears imminent—the skin covered with sweat; sudaminæ and bullæ over the body; temperature 102° to 105°; pulse small, weak, and over 120. But more especially is quinine invaluable when rigors supervene. I never fail to see its good effect. But it must be given in ten or even twenty-grain doses; and, if the stomach cannot tolerate it, it must be introduced into the system by the rectum.

8. I should not advise the detraction of blood, either local or general.

This, then, is the complete history as to etiology, symptoms, pathology, and treatment of a case which I venture to call basic cerebro-spinal meningitis, in contradistinction to the sporadic cerebro-spinal meningitis. And I must, before concluding, call your especial attention to the unusual result of the pathological change in the nerve-matter as well as in the membranes of the nerves and cord. It is not an uncommon thing to find after cerebritis or meningo-myelitis that the nerve-substance, as well as the inflammatory exudations, have become converted into material varying in character and degeneration. These are generally found to be of a corpuscular organisation, of a greenish or yellow colour, and of a gelatinous consistence. But in this case we have a still further change—viz., that of gangrene. I have never seen anything like it before, neither can I find a similar case recorded except in that given by Olivier, and noticed in Aitken's "Practice of Medicine." But here the dura mater of the lower spine had ulcerated and ruptured, and was in communication with an abscess of the muscles in the lumbar region. The subject of this case had for some time previous to her death a large and sloughing bedsore, and I am quite unable to say whether or not this condition had anything to do with the state in question, although, speaking inferentially, I should without hesitation say such was not the case.

For my own part, all things being considered, I am led to the conclusion that the gangrene was the result of devitalisation and impaired nutrition producing rapid metamorphosis of tissue.

(b) This I have had made for me by Messrs. Coxeter. See *Lancet*, September 6, 1873.

REPORTS OF HOSPITAL PRACTICE
IN
MEDICINE AND SURGERY.

LONDON HOSPITAL.

A SERIES OF CASES ILLUSTRATIVE OF CEREBRAL PATHOLOGY: CASES OF INTRACRANIAL TUMOUR.

(Under the care of Dr. HUGHLINGS-JACKSON.)

(*Continued from page* 96.)

THE following case is one referred to in the third Lecture (November 15, 1873, page 542, second column) when speaking of difficulties in the diagnosis of the exact cause of acute cerebral disease—of what Trousseau calls "cerebral fever." The difficulty was betwixt tumour of the pons Varolii and tubercular meningitis.

Case 10.—*Tumour of Pons Varolii—Acute Illness like Tubercular Meningitis.*

A boy twelve years of age was admitted an in-patient, November 5, 1872. He was observed to be slightly weak of the right side; he spoke thickly and swallowed badly; he complained little of headache, was quite sensible but depressed. See how like the illness was to some accounts given of tubercular meningitis. He had only been ill three weeks, and only in bed one week. He would come home from his work tired, and would go to bed at once, and in the morning he would be sick. One night he was delirious. It was only for a few days before admission that he had the headache. When I saw him on the 7th, there was a little but decided weakness of the right arm, and a trifling weakness of the left side of the face. We could not get him up to walk to test his leg. He was not insensible, but was lugubrious and in pain, and therefore was difficult to examine. There were no changes in the optic discs. At this time I do not see how the diagnosis could have been made betwixt intracranial tumour and tubercular meningitis. The possibility of tumour of the pons was considered, because of the "crossed paralysis"; but the paralysis was so slight that, considering the patient's condition, it might have been put down to the effects of meningitis in the Sylvian fissures. It is not at all uncommon to see hemiplegia and facial distortion with tubercular meningitis. The reader will ask what the temperature-chart showed. Most unfortunately it is not to be found; but I do not think it would have helped us. The temperature in an *acute* cerebral illness (whether that be from the "irritation" of a tumour, or whether from meningitis at the base) varies much. The patient's pulse was irregular in time and force: this sort of pulse certainly does not point to any one kind of acute cerebral disease. It was very well marked for weeks in a patient who died of hydatid cyst of the right cerebral hemisphere.

On the 11th there were found changes in his discs; they were uniformly and smoothly swollen, and merged insensibly into the fundus. They were such as I have now seen many times in tubercular meningitis, and I confess that their coincidence late in the case fostered the view I inclined to—that there was tubercular meningitis.

On the 13th there was found palsy of both external recti; but these symptoms in a patient with acute cerebral disease would

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not in a difficult case, I think, be of very much value either for or against tubercular meningitis. As it seems to me, the sixth nerve is one of the very first nerves to suffer in cases of cerebral disease: I mean that when all the nerves at the base are subjected to the same influence (basilar meningitis, or generally raised intracranial pressure, for examples) these are the first nerves to complain. I have, as in Case 1 (*Medical Times and Gazette*, November 16, 1872), seen them paralysed in a case of tumour of the cerebellum. (In cases of tumour of the cerebellum, the pressure in the cerebral cavity is sometimes much raised by increase of fluid in the lateral ventricles, the consequence of obstruction of the veins of Galen.)

The further course of the case need be given only shortly; there was no special alteration. The manner of death, however, is important. He was found dead at midday, November 16. As his hands were firmly clenched, and as his head was thrown back, it is probable that he died in a fit.

Autopsy.—There was flattening of convolutions from increase of fluid in the lateral ventricles. There was no meningitis, and no tubercle. There was a tumour of the pons Varolii.

The region of the brain the seat of the growth I forwarded to my colleague, Dr. Gowers, who kindly supplied the following report:—"Membranes of base red and congested; many distended vessels on pons. Pons Varolii: Under aspect considerably enlarged; the increase in size being chiefly in the left half, which had nearly twice its natural dimensions. In front it overhung the origin of the third nerve, projecting nearly a quarter of an inch beyond the level of the right side. Both sides of pons soft to touch, but the side enlarged felt especially pulpy and yielding. Colour of that side for the most part grey, translucent. On the projection which overhung the third nerve, the transverse superficial fibres of the pons coursed across a grey substance. Further outwards was a dark grey area, about the size of a shilling, corresponding in position to the origin of the fifth nerve, of which no trace could be found. The right fifth nerve was normal. On section, the whole left half of the pons appeared to be the seat of a new growth, which reached from its upper to its lower surface. The fourth ventricle was pushed to the right, quite out of the middle line, but was not involved in the new growth, which had pushed the raphe of the pons so much to the right that, although the space beneath the middle lobe of the cerebellum was entirely occupied by new growth, this had only crossed the middle line of the pons in about a quarter of a square inch in the centre of the pons, where it had extended for about an eighth of an inch into other side. Upwards, the growth extended along the upper aspect of the left crus for about a quarter of an inch, but had not involved the corpora quadrigemina; downwards, it did not quite reach the lower limit of the pons; outwards, it extended along the middle of the crus cerebelli for about a quarter of an inch. The colour of the new growth was reddish-grey, translucent; in places rather vascular. There was considerable congestion of the portion of the pons contiguous to it. Microscopic examination showed it to be composed of round and oval cells, $\frac{1}{1050}$ to $\frac{1}{3000}$ of an inch in diameter, with delicate outlines, and large nuclei $\frac{1}{3500}$ to $\frac{1}{1000}$ of an inch in diameter, nearly filling the cells containing them. Besides these there were many free nuclei, similar to those within the cells. No fibres or fusiform cells could be seen. The intercellular substance was scanty, granular, not fibrous. The tumour was thus a tolerably characteristic example of a 'medullary glioma.'"

Case 11.—*Tumour affecting the Surface of the Brain, giving rise to Hemiplegia of very gradual onset—Double Optic Neuritis.*

This case I saw in private with Dr. Evans, of Trinity-square, Southwark; but as it illustrates very well the slow onset of hemiplegia (see opening remarks on Case 9, January 24, p. 96), I give it here. In this case we had no doubt that there was tumour; the very slow onset of the paralysis was enough, as in Case 9, to lead us to that diagnosis, had there been no optic neuritis. As to its *general* position, there was no room for doubt. It could only have been of the opposite side of the brain. But I was wrong as to the *exact* part of that side of the brain affected. I thought it was of the motor tract itself, whereas it was of the brain-surface, or rather it squeezed the brain, not actually involving its substance. The hemiplegia must have been owing to squeezing of the subjacent motor tract. In all cases of very slowly coming on hemiplegia I have seen before, the tumour has been of the motor tract. That disease of the surface—even very limited disease there placed—will cause hemiplegia is well known, and is illustrated by several cases of this series; but in all cases I have seen, save this one, the hemiplegia has followed a convulsion; such hemiplegia is produced by a strong nervous discharge.

I think for my part that the injury had to do with the origination of the tumour. The autopsy showed that the intracranial disease was underneath the external swelling of bone. In a future case I should consider such a swelling very carefully with regard to the diagnosis of exact position of the intracranial tumour. Yet I would not, if the hemiplegia came on very slowly and without convulsion, decide for tumour of the hemisphere apart from the motor tract.

July 1, 1872.—A married woman, aged 47 (I give the notes nearly as they were written down at the visits I made to her). She is a *very* fat woman indeed. She has always been plump, but for some years past has been getting stouter. On the right side of her head is a hard lump, which I should call a node were it not said that it had been there eighteen years. It rises gradually from the bone. It followed a severe injury to the head. She was very ill after the injury, suffering—so she was told—from "concussion of the brain." She had a fall through a trapdoor a little before Christmas, but it does not appear that she suffered from it.

Her present illness is of about six months' duration. She has had severe pain in the head—evidently very severe; she has remarked that it is "not a common headache." She has had no vomiting nor retching, except on one occasion after taking some cod-liver oil.

About two months ago she began to lose power in the left leg. It is clear that this loss was very gradual indeed, and clear, also, that the leg was affected before the arm. There have been no convulsive seizures.

Now she cannot stand, and the attempt to walk, even with help, is absurd. She can move the toes and flex the knee slowly. In the arm there is more movement, and this is chiefly in the hand or forearm. She can open and shut the hand. There is no movement at the shoulder. The mouth is decidedly, but very slightly, turned to the right.

There is very well marked optic neuritis of the left eye. Most unfortunately I cannot get a look at the right one. (I saw it at a subsequent visit; there was then neuritis.)

The patient looks imbecile. She is probably a woman of naturally slow mind. Her husband, an intelligent, quiet man, thinks her mind and memory quite good, and he says that her temper keeps *very* good—a good sign in cerebral disease. Her only complaint is that she gives much trouble. Dr. Evans thinks her mind is good.

I noted these facts thus particularly because I think that intellectual failure is more marked in cases of disease of the right cerebral hemisphere, especially when there is that variety of hemiplegia in which the leg suffers more than the arm.

In this case the evidence does not appear to support my hypothesis; but we could not say with certainty that the mind of a woman who was physically incapacitated by paralysis, and who kept her bed, was not somewhat impaired. There was no special defect apparent, however. There is also to be considered the important fact that the lesion was one very slowly produced; the hemisphere was gradually squeezed. (See notes of next case.)

She died August 7.

Autopsy.—Thanks to Dr. Evans's kindness, I obtained a post-mortem examination, at which I had the advantage of Mr. Evans's (jun.) assistance. The hard mass on the right side of the head was found to be osseous—a sort of swelling of the bone. Subjacent was a tumour growing from the dura mater, of about the volume of a small orange. A section, including dura-mater tumour and brain-substance, was sent to my colleague Dr. Gowers.

The following is Dr. Gowers' report:—"The dura mater passes over the tumour, and from it the growth seems to spring. Elsewhere it is enclosed in a fine, delicate capsule, to which the surrounding brain-substance is adherent. Nowhere is the structure of the tumour continuous with that of the cerebral substance. The growth is composed entirely of cells, with very little intercellular substance, and no trace of a fibrous stroma. The cells are of two chief forms —1. Fusiform cells, of various lengths, from the ·001 to ·003 inch, and in width from the ·0003 to the ·0015 inch. In nearly all there is a conspicuous oval nucleus in the thickest part of the cell of about the same width as the cell itself, and a few granules both within the nucleus and within the remaining portion of the cell. 2. Round or oval cells ·0003 to ·0015 inch in width, and ·0005 to ·0025 inch

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long, each containing a large nucleus of the same shape as the cell and nearly filling it. In many cases there is a prolongation of the oval cell at one or both extremities. Between these and the fusiform cells there are abundant intermediate forms. Both these forms of cells occur in all parts of the tumour, but in different proportions. Those portions nearest the dura mater are composed chiefly of the fusiform cells, side by side, in close apposition, and forming bands running in different directions. In some of the older parts the nuclei have disappeared, so that the cells, almost linear in shape, look at first glance like bundles of fibres. In the more recently formed portions the spaces enclosed by these bands contain rounded cells, and where this space is small the fusiform cells nearest it have a concentric arrangement. In some instances the concentric arrangement obtains up to the centre, and a scraping of the tumour presents many of these aggregations of fusiform cells rolled one upon the other, and resembling very strikingly the nests of epithelium from an epithelioma. Some of the softest parts of the tumour, constituting the rounded nodulations of the convex surface, are composed almost exclusively of round and oval cells, with very few of fusiform shape. In these parts the intercellular substance is most abundant, though still without any trace of fibrillation. The enclosing capsule is composed of loose fibres running in various directions. In some parts there are delicate wavy fibres of ordinary connective tissue, but elsewhere they are broad, sharply outlined fibres, branching and uniting. Among them are abundant small round nuclei, about ·0002 inch in diameter. Around some of the larger ones a closely appressed cell-wall can be traced. In the deepest layer of the capsule some fusiform cells occur similar to those of the tumour, but there is no gradation between the tumour and the capsule. The structure is thus characteristically that of a 'fasciculated sarcoma.' It evidently sprang from the dura mater, and pressed upon the brain-substance, but did not involve it."

(To be continued.)

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Medical Times and Gazette.

SATURDAY, FEBRUARY 7, 1874.

THE DUTY OF THE MEDICAL ELECTOR.

If that intelligent foreigner who studies and understands us so well, and is so conveniently induced now and then to give us the benefit of his criticisms, were to come forward and deliver himself concerning the addresses and speeches of this present election time, what would he say more than that, as befits a nation of shopkeepers, the first, and second, and third point and topic throughout is—money? He might add that there had been indeed some very dignified sparring between her Majesty's Prime Minister and the leader of her Majesty's faithful Opposition about the Straits of Malacca, and some allusions to a clause in the Education Act; but we think that he would be chiefly struck by the many topics that are conspicuous by their absence, and especially by the almost utter silence as to the great subject of sanitary reform. He could not but remember that this had been lately a prominent question both in and out of Parliament. The Government had been forced to recognise it so far that there had been a Royal Sanitary Commission; a public Health Act had been passed in 1872; and Sir Charles Adderley's very important and comprehensive Bill had received a grudging kind of assent from Government in 1873, though it had to be withdrawn from want of real and hearty support. The Government might then really be expected to give public health one of the most prominent places in their programme of measures to be introduced into the new Parliament. How is the omission of it to be explained? Our foreign friend knows quite well that the Public Health Act has not worked so well that no more legislation on the subject is needed just now. Had anything like success attended its working, it would have been mentioned often enough as one of the triumphs of the present Ministry; but unhappily, partly from defects in the Act itself, and partly from the way in which it is interpreted and worked by the Minister at the head of the Local Government Board, it seems much more likely to be a fatal failure than in any degree a success. All the more pressing and great therefore is the need of further sanitary legislation. Our friend would ask, moreover, How is it that the leader of the Opposition is also silent on the subject? It is not many months since he gave utterance to that famous cry—"*Sanitas sanitatum, omnia sanitas*"; was it only a mocking reminder of the original cry of the Preacher? Alas! we must with shame confess, we fear, that the reason why sanitary reform is not so much as mentioned by either of the two great parties of politicians is but too simple. No great or perfect sanitary reform can be carried out without considerable expense; and the appeal to the electors of the new Parliament has been solely through the pocket. Mr. Gladstone dangles the promise of an immense remission of taxes before their eyes, and his programme is one that will not admit of a measure that would increase taxation—not, at least, for an unpopular object or of an unpopular kind; and sanitary reform is not a popular subject. Mr. Disraeli follows suit. The struggle is for power, and the popular vote must be angled for. Sanitary reform would be expensive, and therefore must be thrust aside. We were, however, wrong, perhaps, in saying that the subject has been quite ignored by her Majesty's Ministers, for we suppose that Sir W. Harcourt was alluding to it when at Oxford he carped at "centralised philanthropy and doctrinaire extravagance." Mr. Lowe, indeed, having to address a body containing a large number of medical electors, spoke respectfully of vaccination, and boasted of the Sanitary Department established by the Government. But is it not the *government* spirit of economy pervading this Department that has so injured the working of the Public Health Act? Mr. Stansfeld has boasted, if we are not mistaken, that his Department is the most economically administered in the State; and is it not just this economy that makes the Act a failure?—a fatal "economy" that wastes health and life in order to apparently save a few pounds.

It is a most deplorable and lamentable thing that we have no statesman strong enough and bold enough to insist on sanitary reform as the most important subject a government can take up. Thousands of lives can be saved every year by it, and by its means disease, poverty,

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and crime can be more largely and effectually prevented than by any other measures. It will conduce more to the health, happiness, and real education even, of the people than any "Education Act," or "free breakfast-table" measure, or "Permissive Liquor Bill" can. So long as masses of the people are allowed, nay, are compelled, as now, to herd together in crowded, dark, fetid, and ill-ventilated dwellings, so long will preventable diseases be rife, and wretchedness, misery, drunkenness, and crime will abound. Light, cleanliness, and pure air are great medicines, purifiers, and educators of the moral as well as of the physical man. Medical men know this only too well, and we hold that it is the duty of every medical man to exert all the influence he can command to return to Parliament members pledged to support, or at the very least not to oppose or impede, measures of sanitary reform. We care not what the professed politics of a candidate may be; but the medical elector should demand of him that he knows something about, and will care about the public health.

IODIDE OF POTASSIUM IN SYPHILIS.

The value of mercury in syphilis has been so amply vindicated by Mr. Hutchinson, that we may be excused from looking longer on this side the picture; but there is another which is of equal or greater interest. As well pointed out by Mr. Hutchinson, syphilis is a malady more or less approximating to the characters of an eruptive fever, and tending like these to terminate of its own accord, with the evolution of certain symptoms. What Mr. Hutchinson has laid down as regards mercury, and what in another column Dr. Wilks corroborates, is that mercury distinctly interferes with the evolutions of these symptoms, cuts the various stages short, and acts as an antidote to the specific poison which gives rise to the symptoms in question. But whether the due course of the malady be interfered with or not, it tends to limit itself and to come to a spontaneous end. But when the end has come, the individual does not cease to be liable to suffering; he ceases to be a source of danger to others, for the disease in this stage can no longer be propagated by him—except, indeed, we accept the theory recently advanced by Mr. De Méric, that a simple sore in such a patient is capable of propagating syphilis. But he becomes liable to certain evils of no mean importance, such as periostitis, disease of bones, deposits of gummy matter in nearly all the organs of the body, rupia and spreading ulcers of the skin and other parts, to say nothing of waxy degeneration of many different organs. Now, these evils are directly consequent on syphilis, yet they are not, strictly speaking, due to syphilis; they are sequelæ, and must be treated in a totally different fashion from syphilis itself. During the period of syphilitic eruption it is questionable whether iodide of potassium is of the slightest value, whilst mercury undoubtedly exercises a most important influence on the evolution of the disease; but in this stage, which is commonly spoken of as the tertiary stage of syphilis, the value of iodide of potassium is just as unquestionable as is the value of mercury in the earlier phases of the malady. It is a very important question for us to settle—if settle it we can—What is the value of mercury in this after-stage of syphilis? Suppose we see a patient with well-marked rupia, with periostitic pains, and other signs of tertiary syphilis, who, nevertheless, has not taken mercury, what should we do? The first thing to note is that such symptoms, though usually sequelæ, may occur in the active stage of syphilis; and as long as syphilis is active, mercury will be of use; but as soon as the active symptoms have passed away, and the so-called tertiary stage begins, we must abandon the attempt to cure by mercury—we must give iodide of potassium. It is not always easy to say where the one stage ends and the other begins, but, broadly speaking, tertiary syphilis or the sequelæ of syphilis may be laid down as beginning with the stage of gummy deposits; and wherever these exist, iodide of potassium, and not mercury, should be given.

There is one matter of great interest with regard to the giving of iodide of potassium in such cases. Under ordinary circumstances, if we give a patient a dose of fifteen grains three times a day, we shall soon have him running at the nose and eyes, and with a rash all over his skin; but in the sequelæ of syphilis we may give twenty, thirty, or even sixty grains every four hours, and only benefit accrue. There is no rash and no other symptoms of iodism. But iodide of potassium is not the only remedy to be given in such cases. Iron and quinine are always of service, as we might almost conclude *à priori* from the pallid and anæmic look of such patients; but cod-liver oil seems often of even greater value, as it is in chronic rheumatism. But, over and above these, sarsaparilla is of undoubted efficacy. Many people think little of its effects, and are inclined to sneer at its use. This most frequently arises from the mode in which it is given, for the decoction should be administered, not by the ounce, but by the pint; and, so given, its value is great.

It is therefore of the first importance to be able to recognise the stage in which a patient is at the time when seen. Whatever the nature of the symptoms of syphilis, if the disease is in process of evolution, mercury will do good; but if that be past, and only the sequelæ left, it will as certainly do harm. Then is the time for iodide of potassium and sarsaparilla.

TRANSPORT AND ITS DIFFICULTIES ON THE GOLD COAST.

At the commencement of the present outbreak of hostilities on the Gold Coast it was very generally asserted that the campaign, in consequence of the deadly nature of the climate, would be what is termed a "doctor's war." The Medical Department accepted the challenge unhesitatingly, and, by all the arrangements and precautionary measures which they took, insured that no shortcomings should be laid to their charge. But the latest accounts received in this country would appear to point out that the present should more appropriately have been termed a "controller's war," if, as we now learn, affairs have come almost to a deadlock for want of means of transport. In fact, both public and private accounts received by the last mail represent the formidable difficulties which have arisen through the scarcity of native carriers. The 23rd Regiment, though disembarked, had actually to be sent on board again from a total inability to provide the necessary means for sending it to the front. Both the 1st and 2nd West India Regiments have been compelled to change their occupation, and turn from fighting-men into porters; and unless some vigorous measures can be taken to enforce a larger supply of native labour, it is even doubtful whether the Prah can be crossed after all. Sir Garnet Wolseley may perhaps be able to deal with this difficulty more effectually than we are aware of; but it should never be forgotten that the former expedition against Coomassie broke down exactly at the spot which he has now reached,—although it is but fair to remember that upon that occasion none of the care and forethought had been employed for the comfort and preservation of the men which have been called into action during the present operations.

We have several times called attention to the necessity, which in our opinion existed, for having a set of bearers specially trained for the conveyance of the sick and wounded, and, under the careful supervision of Dr. Home, we believe such a body of natives was actually raised, but whether they will have been kept together and reserved entirely for this service, under the universal pressure for transport which exists, remains to be seen. In any case it would be perfectly impossible to advance into the enemy's country without some certain provision for sending back invalids to the coast; and,

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however annoying the delay may be, we must be prepared to hear that January 15 has passed without the anticipated start for Coomassie having taken place, unless matters have considerably mended in respect to this great want. Every individual member of the Control Department has worked, we are told, in the most gallant and indefatigable manner. The reason why their efforts have been so unavailing in organising a complete system of transport is to be found in the worthlessness of the material placed at their disposal; still it does seem extraordinary that, with a perfect knowledge of the native character which the earliest experience had developed, some method could not have been adopted to obviate a collapse in this most important branch of transport, just at the very moment when its services were most urgently needed—more especially when it is considered that the authorities were well aware that supplies of all kinds would have to be carried by men, if transport animals could neither be procured nor provided.

The health of Cape Coast Castle and the surrounding district has considerably improved. The best season of this miserable climate has indeed now arrived, and under ordinary circumstances may be expected to continue down to the month of March. The strictest quarantine is still maintained at Cape Coast Castle, and no communication of any kind is allowed between the mail steamers and the shore until the mail-bags are sent on board, just before the vessel starts.

The outbreak of erysipelas which occurred amongst the men of the 42nd Highlanders was fortunately very speedily checked; it was thought to have been occasioned by the want of ventilation on board the transport *Sarmatian*, this vessel having been fitted for trading to northern latitudes, and not possessing all the requirements for service in the tropics. The transport *Manitoban* has arrived in this country with invalids, amongst whom is Deputy Surgeon-General Home; she is ordered to undergo some repairs before again proceeding to her station on the Coast.

Surgeon-Major Woolfreyes has left Cape Coast Castle for the front, to assume the duties of Principal Medical Officer with the expeditionary force; no serious cases of sickness are reported amongst the medical staff on the Coast, though their number has been reduced by about half-a-dozen, who have been invalided either on board ship or home.

It is much to be hoped that the next accounts will record an improvement in the means available for transport; and that, above all, a section of natives who may be fully depended on have been secured for the important duty of transferring the sick and wounded carefully and securely from the advanced positions to the coast.

THE WEEK.

TOPICS OF THE DAY.

As was anticipated, Mr. Lowe has been re-elected the representative in Parliament of the University of London. Sir Henry Thompson exercised a wise discretion in declining the requisition made to him that he should oppose the right honourable gentleman. Sir Henry would no doubt have obtained the suffrages of many of the medical graduates, but it would have been unwise on his part to have raised an opposition which might have caused angry feelings in a constituency of scientific men which could not fail to be disastrous to the interests of the metropolitan University. Mr. Lowe, knowing no doubt the importance of the votes of the medical graduates, commenced his address with a few words having special reference to their views and interests. As this reference is the only one of the kind we have seen amongst the large number of addresses and speeches of candidates for election, we give it in full. It is sufficiently meagre on the part of a gentleman to whom are entrusted the interests of the most important body of medical electors in the kingdom. But, however, it is better than nothing; and as it is the first topic to which he addressed himself, it is to be hoped that it will be the first to engage his attention in the new Parliament. The following is from the *Times*:—

"I have many things to say to you, and therefore, if I cut short the expression of my thanks, which I could lengthen to almost any extent, I hope you will not think it arises from any deficiency of gratitude on my part. I beg to congratulate you most sincerely on the fact that we are here masters in our own house—that we are not, as we might have been had the beneficent intentions of a Conservative Government been carried into effect, waiting to hear by telegram from Durham what manner of man they would set up. There are many topics connected with your University on which I could touch, but I shall treat them briefly. The right hon. gentleman, having congratulated the University on the sacrifice they had made in the past year with reference to their certificates conferring the power of practising in medicine without requiring graduates to submit to the general examination which was to be administered to the whole medical profession, and on the satisfactory progress which had been made with the Brown Trust for the study of animal pathology and the admirable lectures of Professor Sanderson, proceeded—The Government of which I have the honour to be a member, it has often been said, is so stingy that it was not able to do anything for the cause of science or art, confining itself merely to the material interests of the country and entirely neglecting those larger interests as unworthy of its attention. I think that charge can hardly be sustained. Let me mention a few instances. In the first place there is the expedition of the *Challenger*—in itself a great contribution towards solving the great problems connected with the earth's crust and the creatures which inhabit the depths of the ocean. Then there are the preparations we have made, at considerable expense, to make a complete survey of the transit of Venus. Then there are the buildings which have been erected for different scientific institutions, the National History Buildings which are rising at South Kensington—all affording proofs of the desire of the Government to develope the cultivation of science and art. Besides, since I had last the honour of addressing you in this hall and in this character, we have established at last a Sanitary Department. We have made the health of the people really a part of the duty of the Government, and appointed a responsible Cabinet Minister over it. We have also given premiums for successful vaccination, for those acquainted with the history of vaccination are aware that we have had great difficulties to contend with on this subject. It is not only necessary that the people should be vaccinated, but they must be thoroughly and well vaccinated as a real preventive of small-pox. We have no doubt now made a very large advance in checking the ravages of small-pox, though at a considerable expense to the revenue. There is another subject on which I may congratulate you, and that is on the Act which has passed and which I trust will put an end—so far as legislation can put an end—to the adulteration of food. There is nothing for which the last Parliament deserves more credit than for passing a law which really seems likely to strike a blow at that dreadful adulteration which takes place in almost all articles of food chiefly sold to the poorer classes. The measure seems likely to become a most valuable one, and when the people come to investigate these things apart from the heats and animosities of party warfare, I believe they will be inclined to consider this one of the best things accomplished by the last Parliament."

It will be remembered that some time since a discussion took place in more than one board of guardians of the metropolis respecting the removal of aged and infirm paupers to the Imbecile Asylum, Caterham. It was roundly asserted that many cases of this kind of removal occurred in several London parishes. The motive was simply the saving of parochial rates. The assertion at the time seemed so monstrous that it was generally disbelieved; but it appears to have been too true. In the third annual report of the Committee of Management of the Asylum, just published, the Medical Superintendent says—

"Very old and palsied people continue to be sent, and very few, almost none, are in even moderate bodily health. I fail

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to see any reason for not retaining many of the former in workhouses. Doubtless their minds are somewhat enfeebled by the causes above named, but they cannot be considered as truly imbecile or insane. If they are so, every person who lives beyond his sixtieth or seventieth year, or who may have an attack of paralysis, is liable to be so classed. Your Committee continue to remonstrate against such people being sent."

Surely this is a flagrant abuse, and should be put down with a high hand. With reference to the health and mortality of the Asylum, the deaths during the year have only been about two-thirds of the number of the previous year—187 against 269; exactly half were of patients over 60 years of age, 40 were over 70, 11 over 80, and 1 over 90 years. The number of patients treated during the year is 1906, of which 232 were fresh admissions. Of these, 16 have been discharged cured, and 27 discharged improved. The class of patients admitted continues much the same as stated in previous reports. The total accommodation now provided in the Asylum is for 780 males and for 1102 females (including detached infirmary), besides twelve single rooms on each side, making a total of 1906.

Infant mortality has assumed proportions which are truly appalling. Much of this mortality—indeed, by far the greater part—is due to ignorance with respect to the feeding of infants. Mothers and nurses in all classes of society are, as a rule, ignorant of the nutritive qualities of various articles of diet. With the view of remedying this serious evil, we are glad to perceive that the Vestry of St. James's, Westminster, on the recommendation of the Sanitary Committee, has agreed that some plain rules, drawn up by Dr. Lankester, the Medical Officer of Health, on the management and feeding of infants, should be printed and distributed amongst the poorer districts of the parish. Dr. Lankester's well-known works on food are a sufficient guarantee that the subject will be treated in a practical manner. The vestries of other parishes may follow the example set to them by that of St. James's with advantage to the poor of their respective districts.

We are always glad to take notice of instances of approval by boards of guardians of the conduct of their medical officer. In a case of gross disobedience by a nurse to the orders of Dr. Netherclift, the Medical Officer of the Chelsea Workhouse, he instantly ordered her suspension. He reported the fact to the Infirmary Committee, who approved of what he had done, and on the matter being brought before the guardians at their last meeting, they at once unanimously confirmed the decision of the Committee.

Not satisfied with abusing vaccination in every form, the anti-vaccinators do not hesitate to invent for the purpose of carrying out their views. The *Birmingham Daily Mail* of last week contains the following:—

"On the 30th ult. we published a copy of a circular memorial which had been addressed to the Birmingham and other boards of guardians upon the subject of vaccination, by the Rev. William Hume-Rothery, a Church of England clergyman, of Tivoli, Cheltenham. One paragraph in the memorial was as follows:—'I desire also to mention that the Right Honourable Robert Lowe, M.P., Secretary of State for the Home Department, has promised to bring in a Bill during the next session of Parliament for the repeal of the Vaccination Laws.' With the view of testing the accuracy of this important statement, which appeared to admit of considerable doubt, the editor of this newspaper communicated with the Home Secretary upon the subject, and the following reply was received this morning:—'Whitehall, 31st January, 1874.—Sir,—I am directed by Mr. Secretary Lowe to acknowledge the receipt of your letter of the 29th inst., and to inform you that the statement made—that he has promised to bring in a Bill during the next session of Parliament for the repeal of the Vaccination Laws—is utterly untrue.—I am, Sir, your obedient servant, A. F. O. Liddell.'"

We understand that Dr. Arthur Edis has been elected Secretary to the Obstetrical Society of London, *vice* Dr. J. J. Phillips, deceased.

Sheffield Hospital Sunday took place on the 25th ult., when the collections at the various churches and chapels in the town realised a total of £1747 12s. Last year the sum collected was £1446 16s. 1½d.

Dr. James Russell has resigned the appointment which he held as Professor of Medicine in Queen's College, Birmingham. A very general feeling of regret prevails among the students that they are about to lose Dr. Russell, who was with all a very great favourite.

We hear that in consequence of some disagreement between the honorary staff of the Royal Infirmary for Women and Children, Waterloo-bridge-road, and the resident authorities, the whole of the former—with one exception—have resigned their appointments.

We have seen a portrait, just published by Mr. Mitchell, of the late Dr. Bence Jones, which strikes us as a very good and pleasant likness. It is engraved by Holt from a drawing by George Richmond; and it would be difficult to say more than that in commendation of a portrait.

THE GENERAL ELECTION AND THE PROFESSION IN IRELAND.

Foremost in the items of news from Ireland touching the election is the intelligence that Sir Dominic Corrigan, Bart., will not again seek the suffrages of the constituents of the city of Dublin. Members of the profession of all shades of opinion, however much they may differ from Sir Dominic in politics, will regret this decision. Of undoubted ability, a fluent and self-possessed speaker, Sir Dominic was always listened to with attention and respect in the House of Commons. We have no hesitation in saying that his loss will be much felt. It was stated that Dr. Robert Lyons would stand for the Irish metropolis in the Liberal interest, but this gentleman was not one of those nominated last Monday, the battle-field being left to four candidates—Sir A. E. Guinness, Bart., Conservative; Mr. Jonathan Pim, Independent Liberal, the late member; Mr. Maurice Brooks, the present Lord Mayor, Liberal and Home Ruler; and Mr. Edward Fox, Home Ruler. Two members of the profession who have not yet sat in Parliament are aspirants for Parliamentary honours in the Irish provinces. Mr. O'Leary, Surgeon to St. Vincent's Hospital, stands for the borough of Drogheda as an advanced Home Ruler. He has met with an enthusiastic reception at the hands of those whose loyalty to the British constitution is perhaps more than questionable. Should he succeed, he will doubtless lose no time in acquainting the new House with the wants and wishes of a certain section of his countrymen. Dr. Evory Kennedy seeks to represent the County of Donegal in the Liberal interest. He has two formidable opponents in the late members, Mr. Thomas Conolly and the Marquis of Hamilton. On the whole, then, we fear there is little reason to anticipate any decided accession of strength from Ireland to the representation of the profession in the new House of Commons. This is especially to be deplored at a time when a comprehensive sanitary measure for the sister isle is greatly needed, while the hands of those who are fighting the battle of preventive medicine in England also so much require to be strengthened.

In connexion with the election, Dr. D. Toler Maunsell, Hon. Secretary to the Irish Poor-Law Medical Officers' Association, has addressed a circular of much interest to the members of the Association. Having referred to the present favourable opportunity of bringing their grievances before the individual notice of the members of the new Parliament, he proceeds to point out some of those grievances. The Poor-law medical officers in Ireland are the public vaccinators of the country, but whilst obliged to vaccinate every person presented for that

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purpose, they receive one shilling only for such as reside in their particular districts, while they must vaccinate the others gratuitously, instead of at a rate increasing with the distance, as in England. With regard to the registration of births and deaths, also, the registrars are at a disadvantage. In Ireland the onus is placed entirely upon the registrars of finding out every death as it occurs. This leads to a great deal of additional labour upon their part, and necessarily in cities causes the non-registration of many deaths. The fees also in Ireland are smaller than in England. With regard to dangerous lunatics, a duty has been imposed upon the dispensary medical officers within the last seven years, which appears to be without precedent. Under sec. 10 of Vic. 30 and 31, cap. 118, it is enacted "that the police magistrates, or the justices of the peace, must summon the nearest available dispensary medical officer to examine every dangerous lunatic that may be brought before them, and that he must certify as to the condition of the alleged dangerous lunatic without fee or reward." On the other hand, in both England and Scotland remuneration is provided for certifying for such cases by Act of Parliament. Another grievance that affects Poor-law medical officers in Ireland is, that there is no scale of fees for medical witnesses in courts of law in this country as in England. Dr. Maunsell also advocates the including of this branch of the profession in the Civil Service of the country, and calls attention to the probable introduction at an early date of a Public Health Bill for Ireland. The document is a timely one; but we have again to express our regret that, while we shall miss Sir Dominic Corrigan from that small band of whom only Dr. Brady and Sir John Gray will remain, we can scarcely hope to welcome any new advocates of the rights and privileges of the profession from its own ranks.

THE TERMINATIONS OF NERVES IN JOINTS.

THERE are many clinical reasons why a more complete knowledge than we at present possess should be acquired, if possible, of the anatomy and physiology of articular nerves. The excessive pain in certain forms of arthritis, the overpowering sensation of faintness when a loose cartilage changes its position in a joint, and the peculiar condition of the articular muscles in synovitis, are all phenomena sorely in want of explanation. The hope, too, is possible, that an accurate knowledge of the distribution of nerves in the synovial membranes may contribute to the solution of the difficulties which beset the current pathology of the so-called nervous or hysterical diseases of joints. A considerable contribution to the histology of the synovial nerves accordingly deserves to be received with attention. Nicoladoni describes in the last part of Stricker's *Jahrbuch der Gesellschaft der Aerzte* (1873, Heft iv.) certain investigations which he has made upon the subject. He confined himself to the knee-joint of rabbits, and pursued the nerves to their terminations in the internal and external layers of the capsule, upon the bloodvessels, and in the Pacinian bodies.

A specimen of the internal capsular layer, or intima, which has been specially prepared to show the nerves, presents under a low magnifying power an arborescent appearance, due to the distribution of the nerve-branches; and the latter terminate in peculiar rounded areas, somewhat resembling the buds of the tree. Examined with a high power, these terminal spots are resolved into networks of non-medullated nerve-fibres, which are therefore distributed at considerable intervals only, and that either among the endothelium (epithelium) cells lining the synovial cavity or immediately beneath them. Sometimes the network is both superficial and deep, and so what Nicoladoni compares to a clew of delicate fibres is found. The constituent fibres are by no means uniform; but, on the contrary, alternately constricted and swollen in their course. The interesting point, therefore, in the anatomy of the nerves of the synovial intima is their termination in networks, which form only occasional sensitive areas on or in the tissue. The external layer or adventitia of the synovial capsule in young rabbits presents perfectly analogous structures, except that the networks are smaller and simpler. And in adult rabbits only a trace of network is to be found.

Nicoladoni has found nothing specially new in the anatomy of the nerves distributed to the vessels of the capsule. He has observed and described a single terminal nervous fibre coursing along the wall of an artery, and ending in a network apparently in the middle-coat.

Finally, Pacinian bodies are found in the synovial capsule, as was pointed out by Rauber some seven years ago. They occur both in old and young rabbits, are of various shape, and as a rule are much smaller than the well-known Pacinian bodies in the mesentery of the cat.

INCOMPETENCE OF A MEDICAL ASSISTANT AT RETFORD.

THE *Retford and Gainsborough Times* of January 24 last, in reporting an inquest held on the body of an unfortunate platelayer, who was knocked down by a passing train on the Great Northern Railway, near the Eaton crossing, and so severely injured that he died about two hours after, has brought to light so gross a case of ignorance and incompetency on the part of an assistant to a medical practitioner of the neighbourhood, that we feel called upon to notice it. As soon as the accident was discovered, Dr. Pritchard, of Retford, was sent for, but, as he happened to be absent, his assistant, a Mr. Gerald Miller, attended for him. In cross-examination by the coroner it was elicited that this person was possessed of no qualifications, although he had lived with various medical men for twelve or fourteen years past, and he had actually allowed the poor fellow to be placed in a guard's brake-van for conveyance to Newark Hospital, when in a dying state, in preference to summoning one of the other practitioners from Retford to render assistance. The coroner in summing up commented strongly upon the conduct of Gerald Miller in presuming to act as a medical man without being qualified to do so, and deprecated the idea of life and limb being entrusted to the charge of such an incompetent person. With these remarks we entirely agree; if Dr. Pritchard engaged his assistant for dispensing only, he (the assistant) had no business to present himself in attendance on this or any other serious case; and for more than the mere compounding of medicines Mr. Gerald Miller could scarcely, we should think, have been retained.

THE CORONER AT ST. THOMAS'S HOSPITAL.

FOR some time past it has been customory to hold coroner's inquests in the Materia Medica Museum of St. Thomas's Hospital, a circumstance which led to unpleasantness between the coroner (Mr. Carter) and the students. The coroner alleged that the students purposely annoyed him and the jury during their inquiries by making unearthly noises outside the door, necessitating the appealing to the press to use their influence in his behalf. The *Echo*, *Morning Advertiser*, and one or two other dailies responded by publishing articles, couched in language not very complimentary to medical students generally, but offensively severe on the students of St. Thomas's Hospital. The students held a meeting, at which they denied making any noise with the intention of annoying the coroner and jury, and passed resolutions requesting the Hospital authorities to withdraw permission for inquests to be held in the school buildings. This request, we are glad to hear, has been complied with, and a room has been provided within the Hospital (away from the school buildings) in which the coroner and jury can hold their inquiries without interfering with, or being interrupted by, the students.

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THE MIDDLESEX HOSPITAL.

THE Medical Society of this Hospital was originally established in 1774, and has consequently just completed the first hundred years of its existence. The centenary was celebrated on Thursday, January 29, by a *conversazione*, at which were present many old Middlesex men (some who had not seen their old school for many years) from all parts of England, who wished to do honour to the occasion. There were altogether upwards of 600 guests, and among them we noticed all the members of the Middlesex staff, as well as many leading members of the profession, and not a few governors of the charity who take every opportunity of showing the interest they feel in the institution.

The visitors were received by the president in the board-room of the Hospital, which was brilliantly lighted by the zoological lamps of Messrs. Williams and Bach. A corridor had been erected from this to the school, where were provided in the museum and library a variety of scientific and entertaining objects, all of which it would be impossible here to enumerate. There were several novelties in the way of philosophical and surgical apparatus, and many carefully prepared histological specimens exhibited by means of an ample supply of microscopes. We noticed, also, a case containing a choice collection of old Worcester china, lent by Mr. Geo. Donaldson, of Bond-street, who also contributed a collection of old Wedgewood ware and some rare Oriental vases of considerable interest.

Mr. Streeter, of New Bond-street, made a fine display of diamonds, both in the rough and polished state, most of which were from his party of explorers now on the African diamond-fields. We note among the fine gem ornaments an emerald and diamond necklace of exquisite workmanship, valued at 8000 guineas; another, a necklace, consisting of forty gems, all of pure colour and shape, value £3500. Here also were scattered ruby suites, sapphires, pearls, and cats' eyes—forming, indeed, a most beautiful collection. On two other trays were laid some beautiful specimens of Mr. Streeter's machine-made jewellery. The designs and finish in some of these were really excellent. He also showed the piping bullfinch, which attracted great attention.

Several aquaria were exhibited by Mr. G. H. King, who had in one of them some fine specimens of sea-horses, which were set off by means of Silber lamps placed behind. On the walls of the museum and library were hung a collection of pictures, among which were the works of some well-known artists, including members of the medical profession. We must not omit to mention that during the evening an admirable concert was held in one of the lecture-rooms under the able conductorship of Herr Ganz. Some operatic *morceaux* were given with great effect by Signor Caravoglia, and two violin solos were very ably executed by Mons. Van Heddeghem. Most efficient aid was rendered by Messrs. Critchett, Roberts, Semple, and Thorley. The evening passed off most successfully, and the Committee must feel themselves well repaid for their trouble.

EPIDEMIOLOGICAL SOCIETY.

DR. GAVIN MILROY gave notice of the following propositions for discussion on Wednesday, February 11:—

"1. As quarantine is a practical question, its value, or otherwise, can only be determined by the results of experience, independently of theoretical considerations. In respect of cholera, there has already been ample experience acquired in this and in other countries, during the successive European epidemics since 1831, to test its value both by sea and land.

"2. In 1865 the Council of this Society declared their opinion to the then President of the Privy Council that quarantine, as enforced in many Continental countries and in our own colonies, afforded no trustworthy protection against the invasion of cholera, while it served to create false expectations of defence, and to foster neglect of internal sanitary precautions.

"3. In 1866 an International Conference was held in Constantinople. The conclusions of the Conference in relation to quarantine, adopted by a majority of the members, have never been accepted by the most experienced men in this country. They are quite at variance with the opinions expressed by the Council of this Society in the previous year.

"4. The detailed history of the outbreak of the disease in 1866 in a single one of the West India Islands—viz., in the French island Guadaloupe,—and of the circumstances which preceded the outbreak, and of the different conjectures respecting the supposed importation of the disease by a vessel from France, shows how inexact and misleading is the evidence that is too often accepted concerning the origin of epidemic occurrences.

"5. The existing state of quarantine legislation and quarantine practice in our own West India Islands is extremely faulty, and urgently demands revision. It well deserves consideration by the Council of this Society, whether the attention of the Secretary of State for the Colonies should not be directed to this important subject of State medicine.

"6. The quarantine order of our own Government, issued last summer in respect of the precautionary measures to be adopted towards infected or suspected arrivals in our ports, might form the basis of sound legislative enactments on the subject in all our colonies. The order in question will be regarded by Continental upholders of quarantine as a virtual condemnation of the system approved of by them.

"7. The more thoroughly that the subject of quarantine in relation to cholera is investigated, the more exact and instructive will be the information we acquire touching various points in the natural history of that pestilence which are still obscure and uncertain."

MEDICAL SOCIETY OF LONDON.

WE understand that Mr. A. E. Durham has an important "Case of Dislocation of the Femur on to the Margin of the Sciatic Notch, of five months' standing, Reduced by Manipulation under Chloroform," which he will bring before the Society next Monday. The subject is a good one, and raises an important question as to the advisability of interference in such cases. At the same meeting there is expected an important paper by Mr. Morgan, of Dublin.

LONDON ANTHROPOLOGICAL SOCIETY.

AT a meeting of this Society held at 37, Arundel-street, Strand, on the 3rd inst., Dr. R. S. Charnock, F.S.A., President, in the chair, the following papers were read:—1. "Accepted Impossibilities," by H. B. Churchill, Esq. 2. "Tests adapted to Determine the Truth of Supernatural Phenomena," by G. Harris, Esq., F.S.A. After referring to the prevalence of superstition in all ages and countries, from which but few people are wholly exempt, the author proceeded to classify the different phenomena of the kind alluded to, and submitted for consideration certain tests applicable to each case; and stated that the question is of deep importance, and has attracted the attention of some of the greatest minds; and that the truth or fallacy of the alleged phenomena is well worthy of a systematic inquiry.

HEALTH AND MORTALITY IN THE POTTERIES.

To those who doubt the beneficial influence of sanitary legislation, and decry the value of the labours of medical officers of health, we commend the annual report for 1873 of Dr. J. S. Walker, Medical Officer of Health for Hanley which states:—

"During the year there were 539 deaths in Shelton, 426 in Hanley—total 965, at a death-rate of 21·46 per 1000 in the estimated population. In 1872, the death-rate was 26·36; in 1871, 38 per 1000; in the ten years previous, 26·58—so that the work done by the committee has borne its fruits by a diminished rate of mortality amounting to nearly 5 per 1000. There were registered 283 deaths of children under six months of age; 53 zymotic or preventable diseases in Hanley, 87 in Shelton—total 130, at a rate of 3 per 1000. At the present time the town is quite free from the epidemic of small-pox, and has been for many months. It shows what an incalculable

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benefit the Contagious Disease Hospital has been, at the Old Infirmary, having prevented the spread of this loathsome disease throughout the town. I should like to see a permanent one established in every town in the Potteries, so that a refuge might always be at hand for any case of fever, or other contagious disease that may arise, so that each case might be perfectly isolated—well and judiciously nursed."

DR. BARCLAY'S REPORT ON THE HEALTH OF CHELSEA.

DR. BARCLAY, Medical Officer of Health for Chelsea, in his last report states that the mortality of the past fortnight has been unusually low for this season. The total deaths recorded were only fifty-three in number, against a calculated average of eighty. The annual rate per 1000 was consequently only nineteen. The low rate of mortality was no doubt greatly due to the mildness of the weather, as the deaths from pulmonary diseases barely exceeded one-half of those recorded in the early part of last December. The deaths among children under five years of age also bore a smaller proportion than usual to the total deaths.

GLASGOW WESTERN INFIRMARY.

THE annual meeting of the subscribers to the Glasgow Western Infirmary, mainly intended for the purpose of clinical instruction, which is now in course of building, was held on the 22nd ult., under the presidency of the Lord Provost. It was announced that the main part of the building would probably be ready for occupation by May 28 next, and the remaining portions by November. The total cost of the Infirmary, including the site, is estimated at £73,810 17s. 10d., towards which £67,470 7s. 10d. has been already subscribed, leaving a deficiency of £6340 10s.

HEALTH OF SCOTLAND.

THE Registrar-General's monthly return of the mortality of Scotland for December last states that—

"The deaths of 2638 persons were registered in the eight principal towns during December, of whom 1396 were males and 1242 females. Allowance being made for increase of population, this number is 299 below the average mortality of the month during the last ten years. A comparison of the deaths recorded in the eight towns shows that during December the annual rate of mortality was 21 deaths per 1000 persons in Leith and in Perth, 25 in Edinburgh, in Dundee, and in Aberdeen, 30 in Glasgow, 35 in Greenock, and 41 in Paisley. Of the 2638 deaths, 1155, or 44 per cent., were of children under 5 years of age. In Perth, 17 per cent. of the persons who died were under 5 years of age; in Edinburgh, in Dundee, and in Aberdeen, 42 per cent.; in Paisley, 43; in Glasgow, 44; in Leith, 49; and in Greenock, 53 per cent. The zymotic (epidemic and contagious) class of diseases proved fatal to 701 persons, thus constituting 27 per cent. of the whole mortality. This rate was exceeded in Greenock from the fatality of small-pox, and in Paisley from that of scarlatina. Scarlatina still continues the most fatal of the epidemics, having caused 216 deaths, or 8·1 per cent. of the whole mortality. In Dundee, Glasgow, Greenock, and Paisley respectively, 7·2, 8·2, 9·0, and 35·5 per cent. of the deaths were attributed to this disease. Fever caused 98 deaths. Of these, 33 were tabulated as typhus, 60 as enteric, and 5 as infantile remittent fever. Small-pox was the next most fatal epidemic, and still continues on the increase, 94 deaths having been recorded as against 83 in November. While the deaths from this disease are on the decrease in Greenock, they are on the increase in Glasgow. Measles caused 77 deaths, and was most fatal in Aberdeen, Leith, and Edinburgh, where respectively 8·4, 10·3, and 10·4 per cent. of the mortality was ascribed thereto."

LOTION FOR FETID FEET.—Permanganate of potash fifteen parts, distilled water 1000 parts. The feet to be washed twice a day with the lotion. They are then to be carefully dried, and powdered either with potato-starch or lycopodium. —*Union Médicale*, January 27.

LETTER FROM THE GOLD COAST.

(*From our Special Correspondent.*)

CAPE COAST CASTLE, WEST COAST OF AFRICA, January 6.

VOYAGE OF THE "VICTOR EMMANUEL" TO THE GOLD COAST—ST. VINCENT, SIERRA LEONE—QUARANTINE ON THE COAST—DISEMBARKATION OF THE TROOPS—HEALTH OF THE SOLDIERS ON LANDING—CASES UNDER TREATMENT IN THE "VICTOR EMMANUEL"—HOSPITALS ON SHORE—OTHER HOSPITAL-SHIPS—ILLNESS AND DEPARTURE OF DEPUTY SURGEON-GENERAL HOME—HIS SUCCESSOR—OTHER APPOINTMENTS.

HER MAJESTY'S ship *Victor Emmanuel* (hospital-ship) reached Cape Coast Castle on the afternoon of January 1, after a pleasant and prosperous voyage of thirty-two days from Portsmouth, which she left on the morning of November 30. The good old ship, if she did not add to the reputation for speed which she possessed when I knew her on the Mediterranean station in 1857, showed that she still retains her excellent sea-going qualities, and that she is still sure and steady, the latter being no small matter in a vessel anchored off this coast, where smarter and swifter craft roll most disagreeably. Beyond the fact of her stopping for a day at St. Vincent—one of the Cape de Verde Islands—and for two days (Christmas-day inclusive) at Sierra Leone, to take in coals, no incident of importance occurred on the outward voyage. St. Vincent is a bleak and barren spot, of volcanic origin, while Sierra Leone is very verdant and beautiful; but its very beauty and its gorgeous tropical vegetation are its most deceitful features and a careful survey of the town and neighbourhood during our short stay enabled me to fully realise the justice of its claim to the sad distinction of being "the white man's grave." Sanitary science has done little for this lovely spot—for, despite, filth, squalor, and smells, it is such,—though much might be done; and the quarantine rules struck an old traveller as being peculiarly lax and slack in their mode of administration. This at any time in such a place is to be deplored, and now more especially, when so many Europeans fresh from home are on this coast, and when fever of a very severe and fatal character has lately shown itself in vessels reaching the station from the south and east.

When, a few days later, the importance of the establishment of a rigid quarantine at this place, as well as at Cape Coast Castle, was urged by me on the officials at the latter station, I was pleased to find that both subjects had already arrested the attention of Deputy Surgeon-General Home, V.C., C.B., and that a strict inspection and supervision of all vessels arriving at and leaving Cape Coast Castle had been instituted a week before, and was being carried out by a naval surgeon of much experience, and with special aptitude for the post. A similar arrangement might with great advantage be made as regards Accra, Lagos, and Sierra Leone, at all events as a temporary measure, and during the continuance of the present war, when the prestige of our army depends so entirely on the healthy condition of the soldiers and sailors of the Ashantee Expedition. There are several officers of the sister service out here at present in every way fitted for such a post; and I consider that surgeons of the Royal Navy are better calculated to carry out quarantine duties effectively than army men, who know little of shipping matters, or, indeed, than civilian doctors on the West Coast, whose onerous and multifarious duties on shore must claim their entire and undivided attention.

The arrival of the *Victor Emmanuel* at Cape Coast was most opportune, the disembarkation of the troops in harbour having just commenced, and the move across the Prah being fixed for January 15 or thereabouts. The Rifle Brigade landed in two divisions on the 1st and 2nd instant respectively, and the arrangements, I am told, left nothing to be desired. The process commenced in the evening; the last man was on shore by 1 a.m.; and they had completed their first march of eight miles by six o'clock. The men had soup before starting, and a comfortable breakfast meal on arrival. To the Rifles is due the distinction of having landed every officer and man of the battalion, the paymaster and his sergeant alone excepted, they being under orders to remain on board the *Tamar*, and not a sick man was left behind. The 42nd "Royal Highland Black Watch," which disembarked on January 3 and 4, were not

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quite so fortunate, having lost one man on board ship from erysipelas, and sent two others on shore to hospital shortly after their arrival, from the same disease. The *Sarmatian*, which made such a fine run from Portsmouth to Cape Coast within thirteen days, is not well suited for such a climate as this, being close and oppressively hot. To this circumstance must be in a great measure attributed the large amount of sickness on board of her in such a very fine set of men as compared with the Rifle battalion on board H.M.S. *Himalaya*, a roomy, well-ventilated vessel, and, as most of your readers know, specially employed for some time back as a Government troopship.

The 42nd, on disembarkation, sent to hospital nine cases of sickness, two of these being severe ones of acute rheumatism. It is not unworthy of note that both these soldiers are volunteers from the 79th, "The Queen's own Cameron Highlanders," who suffered from the same affection in the Bengal Presidency in 1857, when that corps was prostrated by malarial fever and rheumatism after a long and trying march in the winter season from Rawul Pindee.

The 1st Division of the 2nd Battalion 23rd Royal Welsh Fusiliers landed on the morning of January 5 from H.M.S. *Tamar*, and the 2nd Division was to disembark on the following morning, but, for some reason or other, the latter arrangement was not carried out, and I have just learned that the division on shore, after completing two marches, is to retrace its steps and to re-embark. This is very disheartening to the gallant 23rd, the senior regiment out here, and second to none in the service. The battery of Royal Artillery—No. 1 of the 17th Brigade—still continues on board the *Tamar*, and it is believed that the contingents of the Royal Marines and Royal Marine Artillery, lately arrived from England by the *Dromedary* and *Thames*, are to occupy quarters on board H.M.S. *Himalaya* in harbour. These changes of plans are doubtless due to the difficulties in the way of transport, numbers of the bearers having deserted, and no others being procurable. The list of the 23rd sent to hospital in anticipation of landing numbered fifteen, and there was one Artilleryman from the same ship. None of these cases were severe; a few of them were due to climate, or, more properly speaking, to *this* climate, as three cases of acute pulmonary disease were the result of the cold in the early part of the voyage; the rest were mainly cases of enthetic disease, or of slight accidents incident to soldiers on board ship.

The cases of illness admitted from the shore present different features from those occurring on the way out or on board ship, and are as a rule much more severe. Some of these are cases of bilious remittent fever and dysentery, the former exhibiting in several instances a decided tendency to cerebral complication, and the latter in more than one instance evincing unmistakable signs of a scorbutic taint. Nothing but change of climate will do for these patients, some of whom have been out here for several months, and have undergone much hardship and privation. I shall be in a position to write more satisfactorily in reference to the character of disease as it presents itself to us here by an early mail, when I should also hope to give you a brief notice of the hospitals on shore at Cape Coast Castle. There are several of these—viz., the garrison hospital; one of the churches converted into a hospital and furnished, though not at present occupied; one for officers in a private house; besides a wooden hut on Connor's Hill, two others of the same material in process of erection, and a convalescent house for four officers. The *Victor Emmanuel* will accommodate 140 sick men and sixty convalescents, but has only comfortable accommodation for six sick officers, unless cots should be slung, or a portion of the main deck curtained off for their use. The accommodation on board the *Thames* and *Dromedary* for sick officers and men is good, and within a few days the floating hospital arrangements for both services will be very complete. Surgeon-Major Bleckley, M.D., will have the medical supervision of the Army Transport Hospitals, and upon him will devolve the responsibility of providing medicines, medical comforts, attendance, clothing and outfit generally for all these. A programme of the very elaborate arrangements designed by the Army Medical Department at home for the reception, treatment, and transport of the sick and wounded of this expedition is enclosed herewith, and you will see with what ability and forethought it has been elaborated.

Before closing this letter I would express the great regret felt by everyone here on account of the illness and early prospective departure of Deputy Surgeon-General A. D. Home, V.C., C.B., who has discharged with such efficiency the very arduous duties of Principal Medical Officer on the West Coast of Africa since the commencement of this very trying expedition. He has now broken down in health under the effects of climate, hardship, and overwork. The loss of such a man at such a time is a very serious one to the Medical Department out here, and to the service generally, as from his talents, professional culture, war services, and experience of tropical diseases acquired by a long residence in the East and West Indies, he was emphatically the right man in the right place, and his removal at the present critical juncture is specially to be deplored. Surgeon-Major J. A. Woolfreyes, M.D., being the next in seniority, succeeds Dr. Home, who embarks at once on board the transport *Manitoban*, leaving for England on January 10. Surgeon-Major D. A. Campbell Fraser, M.D., 103rd Royal Bombay Fusiliers, a recent arrival from England, but an officer of much and varied tropical experience, and a volunteer for this war, will succeed Dr. Woolfreyes as Principal Medical Officer at Cape Coast Castle.

It is understood that the Naval Brigade will cross the Prah about January 10, and that the military will follow shortly afterwards. There is a considerably larger sick-list in the 1st West India Regiment, lately arrived from Jamaica by the *Manitoban*, and in the 2nd West India Regiment, the latter more especially, than in any of the European corps. You may expect fuller particulars by next mail.

CLINICAL REMINISCENCES.

By PEYTON BLAKISTON, M.A., M.D., F.R.C.P., F.R.S.

No. VIII.—Conclusion.

In the series of papers now brought to a close, I have hitherto dealt only with the *past*; there are, however, some subjects which seem to me to demand attention on the part of such persons as shall feel disposed to study the *present* aspects of medicine, and to speculate on its *future* prospects.

Leaving this task to be undertaken by younger and abler heads than mine, as these are probably the last pages I shall write on medical subjects, I venture to suggest for their consideration some matters in which I think it will be generally acknowledged that there is room for improvement, more especially those connected with the education of our successors, who are to carry on our work during the next generation.

At this time efforts are being made to introduce a *uniform* system of medical education and examination throughout the British Empire; but is it not also advisable that some alterations should be made in the course of study prescribed, and in the nature of the final examinations? Whilst it is doubtless necessary that students should be well grounded in physiology, histology, chemistry, etc., and encouraged to make themselves acquainted with the modern discoveries that have been made in these branch sciences, it may be fairly questioned whether they can well do so under the present system, in which so much of their time is taken up by attendance on lectures at which they can learn so little—such as those on the practice of medicine and surgery and materia medica, which are not illustrated in such a manner as to fix the attention and aid the memory; and whether such lectures might not advantageously be replaced by an increased amount of clinical instruction and examination at the bedside? That being done, would it not be well to make the final examination partake of the same thoroughly practical character, and carry it on more or less in the wards of a hospital? I am well aware that such a plan would be attended with some difficulties, both in respect to hospital accommodation and the additional labour it would impose on the examiners; but it would be attended with such advantages as to make it worth while to take steps to overcome these difficulties, and to increase the number or remuneration of the examiners.

And now a question of a different character presents itself—Whether something more cannot be done to satisfy the reasonable requirements of the public, whose health it is the object of our profession to promote. Those of the classes who can afford to pay well for attendance, and those of the labouring classes who cannot do so, are somewhat different. The former are naturally anxious to know by what means they can dis-

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cover who are the best men in the profession, in order that they may obtain their services either wholly or in consultation when necessary. I know no means by which they can do so under our present system. In Paris there is a certain number of professors and *agrégés* who have obtained their position by public *concours*, but here none such are to be found. I well know that in the present case, just as in competitive examinations for various appointments, there are qualities which cannot be determined by such examinations, but still a great deal might be learned. To a certain extent the object might be attained by imitating the universities, and arranging those who shall have passed the final examination in three classes, according to their proficiency in *practical* knowledge of their profession. And not only this, but it might be open to any practitioner who had been placed below the first class to offer himself for re-examination after an interval of some years, and, if possible, thus raise himself to a higher class by giving evidence of the increased skill and knowledge he had been enabled to obtain by industrious work in practice. The paying classes would thus be in some measure guided in their choice of a medical attendant for themselves, and be better able to make a good selection of officers for those hospitals and dispensaries of which they might happen to be governors.

The requirements of the labouring classes are of a different order. Few of them are in a position to pay for medical attendance in the ordinary way, but they are enabled to do so by adopting the principle of insurance, paying a certain sum monthly during health to insure attendance and medicine for themselves and families during illness. Accordingly, this plan has been very extensively carried out by means of clubs throughout the country, which provide both medical attendance and a money allowance during illness. But this system does not fully meet the requirement of the labouring classes, who often have as great an objection to the club as to the parish doctor, the choice of their own attendant being the chief object they have in view.

About fifty years ago, an endeavour to meet this want was made by means of self-supporting dispensaries, as they were then called; and some of them, when judiciously managed, succeeded very well; and one, established by me about forty years ago in a small town in a southern county, is in full operation at the present time. As all the medical men of the district belonged to it, the members were enabled to choose their own medical attendant—a privilege which they have always highly prized. There is, however, an obvious difficulty in introducing them into thinly populated country districts where only one medical man resides within a reasonable distance.

In London and other large towns, attendance on the labouring classes is mostly supplied by hospitals and dispensaries. Here, however, are two great and growing evils—advice and medicine are frequently given to persons who could afford to pay a moderate sum for them; and the number of out-patients has reached such dimensions, that the existing medical staff is unequal to meet all the demands upon it in an efficient manner.

Both these evils might, to a certain extent, be remedied by the introduction of provident dispensaries in connexion with existing institutions or as separate establishments, combined with a system of careful inquiry into the circumstances of the persons desirous of enrolling themselves as members. This plan would also assist in removing another great evil attendant on the present system—namely, the tendency to pauperisation of the low orders, amongst whom an application for gratuitous advice and medicine is not unfrequently the first step towards that for parochial relief.

At this time there are numerous laymen disposed to give their time and attention to this subject, and if the members of our profession would meet them half-way, and act with them on joint committees, it is very probable that many existing difficulties would be surmounted, and that eventually the comfort and independence of the poor would be greatly increased, and a sensible diminution of the amount of money spent under the Poor-law would be effected. At any rate, surely the experiment is worthy of a fair trial.

I cannot conclude without deprecating an evil practice that has gradually grown up during the last fifty years—that, namely, of druggists not confining themselves to their proper work of compounding and dispensing drugs, but taking upon themselves to prescribe for patients across the counter,—a practice both injurious to the younger members of our profession and fraught with no slight danger to the community at large. That it has attained its present proportions is owing in no small degree to the conduct of medical men on entering the profession. For it has become very much the fashion amongst them to look upon the preparation and sale of medicines as a *trade* unworthy of the members of a profession. When young men are possessed of means which enable them to support themselves for a few years with but little pecuniary returns, they are of course quite justified in commencing practice as pure physicians or surgeons; but if they are not so circumstanced, they need not fancy they can combine position and emolument on first starting. In attempting to do so, by declining to make up their own medicines and to receive payment for them as well as for their services, they not only fail to secure a moderate income by handing over to the druggist the profits which would have arisen from this source, but they drive to his shop those whose cases might have afforded them great experience, and almost force him to take upon himself duties for the proper performance of which he is totally unqualified, thus entailing a great injury on the poor. In thinly populated country districts they are compelled to make up their own prescriptions, and lose no honour by doing so; and yet, when they set up in a town where there are druggists' shops, they think it beneath their dignity as professional men. But their predecessors in the last generation thought otherwise, and amongst them were many who were gentlemen in the fullest sense of the word, and were universally received as such in society.

Let our young men, then, taking a common-sense view of the matter, abandon the vain hope of combining rank and profit on first entering the profession, and, commencing with hard work and moderate profits, raise themselves to a position in which they will be able to carry on their practice in such a manner as they shall deem to be best for themselves and their patients,—remembering that if their duties are performed in a *trading spirit*, with a view mainly to their own aggrandisement and emoluments, then truly they are degrading themselves; but if, with a moderate care for these matters, they combine a self-sacrificing love for humanity, and throw all their energies into their work for the good of others, then, and then only, they ennoble themselves and their profession, and they may feel perfectly indifferent to the views that may be taken of them by the selfish and vulgar-minded portion of mankind.

ON THE HYGIENE OF HOSPITALS.

By M. BOUCHARDAT,
Professor of Hygiene at the Paris Faculty of Medicine.

(*Continued from page* 134.)

"3. We now proceed to consider the affections which constitute the permanent danger in nosocomial *encombrement;* but we cannot too often repeat that it is not the mere assembling of a large number of inhabitants in a hospital suitably disposed that we have chiefly to dread, but the accumulation of certain patients whose affections become aggravated in hospital, and especially may be communicated to patients in the same ward, under most redoubtable forms. The affections which in this point of view call for our attention, are—(1) diseases of children, (2) those of lying-in women, and (3) surgical affections."

With respect to the *mortality of children*, M. Bouchardat refers to the fearful statistics of the Foundling Hospital (a "barbarous philanthropy," as he terms it), with which our readers must be sufficiently familiar. The mortality is referable chiefly to the effects of cold in the winter months, defective alimentation, and agglomeration; and it is satisfactory to learn that the Assistance Publique has succeeded in effecting a great reduction in the proportion of deaths. Some improvement has also been effected in the two children's hospitals, but the mortality still continues much higher than at any other of the hospitals—viz., about one in six. The children, usually victims of *physiological misery*, for the most part perish during the convalescence of the diseases for which they have been admitted, by acquiring some of the contagious diseases which are constantly present—small-pox, measles, scarlatina, hooping-cough, or croup. The general conclusion is that the treatment of children's diseases in hospitals should be discouraged as much as possible in favour of their treatment at home.

The dangers attendant upon the *nosocomial encombrement* of *lying-in women* have long engaged M. Bouchardat's attention, and his experience confirms the conclusion of Professor Le Fort, that while there is but one life lost in 212 deliveries performed *à domicile*, 1 woman in every 29 dies in the hospitals.

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Before 1789, the deaths among the lying-in women of the Hôtel-Dieu amounted to about 6 per cent. From 1802 to 1862 it was 3·12 per cent. at the same hospital, and at the other hospitals it has varied from 3·98 to 6·98, reaching, however, at the Lariboisière during 1854-62 to 7·86 per cent. Of course, these large mortalities have been due to epidemics, and some of these have been so murderous as to carry off nearly half the women who were admitted. Lariboisière and the Clinique have had especially fearful visitations, and at the Maternité in 1864 there was one death in every five deliveries. The mortality at the Pitié has been exceptionally small, which Professor Bouchardat attributes in a great measure to the minute precautions taken by M. Empis, who was for a long period the physician to this portion of the Hospital. These consisted in ventilation by at least three windows, open day and night, in a ward of sixteen patients; the rigorous and repeated removal of all traces of blood from the person of the woman; the entire disuse of sponges; the immediate removal of placentæ and soiled linen from the ward; and the immediate isolation of the patient on the first appearance of symptoms, transporting her to the medical ward for acute diseases.

After some rather vague suggestions as to the mode in which the morbid ferment constituting contagious puerperal fever is developed, Professor Bouchardat goes on to observe that what distinguishes women delivered in maternities is that they are in the vicinity of other women who may become the origin of the transmission and propagation of such morbid ferment. Is this transmission operated as a miasm through the air or as an inoculable virus? There is no evidence indicating that this morbid ferment takes place through the medium of the air. We have no example of its transport from ward to ward, or from one storey to a higher or lower one, when all is kept distinct—attendants, furniture, and articles used in dressing. We have no difficulty in recalling cases of the ferment of surgical erysipelas propagated by the air. In puerperal fever, every fact proves that the ordinary mode of transmission is by contact, whether through the medium of operators and their pupils and assistants (especially the subordinates among these), instruments, dressings, sponges, charpie, etc. As to the means for preventing or diminishing this excessive mortality of *accouchées*, disinfectants have been often unduly praised and then abandoned, and we must entertain no exaggerated expectations in regard to them. The little power exercised by mechanical ventilation is shown by the fact that the best ventilated hospitals in Paris have lost a greater number of patients than the worst. The disease is generated by the presence of too great a number of *accouchées*, and the great remedy can only be found in their *dispersion*. This to a certain extent may be brought about by having many of them delivered in their own homes, and admitting others into the wards of hospices inhabited by old women—one or two lying-in women in each ward. Still, maternities cannot in France be entirely dispensed with, but they should be rendered as innocuous as possible by limiting the number of admissions and adopting the precautions recommended by M. Empis. On the occurrence of the first case, the patient should be transported to a special apartment, and isolated from the other lying-in women; and when an accoucheur or midwife has lost a case of puerperal fever, they should always abstain from any manual interference for some days. All are agreed that on the slightest indication of an epidemic the maternity should be closed at once.

Surgical Operations.—M. Bouchardat believes that surgeons were for long too reticent with regard to the excessive mortality which attends great operations performed in hospitals, as compared with that which prevails in civil life. He himself exposed it fully in 1847, and frequently since then, coming to the conclusion—"If I had to undergo a great operation, I should prefer enduring it in a garret, supplied only with bread and water, to running the risk of that poisoning which science and the most enlightened prevision do not furnish security against." During the late siege he delivered lectures to large audiences, pointing out the great danger of overcrowding the wounded, and after operations. The three principal maladies met with under this condition are purulent infection, contagious erysipelas, and hospital gangrene.

Purulent Infection is the product of a specific ferment produced under circumstances that are not all yet made out, the conditions favouring its production being traumatic fever, the access of air bearing the germs of putrefaction, the sojourn of a modified pus and its combination with foreign liquids, and the existence of physiological misery. The part played by traumatic fever is a considerable one; and the more violent and persistent such fever is, the greater are the chances of a bad result. Not only does this fever appear necessary for the formation of the specific ferment, but, once developed, it is propagated much more certainly in the subjects of this fever. Surgeons have long recognised that a prevention or limitation of the access of air to the parts prevents or diminishes the generation of the specific ferment. The air being the vehicle of the motor ferments of putrid fermentation, it is doubtful whether these become modified in the wound of the subject of traumatic fever, or communicate specific properties to the cells contained in the liquids or solids that constitute the wound. At all events, these ferments cannot be the direct motors of purulent infection, or they would exert much more general influence on those who have undergone operations. But it is a matter of daily observation that the most certain condition of the propagation of purulent infection is the presence in the ward of a patient suffering from the affection; and it is just this propagation from patient to patient that constitutes the danger inherent to surgical wards. It would seem certain, then, that the specific ferment does not reach the first patient from without, but is produced within his economy. Physiological misery, whether the result of deficient food or great purulent discharges, is a circumstance—all else being equal—which also seems to favour the production of the specific ferment. As to the mode of transmission, everything tends to show that the air is not the vehicle—contact or true inoculation being essential to this end. The analogy between the conditions of the development of the specific ferment of puerperal fever, and of the ferment of purulent infection, are such as to show, if not an identity, a strong resemblance, and to indicate the removal of women who have been delivered from wards in which surgical operations are treated.

Contagious Nosocomial or Surgical Erysipelas.—Like the ferment of purulent infection, that of nosocomial erysipelas is transmitted by contact through the intermedium of instruments, operations, etc.; but it differs from this in a very important hygienic particular, in being transmissible also by the air, so that the medical attendants, pupils, and nurses may become the subjects of it. But such power of transmission or contagion is very limited, very few persons out of the great number exposed taking the disease. Still, well-observed, authentic, and conclusive facts demonstrate the possibility of such contagion, one fact proving such transmission by the air in the propagation of the disease from one ward to another, or to a contiguous chamber. This contagious nosocomial erysipelas differs absolutely in its origin and prognosis from the erysipelas that is frequently met with in the medical wards. Louis remarked how very rarely he had ever seen these last cases terminate fatally, while the prognosis of erysipelas in the surgical wards is, on the contrary, very serious. The difference between surgical erysipelas and purulent infection, in spite of their common origin, is seen in the different conditions under which the two affections are manifested in the surgical wards. Purulent infection is almost constantly present in these, while contagious erysipelas usually appears at tolerably long intervals, and sometimes assumes the form of an epidemic.

Hospital Gangrene.—This is rare in the Paris hospitals, but is both common and formidable in military hospitals after great battles. The conditions of its development are well known—the existence of gunshot wounds and hospital *encombrement*; and when these conditions prevailed at the Hôtel-Dieu in July, 1830, and June, 1848, cases of hospital gangrene were frequent there.

(*To be continued.*)

OZONE.

A PAPER by Professor Schöne, "On the Reciprocal Behaviour of Ozone and Water," has just appeared in the *Berichte der Deutschen Chemischen Gesellschaft zu Berlin*. The result of these observations goes to prove that ozone does not convert water into peroxide of hydrogen, and that ozone to a considerable extent is absorbed by water when passed through it, even at ordinary temperatures; but during this process no qualitative change was observed. Some of the ozone is lost during this absorption-process, which Professor Schöne attributes to conversion into common oxygen by the action of the water. At the same time, Dr. T. Moffatt, of Hawarden,

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has published a paper in the *Journal of the Scottish Meteorological Society*, in which, as the result of numerous observations and experiments, he is led to conclude that there is some connexion between phosphorescence and ozone. He states, as is well known, that the brilliancy of phosphorescent bodies varies with the state of the weather; that the glowworm is more luminous in unsettled than in settled weather; and that the luminosity of the sea—produced, as is well known, by myriads of minute animals, especially the night-shining *Noctiluca*—is a pretty sure precursor of storms. Dr. Moffatt has found that, when phosphorescence is scarcely perceptible or entirely absent, that similarly the ozone-papers indicate a diminution or absence of ozone from the atmosphere. There are some points with regard to these statements that we should be disposed to criticise. For instance, the ever-varying amount of electricity in the atmosphere, which has a marked influence upon the development of ozone, does not appear to have been taken into account by Mr. Moffatt.

THE WEBB FUND.

The following additional contributions have been received by Mr. Augustus Churchill, the Treasurer, to the 4th inst.:—

	£	s.	d.
Dr. Morell-Mackenzie	10	10	0
Dr. Woodman	2	2	0
Dr. Begley	2	0	0
Medical Benevolent Fund	20	0	0
Dr. Thorowgood	1	1	0
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Dr. Priestley	10	10	0
Dr. Potter	5	5	0
Dr. Sansom	1	1	0
Dr. Hawksley	3	3	0
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Mr. John Noble	25	0	0
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Miss E. G. Mann	3	3	0
Mr. R. H. Prance	10	10	0
Mr. John Gay	5	5	0
Mr. D. L. Collins	2	2	0
Dr. Beale	5	5	0
	210	19	0
Amount previously acknowledged	800	19	6
Total	£1011	18	6

FROM ABROAD.

The Cholera Epidemic of 1873 in Vienna.

The following is a brief account of the cholera epidemic which prevailed in Vienna in 1873. The first cases appeared on April 4, and by the end of November the epidemic had ceased. During April there were only 26 cases with 23 deaths, and in May the numbers were but 17 with 13 deaths. The increase in June was inconsiderable—viz., 24 cases with 20 deaths. From July 4, however, a great increase took place, there being 555 cases with 282 deaths. Until July 4, therefore, the cases might be still regarded as sporadic, but from that time an epidemic outbreak occurred, the mortality of the disease declining, as usual, with its extension. In August a very considerable increase of cases again took place, these amounting to 2069 with 1239 deaths; but in September the numbers diminished to 1714 cases with 983 deaths. In October there were but 251 cases with 159 deaths, and in November 22 cases with 12 deaths. Altogether, there were 4678 cases with 2641 deaths—*i.e.*, a mortality of 56 per cent. This, upon the whole, must be regarded as a favourable proportion; but it should also be borne in mind that on the one hand the returns include some very slight cases, and on the other some fatal cases occurred in persons suffering from other diseases, which are not enumerated. Also cases occurring outside Vienna are not counted. Of the total of 4678 cases, 2054 were men (with 1703 deaths), 2084 women (with 1192 deaths), and 540 children (with 376 deaths). Of the 4678 cases, 2370 were treated in private practice (with 1393 deaths), and 2308 were treated in the hospitals (with 1248 deaths).

Benzoic Acid for Ammoniacal Urine.

Professor Gosselin and M. A. Robin read at the meeting of the Académie des Sciences, January 5, a short paper "On Ammoniacal Urine: its Dangers, and the Means of Preventing these," in which they detailed some experiments which they had performed upon rabbits and guinea-pigs for the purpose of determining how far ammoniacal urine is poisonous when entering the economy by a wounded surface. By the subcutaneous injection of aqueous solutions of carbonate ammonia, death, preceded by convulsive and tetanic accidents, was produced: but when a solution of the ammonia in urine, or ammoniacal urine itself procured from a patient, was employed, the animals died with febrile symptoms analogous to those of urinary fever, without any nervous symptoms having been induced. Other experiments were pursued at the same time, employing human urine in a normal condition as the fluid injected (eight grammes daily), without any ill effect whatever being induced.

The conclusion drawn is, that human ammoniacal urine is toxical for the rabbit and guinea-pig, and that, if absorbed through a solution of continuity in the urinary passages, it would probably prove toxical to man also. It becomes of importance, therefore, to correct this state of the urine, not only because it favours the formation of phosphatic calculi, but because, in case of injury to the urinary passages, there is also danger of urinary poisoning. Benzoic acid, which has been shown by Ure and Keller to be rapidly transformed into soluble hippuric acid, which is inoffensive, would seem to be a suitable agent for this purpose, and the authors refer in their paper to three cases in which it was administered. Two of the patients were subjects of urinary calculi. In the first of these, the urine, which was very alkaline and ammoniacal, was, prior to the performance of lithotomy, rendered neutral by the administration of from one and a half to two grammes of benzoic acid daily, suspending it in a mucilaginous mixture or in water. After the operation the urine became acid, and the patient did very well. In the second case, the urine became ammoniacal after the third lithotrity *séance*; but after taking two grammes of the acid daily for a week, it became acid. The acid had to be resorted to after one of the other *séances*, the whole of which (eight in number) took place by its aid, with the urine in an acid condition. The third patient, the subject of stricture, supplied the urine which killed the animals referred to above, and which contained from four to six grammes of ammonia per litre. Twenty days' employment of the acid reduced this to one gramme per litre, and the comparative innocuity of this urine was shown by injecting five or six grammes daily for six days into a rabbit, without producing any ill effect. The authors believe that benzoic acid, and perhaps other vegetable acids, should be prescribed for patients suffering from ammoniacopurulent cystitis, and especially for those of them who have to undergo operations on the urinary passages.

After the reading of the paper, M. Pasteur, believing the opportunity a favourable one for again airing his panspermic doctrines, declared his belief that this ammoniacal state of the urine was frequently induced in consequence of bacteria having been introduced with the instruments employed, and fermentation being thus established; and he recommended surgeons before passing these to dip them in boiling water, or, better still, to pass them through a flame. And when, at a subsequent meeting of the Academy of Medicine (January 20), he broached the same idea, and it was objected to him that the ammoniacal state was often induced without any instrument having been employed, he replied that still these omnipotent germs might enter by the urethra, which, as compared with these infinitely small existences, is as large as the Thames Tunnel. However, his hobby was ridden to very little purpose on this occasion, for the clinical observers, surgeons, and chemists who were present were all against him, demonstrating that, even supposing that this condition of the urine may occasionally be so produced, it is also due to chemical changes in the fluid induced by local irritation, and in various other ways. The discussion, however, as reported in the *Bulletin*, is an interesting one.

Sudden Death in relation to Chloroform.

At a recent clinical lecture at the Hôtel-Dieu, Professor Richet adverted (*Gaz. des Hôpitaux*, January 31) to a case of sudden death supervening upon an injury to the finger, which, under certain contingencies, might have given rise to a question of medical responsibility. A man was admitted who had just received a blow with an axe on the extremity of one of the fingers. M. Richet determined, in place of converting a jagged wound into a clean one by a flap operation, to treat it

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by simple occlusion, and, as the issue of the case proves, it is well he did so. All went on well, the wound progressing regularly towards cicatrisation, with but slight suppuration, and the patient suffering neither from fever nor other inconvenience. For some days past he had been making himself useful in the wards, when one night, having risen to go to stool, he had hardly returned to his bed when he died without a groan or exclamation of any kind. The patients in the neighbouring beds suspected nothing, and his death was only discovered when the sister passed near his bed. The autopsy was practised with the greatest care, without the cause of so sudden a death being discovered. Nothing was found relating to the heart, brain, or medulla oblongata; but a lesion was discovered which sooner or later would have caused death, consisting in eight or ten metastatic abscesses of the liver. There was also intense bronchitis.

It is difficult to explain the formation of the abscesses. The wound suppurated but slightly, and the patient went freely about the ward quite free of fever. The purulent infection thus pursuing an insidious course does not explain so sudden a death. In a medico-legal point of view the case is of interest. Suppose the patient had requested to have the finger removed, and that M. Richet had consented, and had administered choloroform: might not the death which occurred so unexpectedly have coincided with such administration, and have been referred to the chloroform? Scarcely three months since, a practitioner was convicted in France of "homicide by imprudence" for having lost a patient under chloroform; and if such a rule of jurisprudence is to prevail, it will evidently have the most serious consequences for surgeons. Is it not to be supposed that among the subjects of operations who have died after the administration of chloroform, some have succumbed in consequence of some unknown cause, as in the case here related, or like another patient to whom Professor Richet referred, and who died at the very moment when chloroform was about to be administered to him prior to an operation?

Action for a Midwifery Fee in France.

A recent trial in France has obtained a legal decision for a practice which had indeed received universal professional sanction, but which was still liable to dispute. Dr. Coqueret had engaged to attend a Madame Bourdon for the sum of 200 francs, and during her delivery called in Dr. Carpentier to assist in the application of the forceps, whose fee of 80 fr. the husband refused to pay. He alleged that the sum of 200 fr. had been agreed upon between him and Dr. Coqueret, his family doctor, and that this sum ought to free him from all other liabilities. He had not requested the assistance of Dr. Carpentier, whose charges ought to be met by Dr. Coqueret, who had sought his co-operation.

The judgment delivered by the *juge de paix* before whom the case was brought was remarkable for its good sense. "When a fixed sum is agreed upon in advance," he observed, "it is supposed that the accouchement will prove a simple and natural one, which is most frequently the case, and to discuss and bargain for a payment on the supposition of a difficult or dangerous delivery would be contrary to the most elementary propriety. If complications arise in a laborious delivery, they legitimise the demand of a larger sum than that which was originally agreed upon; and the assistance of a *confrère*, rendered necessary in consequence of the application of the forceps, turning, or any other operation, demands a supplementary remuneration. Seeing that in this case the employment of the forceps was unavoidable, and that Dr. Carpentier co-operated with Dr. Coqueret in such application, it is of good right that the said Carpentier should demand the price of his presence and assistance. It is in vain that Bourdon alleges that neither he nor his wife called in, or caused to be called in, Dr. Carpentier; for it is inadmissible that, in the face of the complications and dangers of the accouchement, they should refuse assistance declared to be indispensable. At least they tacitly ratified the calling in of his assistance, and the lady acknowledges that she was not opposed to such consultation. It is also in vain for Bourdon to endeavour to leave the defrayal of Dr. Carpentier's charges to Dr. Coqueret. The most vulgar equity determines that services must be paid for by those who profit by them; and such accidental payments, due to the intervening practitioner, must be discharged by the person for whom his intervention became necessary. To admit a contrary system, and to oblige a practitioner to provide from his fee remuneration for the assistance he demands, would probably encourage hesitation and delay in calling in a *confrère*, compromising alike the interests of the patient and professional dignity. Bourdon must pay the sum demanded, and the costs of the action."

REVIEWS.

Braithwaite's Retrospect of Medicine. Vol. LXVIII., July to December, 1873. Simpkin and Co.

Little need be said by way of recommendation of the new volume of "Braithwaite's Retrospect," except that the present summary maintains the character of the series as a judicious and useful condensation of recent medical research. The practical nature of the subjects selected for reproduction recommends this summary to the numerous class of medical practitioners whose occupations or limited opportunities preclude them from studying for themselves the more extended serial issue of medical literature. All those who wish to revise in a condensed form the important observations of the past half-year, will find in the present volume ample materials for their purpose. As an evidence of the vitality of medical literature, it is gratifying to find that a large proportion of the writers who figure in this volume of "Braithwaite's Retrospect" are junior members of the profession.

The Treasury of Botany: a Popular Dictionary of the Vegetable Kingdom; with which is incorporated a Glossary of Botanical Terms. In two volumes, 8vo. Longmans.

This is a new edition of a most valuable popular work, edited by Professur Lindley, M.D., F.R.S., and Thomas Moore, F.L.S., Curator of Chelsea Botanic Gardens, etc., assisted by numerous contributors. The object of the editors was to bring together, in the form of a dictionary, a concise account of all the plants concerning which a general reader was likely to seek for information, adding thereto, when practicable, longer notices of the more remarkable species, together with such popular matter as would give interest to the otherwise dry, technical character of generic or specific descriptions. This plan has been carried out in the most complete manner, and the work is enriched with an immense number of wood engravings, by Fitch and Branston, of the various genera of plants, and some splendid engravings on steel, by Adlard, representing in a series of views the peculiar physiognomy of vegetation in different parts of the world. The volume should be in the possession of every botanist or lover of botany.

The Junior Local Student's Guide to Latin Prose. By R. M. Millington, M.A., University Members' Prizeman for Latin Prose in 1861. London: Relfe Brothers, Charterhouse-buildings, Aldersgate. 1873.

This little volume is stated to be specially intended for the junior Oxford or Cambridge local student. It contains, by permission of the Syndicate of Cambridge and Delegates of Oxford, the pieces set for rendering into Latin prose, and the critical questions given in the local examination-papers from the year of commencement up to the present time. It will therefore be found of great assistance to the class of students for whom it is compiled, more especially as the peculiarities of Latin construction are very fully explained, and much care has been taken to render the explanations clear to the most moderate intellect. The object which the author has had in view has been to produce a book which, without clashing with any of the usual exercise-books or selections of Latin prose, might still be of considerable assistance to the junior student; and in this intention it may certainly be said that he has aboured with success.

The Leisure Hour and the *Sunday at Home.* London: Religious Tract Society.

These periodicals deserve a word of praise. They are exceedingly well conducted, and one is ever sure that in putting them into the hands of young people a good moral will be taught. With the new year they assume fresh vigour, and deserve the favour of all interested in the propagation of sound literature, especially in country places, where we have always known them welcome guests.

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PROVINCIAL CORRESPONDENCE.

LIVERPOOL.

January 27.

HOSPITAL SUNDAY—PROPOSED WATER BILL—THE ROYAL INFIRMARY.

It was scarcely expected that the collections on Hospital Sunday and Hospital Saturday of this year would exceed those of 1873, at which time they nearly reached £10,000. So general has been the interest excited in the movement, however, and so earnest the efforts made by all sections of the religious community, that a substantial advance has been made even on that large sum, the united collections for 1874 slightly exceeding £10,800. And it is not improbable, if one or two suggestions which have been made be adopted, that even this amount may be exceeded in future years. One of these is, that all the great centres of industry be provided with strong boxes, into which the workmen can drop a small weekly contribution towards the fund, instead of, as at present, giving but once in the year, and that too at a time when, in consequence of the coldness of the weather, etc., there are more than ordinary demands on their resources. Those of the neighbouring towns which are unprovided with hospitals, and which therefore call largely on the beds of the general and special medical charities of Liverpool, it has also been suggested, and with much reason, ought to have Hospital Sunday collections for the benefit of these charities. The following are the yearly amounts contributed since the institution of the movement in 1871:—In 1871, £4869 9s. 1d.; 1872, £8090 2s. 5d.; 1873, £9943 18s. 8d.; 1874, £10,801 19s. 2½d.; to which it is likely that even yet some small further sum will have to be added.

The proposed Water Bill promoted by the Liverpool Town Council is, unfortunately, likely to meet with much opposition from the ratepayers, the majority of whom do not seem to appreciate the very serious condition of affairs towards which this large population is tending. The main source whence the supply of water is obtained at the present time is yielding 125,000,000 gallons per week. The outside amount that can be expected from it in dry weather is 126,000,000 gallons per week, while, in the natural course of things, before the end of the present year there will be an increased demand, owing to the erection of new houses, works, etc., of 5,000,000 gallons. But this is not all. It is more than an unpleasant suspicion—it is an ominous fact—that two of the large wells, which now yield one-sixth of the total supply, are liable at times to be contaminated with fresh sewage matter, and may, on this account, at any moment be shut up by the Health Committee in the interests of the public. Should the necessity for preventing the distribution of their water arise, there would at once be an actual scarcity. What the Bill proposes is to give such powers to the Town Council as will enable them to control the scandalous waste, which now undoubtedly goes on, and thus make the supply for some time to come fully adequate to the demand. In order to do this, they will prescribe the exact character of the water-fittings to be used, and interdict the use of any, whether now existing or to be hereafter laid, which are not in accordance with their regulations. They will also have power to license plumbers and to test and stamp fittings, and generally to make by-laws for preventing waste. Contamination will be provided against by giving power to the Corporation to inspect wells, streams, drains, etc., which communicate with the waterworks, and to destroy cesspools, where contamination is apprehended rather than actually ascertained. Yet the clauses which proposed to give these powers to prevent contamination were for a time withdrawn, though now happily re-inserted. Nothing more strikingly manifests the marvellous indifference to matters which affect the public health on the part of the people generally than the opposition which this proposed Bill has thus far undergone. All this time cesspools are existing within 200 yards of one of the wells, and one within 100 yards, the overflow from which does not go into a drain, but percolates through the ground from the surface.

At the annual meeting of the trustees of the Royal Infirmary, held on the 12th inst., one of the rules was so altered as to admit of future annual meetings being held at a more convenient place than the board-room of the Infirmary, and at a more convenient hour than ten in the morning. This alteration is probably but an introductory step towards rescinding another change in the rules, effected at a very small meeting in the January previously, which extended very greatly the term of service of the members of the honorary staff.

GENERAL CORRESPONDENCE.

ON ESMARCH'S "BLOODLESS METHOD."

LETTER FROM MR. MAC CORMAC.

[To the Editor of the Medical Times and Gazette.]

SIR,—It is very distinctly expressed in my letter published in your journal for January 17 that Esmarch himself attaches but little importance to the question of priority, and I certainly claimed no priority for the principle of his method. In my opinion, however, his procedure differs essentially from the many attempts previously made by surgeons in the same direction—Sir Charles Bell included,—in that it insures an absolutely perfect result, through the employment of very simple, if not the simplest, means. A limb may thus be rendered practically *bloodless*, and a prolonged operation may be performed without a single drop of blood appearing in the wound until the constriction is removed.

The anterior tibial artery has been recently ligatured by Dr. Leisrink in the upper third of the leg with a facility which would otherwise be unattainable (*Deutsche Zeitschrift für Chirurgie*, B. iv., p. 23). The reason for the operation was a traumatic aneurism. The different tissues, in fact, may be dissected and identified as on the dead subject itself—an advantage gained for the treatment of wounded arteries hardly to be exaggerated. This morning I removed the point of a piece of glass broken off in the muscles at the back of the thigh, quite four inches from the surface. Pieces of needle broken off in the palm or sole can be sought for and extracted with comparative ease, the part being first rendered bloodless. We all know how very troublesome the search often proved under ordinary circumstances. The use of sponges is now reduced by this method to a minimum,—a very great advantage.

Professor Spence, for whose opinion I entertain the highest respect, considers the merits of the method much overrated. This is, as he says, a matter of opinion, which further experience will decide. Meanwhile he will, I know, allow me to differ from him, and to add that if Esmarch's plan has received but little favour in the capital of the North, there are other capitals where it has been more cordially accepted. I am, &c.,

London, February 3. WILLIAM MAC CORMAC.

THE ACTION OF MERCURY IN SYPHILIS.

LETTER FROM DR. SAMUEL WILKS.

[To the Editor of the Medical Times and Gazette.]

SIR,—I have been much pleased in reading the results of Mr. Hutchinson's matured experience on the use of mercury in syphilis, and I beg leave to endorse his views as regards its beneficial effects when the constitution is affected, for I have seen persons whose condition had been brought to the last extreme restored by its timely administration.

I am more interested, however, in his statement, which has a very wide significance (but of which I have no personal knowledge), as to the value of the early administration of mercury in arresting or modifying the constitutional effects. It is one of great importance in a theoretical point of view in relation to other specific diseases. The analogies which these diseases have to one another has already been pointed out by Mr. Hutchinson in a truly scientific manner. I ask myself, therefore, whether, if the virus of syphilis can be attacked during the incubative period, the contagia of other diseases may not be destroyed in like manner? Taking the incubation of syphilis as forty days, it seems that during this period the administration of mercury can so affect the poison as to seriously modify its pernicious results. If this be the case, the drug is truly antidotal or specific. We want, however, further to know whether the remedy acts primarily on the blood, and so on the chancre which stands merely as an outward sign of the process going on within; or whether the mercury acts directly on the chancre, and so destroys the source or focus of contagion. That there is an intimate relation between the incubative process and the character of the chancre I believe all surgeons admit, in spite of the virus being sometimes introduced through a fissure in the skin without lo-

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signs, or by means of a syphilitic urethritis commonly called gonorrhœa. It is therefore a matter of great interest to know whether the chancre is a mere exponent of the zymosis (as Liebig calls it) or is the very focus of contamination. In the analogous case of small-pox, the pustule when inoculated takes eight days to mature, and then the constitutional symptoms suddenly appear. It was thought that if the pustule during its formation were rubbed out or destroyed, the results would be modified. Now, in the case of syphilis it is true that chancres have been extirpated in vain, and Sigmund used his abortive measures without result, yet I am not aware that the experiments were made with sufficient accuracy to show that the constitutional effects were in no way modified by the treatment. Mr. Hutchinson has probably facts which could at once solve the question, and which, by showing that no local treatment whatever has any influence over the development of the disease, would prove that mercury did not act by simply preventing a local process. If this be so, I should be inclined to doubt whether any destruction of the inoculated variolous pustule would destroy the incubative process. In small-pox and the other exanthemata we know that when the poison is introduced into the blood it commences quietly to work therein. This would be the case if small-pox were "caught" through exhalations in the air, and therefore the formation of the pustule during the incubative period would be a mere outward sign of a change going on within. The fact, however, of the induration being a kind of gauge of the syphilitic process, and that the latter is shown to be under arrest by a subsidence of the local hardening, is in accordance with what I believe was taught by Lane, and more especially by the older surgeons who followed Hunter. This great man says:—"In the cure of chancre we have two points in view—the cure of the chancre and the prevention of the contamination of the habit. The first by mercury, applied either locally or internally through the circulation. The second object, to prevent the constitution from contamination, is obtained by shortening the duration of the chancre, which shortens the period of absorption. This is not a speculative opinion, but the result of experience, and the destruction of chancres confirms it." A consideration of these facts respecting syphilis may give us encouragement in looking for remedies during the incubative periods of other specific disorders. Belladonna has been asserted to be one against scarlatina, but experience has not been favourable to the statement.

I am, &c., SAMUEL WILKS.

Grosvenor-street, January 31.

HONOURS TO MEDICINE.

[To the Editor of the Medical Times and Gazette.]

SIR,—I take the liberty of sending you the following translation of an item in *La Chronique de Pau*:—

"We are happy to apprise our readers, to whom the announcement will afford great satisfaction, that Dr. Alexander Taylor (Sir Alexander Taylor) has just received from the Emperor of Germany the decoration of the Order of the Royal Crown (third class), for his services during the war to the patients of the Franco-German ambulance at Pau. The insignia of this decoration have been transmitted, together with a most flattering letter to the recipients, by the Ambassador of Berlin at Paris.

"Dr. Taylor has done so much for the prosperity of Pau, and is so esteemed and appreciated here, that everyone will applaud this mark of distinction, though coming, as it does, from Germany."

I have the honour of adding that my distinguished friend, Sir Alexander Taylor, was aided in his attentions to the patients of the Ambulance through the liberality of one of his countrymen here, who, from his private purse, furnished every luxury of food and wine to the sick and wounded under the care of Sir Alexander and his *confrères*—Dr. Harrison Capes and Dr. Dubreuil. Mention should not be omitted of the beneficence of two English ladies of rank, who exercised daily supervision over the nurses of the Ambulance.

I am, &c., A SUBSCRIBER.

Pau, Basses-Pyrénées, France, January 31.

THE Whitechapel District Board of Works at their last meeting raised Mr. Liddle's salary from £250 to £300 per annum—a very commendable addition to the income of a hard-working and meritorious officer of health.

REPORTS OF SOCIETIES.

EPIDEMIOLOGICAL SOCIETY.

WEDNESDAY, JANUARY 14.

Inspector-General ROBERT LAWSON, Vice-President, in the Chair.

A REVIEW of Dr. Cunningham's report "On the Cholera Epidemic of 1872 in Northern India" was read by Dr. MURRAY, Inspector-General of Hospitals, one of the Society's Secretaries for India, strongly controverting the views set forth in the report, both in the question of contagion in cholera and in the dependence of its spread upon human intercourse. Dr. Murray supported his position by tables based on facts of the epidemic of 1867, which was in many respects comparable with this one of 1872, recorded in the report, and referred to these for evidence of cholera from personal communication. He objected that, in the report, Dr. Cunningham seemed to place as much reliance upon negative as upon positive evidence, insisting upon the hundred instances where no intercourse could be traced, and neglecting the five positive instances in the report where such intercourse was alleged as a source of cholera.

Dr. MILROY expressed a difficulty in following Dr. Murray's plan of dealing with the report. Admit contagion, and that does not wholly explain the spread of the disease. The fact of its prevailing only at particular seasons, while intercommunication goes on continuously, is enough to show that it is not propagated only by human intercourse. Dr. Murray adduces instances of attendants on the sick contracting cholera in the hospitals of Paris and Vienna. Greater care in hospital construction and management would prevent this. Why do not we get more evidence from the large hospitals of Calcutta and other Indian cities? Yet not only the report of Dr. Cunningham, but those of all his predecessors, agree in the absence of evidence of contagion in those hospitals. He would ask for an instance of quarantine having kept out cholera. Dr. Murray first begs the question of contagion, and then concludes quarantine necessary as a preventive.

Mr. J. NETTEN RADCLIFFE was most struck, in reading the report, with the absence of all record of importation. We need not assume contagion in examining this question. The difficulty of tracing the first case of illness is always very great, but that of excluding the possibility of importation had not been sufficiently estimated. He illustrated this point, and at the same time the valuelessness of much negative evidence, by the history of the inquiry at Southampton in 1866 into the introduction of cholera by the Peninsular and Oriental Company's steamship *Poonah*. It was believed that no cholera existed in Alexandria when the *Poonah* left, or at any of the places she had touched at on her way homewards. So able an investigator as Dr. Parkes had failed to trace the connexion between this outbreak and any existent epidemic source. Yet now—seven years after the event—Mr. Radcliffe was able to state on undoubted evidence that cholera was prevalent in Alexandria at the very time the *Poonah* was there; it was also at Suez in April; the workmen employed on the canal works were dispersed by its appearance among them; a death took place from cholera in a French ship in the port of Alexandria; there were nine deaths among the Jeddo pilgrims; and became a severe epidemic in Alexandria by September.

Dr. CUNNINGHAM, in reply, said the object of the report was not to promulgate any individual opinions, but to collect facts and to draw from them practical conclusions as to the best mode of dealing with cholera warranted by these facts. The collected facts are the really important part of the report. No ascertained point has been omitted; none of any importance misstated. The report has been widely circulated among medical officers in India, and no exception taken to the record. Dr. Murray would claim as positive evidence of contagion the fact of anyone having cholera who had been in contact with a cholera patient. The mere coincidence of two events by no means places them in a causal relation to each other. The point at issue is whether attendants suffer *more* than others, and no such evidence has been adduced. With respect to the missing link in the history of the pilgrims, which Dr. Murray thinks might have been supplied by the civil surgeon, the greatest care was taken by Dr. Fairweather, as will be seen at page 84 of the report, and, as will be

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seen, that so far as regards importation the evidence altogether breaks down. Though the epidemics of 1867 and of 1872 may be in many ways compared, yet, if we assume that pilgrims were the agents of distribution in the former year, is it to be believed, if the spread of cholera is to be attributed to human agency, that we should have at such an interval the same distribution repeated, the same large areas covered by the disease, and the same large areas exempted, when we know as a fact that the pilgrims spread all over the country? Without denying the contagiousness of small-pox, the argument by analogy is fallacious. We do not know that cholera is like small-pox, nor will the doctrine of contagion altogether explain the spread of small-pox, its periods of quiescence and epidemic prevalence. In analysing with some care the evidence of importation of cholera, I have not (in dwelling on the one hundred cases against it, as Dr. Murray says) passed over the minority of five in its favour; all the facts are given, and, to my mind, they conclusively prove that they entirely fail to make out any case for importation. I should not have referred to the report from the Central Provinces, had it reached me in time; for my report is, as I have expressly stated, founded on evidence taken from "those places which I visited, and in which I was able to make personal inquiries into the circumstances of the outbreak." There is no evidence more likely to mislead than that gathered from native officials, who are always prone to support the views of their superiors. It should never be accepted unless subjected to very searching examination. Dr. Murray attributed the comparative exemption of native soldiers to their living in huts and to their not using common latrines, while the prisoners and British troops are differently situated in both these respects. Were this statement correct, proof would be wanting if the two stand in the relation of cause and effect. As to the good effect of the movement of troops, even to a short distance, from cholera-infected barracks, there is no difference between Dr. Murray and myself, only I cannot admit that the benefits derived from it in any degree support the contagion views. The facts point to the peculiar localisation of cholera. Once recognise that there is danger in remaining in a place where cholera has appeared, and there will be the strongest incentives to get away from it. No such comparison as Dr. Murray draws to show the benefit of quarantine is admissible. To take the inhabitants of a district of several thousand square miles, and to compare these numbers with a few troops or the prisoners in a gaol situated in one point of it, is obviously fallacious. Granted that cholera has abated of late years in gaols, are the changes in diet, clothing, accommodation, cleanliness, and general sanitary improvement to be set aside as nothing to the one condition of quarantine selected as the powerful agent to which the diminution of cholera is to be attributed? This is readily negatived by my facts. Dr. Murray suggests that my views are influenced by Dr. Bryden's aërial theory. I keep aloof from all theories, for what concerns my office is the practical action which ought to be taken to prevent cholera. Dr. Murray has left out of sight the geographical distribution of cholera, the prevalence and diminution of the disease among different sections of the community at or about the same time, the facts that cholera was not propagated along high roads of communication more than in other directions, and that it travels no quicker in these days of railways than before. The evidence against the water theory is left unassailed. I assert that in India—even in those parts of it in which cholera has its home—there is absolutely no evidence of the specific poison supposed to be contained in cholera evacuations being conveyed by water. I would ask Dr. Murray and all others who believe in this theory to adduce one single instance, that it may be thoroughly sifted. I am quite ready to weigh every fresh piece of evidence that can be brought forward, but let us see that the facts are what they profess to be; and as regards India, where there are special opportunities of studying cholera, let there be no error in statement and no hurried rushing to conclusions. As to quarantine, the only instance I know of in which anything like quarantine was carried out in a gaol was in the Central Prison at Lahore; and it is not a little remarkable that while the prisoners here suffered severely, those in the Lahore female gaol, where no such precautions were taken, altogether escaped. I object to the current theories of the day as founded on insufficient data, as leading to restrictive measures which are impracticable. A belief in such theories obstructs the necessary improvement of surrounding conditions; the prohibitions founded on them set people against everything called sanitary reform. My reply to Dr. Radcliffe is, that no evidence of importation is forthcoming, and the absence of such evidence from the report is not without its value. My informants were generally ready with proofs of importation that failed under investigation, and it was not for me to furnish them with evidence, but to sift what they brought to my notice. In not one of the places to which children were sent from the school at Agra was cholera disseminated, though it must be admitted that it did not appear in the school itself until after numerous visitors attended a public exhibition at the school.

Dr. J. Burdon-Sanderson proposed a vote of thanks to Dr. Murray and Dr. Cunningham. The latter appeared before them as a sceptic, but all must acknowledge the spirit of truth had guided his doubts.

It was announced that the next meeting would be devoted to a discussion of the propositions on Quarantine in relation to Epidemic Cholera, brought forward by Dr. Gavin Milroy.

OBITUARY.

WILLIAM MORRIS, M.R.C.S., L.S.A.

Great gloom has been cast over the town of Petworth, in Sussex, by the sudden death of Mr. William Morris. For over thirty years he has been well known, and was regarded as a general practitioner of the highest worth.

Mr. Morris was born in 1820, in Oswestry, Salop, and was one of a family of fourteen children. After receiving his education at the Oswestry Grammar School, he was apprenticed to his father and eldest brother, who were at that time practising medicine there. Afterwards his professional education was completed at University College Hospital. He went to Petworth in 1843, as an assistant to a firm to whose practice he subsequently succeeded. He afforded an excellent example of how much a good man may do, above and beyond his professional work, to endear himself to his fellow-men and to help them in their varied struggles in life. A kind and sympathetic nature, a gentle manner, and good common sense in the exercise of his professional skill had gradually secured to him a very wide and increasingly extensive practice in the town and county.

He was known to numbers as a true peace-maker, a kind and wise adviser, as well as a sympathising friend, and, as was remarked on the day of his funeral, it may be questioned whether there is a man, not in the town of Petworth only, but in the country of Sussex, who had such a marked personal influence over so many others.

In his professional capacity he was as implicitly trusted and looked up to as he was widely known, and it was acknowledged by patients, and also by other members of his own profession, that, though a country doctor of advancing years, he was fully conversant with modern and improved remedies and appliances. As a surgeon he was no indifferent operator, and during his career it fell to his lot to perform once or oftener many of the most important operations upon the body.

His energy and enthusiasm for his calling abundantly evinced his love for it, and made him an assiduous worker at it. It was mainly through his efforts that the Petworth Cottage Hospital, which was built at the expense of the late Lord Leconfield, was started, while the general plan of its construction and almost every detail of its fittings and arrangements were planned and executed under his direction.

His loss is not one of a day or a year, but must be increasingly felt to have created a void that cannot be filled for years to come in this place. The vast concourse of persons of all ranks that followed his remains to the grave, the deep silent grief shown by numbers on the occasion of his funeral, the darkened windows of all private houses, the closed shops, and the many expressions we heard as to the value of the friend thus suddenly and in the prime of life called away, testify to the fact that he was no ordinary man.

The extreme suddenness of the death adds to the pain of all mourners. He died in the midst of his work, and fell in a fit of apoplexy in the very act (as it is supposed) of reaching down his hat to go forth to visits his patients. This sad event was no doubt favoured by overwork, which he has endured night and day for so many years. His friends have often tried to impress upon him the necessity of some relaxation both of mind and body, but his temperament was such that he could not restrain himself from his labours, and his only thoughts

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were how he could best promote the comfort and alleviate the sufferings of others. He has left a widow and two sons and two daughters to mourn over the irreparable loss of a devoted husband and a most loving and beloved father.

JOHN PEET, M.D. Aber., F.R.C.P. Lond.,

Dr. Peet, Surgeon-Major of the Bombay Army, and late Principal of Grant Medical College, died on January 18, at Shanklin, in the Isle of Wight, where he had chiefly resided since his retirement from India in 1865, and had endeared himself to all classes of the community by his unceasing activity and interest in all works of public usefulness and social charity. But it is Dr. Peet's long and valuable services to medical education and science in India that will interest the profession and command its sympathy.

Dr. Peet arrived in Bombay in 1842, at a time when the plans devised by Sir Robert Grant for the medical education of the natives of Western India were about to be carried into effect. He was appointed the first Professor of Anatomy and of Surgery of Grant Medical College, and commenced his course of instruction in anatomy in October, 1845. Though the Medical College of Bengal had been for some years in existence, and the difficulties attending the introduction of practical anatomy had there been successfully overcome, still the same dangers from prejudice and ignorance had to be encountered in Bombay; for the influence of success in Calcutta was unfelt, and different classes and castes had to be dealt with. The judgment and tact with which this duty was performed by Dr. Peet were such that very speedily the pursuit of practical anatomy became silently and surely established. At an after period of the College curriculum the same success attended Dr. Peet's judicious arrangements in clinical and operative surgery. As a lecturer, he was clear, simple, and very earnest; and by these qualities, and the force of his moral worth, he early acquired the confidence, respect, and regard of the students, and maintained these feelings unshaken during the nearly twenty years of his teaching. After witnessing the complete success of the first curriculum —to which he had so largely contributed,—Dr. Peet was obliged in 1852 to absent himself from India for the restoration of his health, which had suffered from sustained attention to his official duties. He returned in 1854, and held charge of the College, the chair of Medicine, and the affiliated hospital for two years, during the absence of the Principal in Europe. While acting as Principal of the College and chief medical officer of the hospital, Dr. Peet did not fail to exhibit the administrative qualities with which he was amply endowed, and to bring to the duties of the chair of Medicine and Clinical Medicine the careful methods of observing and teaching which had characterised his action in the kindred department of Surgery. In August, 1856, the Principal of the College resumed his duties. During the two following years Dr. Peet was partly engaged in the general duties of the department of education, which gave him the opportunity of acquiring a good practical knowledge of two of the vernacular languages of the Presidency; and partly in Europe, where he became a Member (by examination) of the Royal College of Physicians of London. He was elected a Fellow in 1860. In August, 1858, Dr. Peet returned to the position of Principal of Grant College, Professor of Medicine and Clinical Medicine, and Surgeon of the Jamsetjee Jejeebhoy Hospital, and continued in the active discharge of these duties till his retirement from India in 1865. These seven years were—more especially in their early period—disturbed times for education generally in India, and for medical education particularly in Bombay. There was the damping influence of the great mutiny; there was the introduction of a university system with Procrustean principles; there were the crotchets of governing authorities, and the inconsiderate imitation of defects because they already existed elsewhere—all to be contended against. Dr. Peet stood up manfully for the interests and reputation of his College when these were assailed; but imperial decrees often take little heed of the honest convictions of learning and experience. It is not, however, to be understood that Dr. Peet was proof at all points against the influences around him. He gave his mind to some things—rightly or wrongly, time will show—which to other minds, trained in the same school of experience, seemed of very doubtful policy; but he did not do so without earnest thought and an evident regret that he felt himself constrained to differ.

But it was not only as a medical administrator, teacher, and practitioner that Dr. Peet earned a great reputation in Bombay; he was also a zealous cultivator of the science of medicine and contributor to its literature. At an early period of his service he became an active member of the Medical and Physical Society of Bombay; he was Secretary from 1849 to 1853, Vice-President from 1859 to 1862, and President in 1863 and 1864. In the subjoined note(a) is a list of his chief contributions to the *Transactions* of this Society. As Professor of Medicine, Dr. Peet experienced the want of a suitable text-book for his class. The standard English works did not seem to him to meet the wants of Indian students who were to practise their profession in a tropical country. To supply this deficiency he published in 1864 his "Principles and Practice of Medicine." The object was not to produce a complete treatise on the practice of medicine, or to attempt to rival existing standard works, but to set before Indian medical students the various subjects that are usually comprised in a system of medicine on those points of view in which his experience as a teacher of nearly twenty years assured him they would be most readily comprehended, and to allot space to special diseases in proportion to their importance and prevalence in tropical countries. This text-book has been already translated into three vernacular languages, and will doubtless for many years to come guide and assist the native practitioner in his work of quiet usefulness in the various widespread districts in which these languages are spoken. The first edition was soon expended, and Dr. Peet had hoped to realise more nearly in a second edition his own high standard of what such a work ought to be; but the opportunity did not present itself.

Such are the leading facts of Dr. Peet's public career, and from these a general idea may be formed of his character and powers. He was full of life and energy, self-reliant and conciliatory. His mind was eminently practical, and showed a marked preference for subjects of ready attainment. In congenial work of this kind he evinced great industry and tenacity of purpose. On questions of importance his judgment was, for the most part, trustworthy and decided—for it was the result of careful study and reflection. This caution, however, was due rather to his high sense of the duty of responsibility than to natural endowments, for to those who knew him well he sometimes, on matters of minor import, seemed to allow the strict balance of his powers to be disturbed by the friction of opposing opinion or the dominance of a favourite idea. Of his relations in private life, of his thoughtful tenderness in the domestic circle, and of the blank that is left there, we may not speak. His rare qualities of head and of heart will ever remain in the affectionate remembrance of the attached friends who for many years have known and valued his worth. His early death will be mourned, but his good name will long live in the memory and affection of the people of that distant land in which he so long and so usefully laboured.

PETER ALLEN, M.D., F.R.C.S. Edin.,

Was born in December, 1826. He was a pupil of the late Mr. Pilcher, and a student of St. George's Hospital School, at which institution he took several prizes. After taking the degree of M.D. and F.R.C.S., he entered into private practice at Bridport; but this he soon relinquished, entered the army, and served in the Crimea in August, 1855. His health giving way, he returned to England in 1856, and settled in country practice at Yealand Conyers, a beautiful village near Lancaster. In 1868 he removed to London, and soon afterwards made arrangements to assist, and probably to succeed, the late Dr. Yearsley. On the death of that gentleman he carried on the practice alone. He was appointed Aural Surgeon to St. Mary's Hospital, at which hospital he delivered lectures on aural surgery. These were afterwards published under the title of "Aural Catarrh; or, some of the Commonest Forms of Deafness and their Cure." He was preparing these for a second edition when he was struck with the illness that was mortal. In addition to this volume, he contributed "Practical Observations on Deafness arising from the Exanthemata," and a paper "On some of the Functions

(a) "Tapping in Hydrocephalus;" "Cases of Hydrophobia;" "On Lunar Influence;" "On the Practice of Transfusion;" "Statistical Report of Jamsetjee Jejeebhoy Hospital;" "On Tetanus;" "Selections from Practice in Jamsetjee Jejeebhoy Hospital;" "Note on the Quantity, Density, and Reaction of the Urine of persons resident in Bombay;" "On the Prevalence of Typhoid Fever in the Presidency of Bombay;" "Notes on Three Fatal Cases in which Fibrinous Coagula were found in the Heart."

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of the Middle and Internal Ear, and their Analogies," to the *Lancet* in 1869.

Dr. Allen was an able and energetic surgeon, and was most successful in practice. In all the relations of private life he was exemplary, and in conduct and demeanour a perfect gentleman.

MEDICAL NEWS.

ROYAL COLLEGE OF PHYSICIANS OF LONDON.—The following gentlemen were admitted as Members on Thursday, January 29 :—

Brookhouse, Joseph Orpe, M.D. St. And., 30, Parliament-street, Nottingham.
Davidson, Alexander, M.D. Edin., 49, Rodney-street, Liverpool.
Galabin, Alfred Lewis, M.D. Camb., 143, Camberwell-grove, S.E.
Irvine, James Pearson, M.D Lond., 3, Mansfield-street, W.
Mackenzie, Stephen, M.B. Aberdeen, 13, Weymouth-street, W.
Rickards, Edwin, M.B. Oxon., General Hospital, Birmingham.
Semple, Charles Edward Armand, M.B. Camb., 8, Torrington-square, W.C.

The following gentleman was at the same time admitted as a Licentiate :—

Dhanjisha Navroji Parakh, 201, Euston-road, N.W.

ROYAL COLLEGE OF SURGEONS OF ENGLAND.—The following gentlemen having undergone the necessary examinations, were admitted Licentiates in Dental Surgery at a meeting of the Board on the 30th ult., viz. :—

Underwood, Thomas Francis Ken, diploma of Membership of the College dated November 14, 1872, Gower-street, Bedford-square.
Bellaby, Goodman Lawrence, Nottingham.
Geldard, Richard Henry, St. Austell, Cornwall.

One candidate, having failed to acquit himself to the satisfaction of the Board, was referred to his studies.

APOTHECARIES' HALL.—The following gentlemen passed their examination in the Science and Practice of Medicine, and received Certificates to practise, on Thursday, January 29 :—

Barnard, Thomas, Lewes, Sussex.
Davis, Edwin Harry, Dorchester.
Hartley, Charles, Stocking Pelham, Herts.

On Thursday, January 22 :—

Squire, William, Hanwell, Middlesex.

The following gentlemen also on the 29th passed their primary professional examination :—

Adcock, Harold, Guy's Hospital.
Musgrave, Reginald Vernon, St. Mary's Hospital.

At the preliminary examination in Arts, held at the Hall on January 30 and 31, 1874, fifty candidates presented themselves, of whom sixteen were rejected, and the following thirty-four passed, and received certificates of proficiency in general education—viz., in the first class, in order of merit :

1. Oglesby, Joseph William.	6. Hill, William Reed.
2. Palmer, Thomas F. B.	7. Porritt, Norman.
3. Burchall, Joseph L.	8. Roberts, Arthur.
4. Gill, John Wallis.	9. Dearden, Richard J.
5. Preston, Alfred C.	10. Green, George Richard.
	11. Oglesby, Henry Newsome.

In the second class, in alphabetical order, viz. :—

Benison, W. B.	Eames, Wm.	Prothero, J.
Bunting, R. O.	Fergusson, R. A.	Reilly, E. J.
Chapman, H. D.	Knaggs, R. H. E.	Smith, Herbert.
Chard, R. A. S.	Leahy, A. D.	Thomson, W. B.
Collier, H. F.	Lewin, C. S.	Wallis, G. F.
Crick, S. A.	McLennan, W. G.	Woy, Alfred C.
Dawson, W. E.	Newman, A. J.	Wigglesworth, H.
De Montille, L. L.	Pearse, T. F.	

APPOINTMENTS.

*** The Editor will thank gentlemen to forward to the Publishing-office, as early as possible, information as to any new Appointments that take place.

CREWE, CLIFFORD, L.F.P.& S. Glasg.—Medical Officer of the Hospital and South District of St. Peter Port, Guernsey. (Re-election.)

DE LISLE, FREDERICK IRVING, L.R.C.P.—Medical Officer of the Hospital and North District of St. Peter Port, Guernsey. (Re-election.)

HYNES, A. M., M.R.C.S. Eng., L.R.C.P. Edin.—Resident Medical Officer to St. Mary's Hospital for Diseases of Women and Children, Manchester.

PARKINSON, EDMUND WOLLASTON, L.R.C.P. Edin., M.R.C.S. Eng., L.S.A.—Medical Officer for the Wimpole District of the Caxton and Arrington Union.

MILITARY APPOINTMENTS.

WAR OFFICE.—MEDICAL DEPARTMENT.—Surgeon-Major Joseph Salkeld Johnston, from half-pay, to be Surgeon-Major, *vice* W. Younge Jeeves, retired upon temporary half-pay.

BREVET.—The undermentioned officers having retired on full pay, to have a step of honorary rank, as follows, viz. :—Surgeon-Major John Brett, M.D., Madras Army, to be Deputy Surgeon-General; Surgeon-Major Joseph Furlonge Shekleton, Bombay Army, to be Deputy Surgeon-General. The undermentioned officers to have the honorary and local rank of Surgeon on retirement :—Senior Apothecary Frederick James L'Estrange, Bengal Subordinate Medical Establishment; Sub-Assistant-Surgeon J. A. Moore, Subordinate Medical Establishment, Hyderabad Contingent.

BIRTHS.

DAVSON.—On January 25, at Campden Villa, 203, Maida Vale, the wife of S. Houston Davson, M.D., of a son.

FERGUSON.—On January 28, at Altidore Villa, Cheltenham, the wife of G. B. Ferguson, M.B., M.A., of a daughter, stillborn.

HAYNE.—On January 27, at 2, Manor-place, Northfleet, the wife of Frederick Greaves Hayne, M.R.C.S. Eng., of a son.

PRITCHARD.—On January 28, at 41, Guilford-street, Russell-square, W.C., the wife of Urban Pritchard, M.D., of a son—Urban Fleetwood.

WRIGHT.—On January 29, at Cambridge-terrace, Dover, the wife of Surgeon-Major Hornby Wright, of a son.

MARRIAGES.

BADCOCK—HILL.—On February 3, at St. Giles's-in-the-Fields, Lewis Carter Badcock, M.D., of Brighton, son of John Badcock, Esq., of Camberwell-grove, to Ada Louise, second daughter of Adam Hill, Esq., of High Holborn.

COLSON—LEVER.—On January 29, at the parish church, Croydon, Edward Colson, M.R.C.S. Eng., L.S.A., Surgeon Bombay Army, eldest son of the Rev. C. Colson, Vicar of Great Hormead, Herts, and formerly Fellow of St. John's College, Cambridge, to Mary, only daughter of the late B. Lever, Esq., of Blakesley, North Hants.

LITTLETON—RAWLE.—On January 31, at St. James's parish church, Taunton, Philip Richard Littleton, M.R.C.S. Eng., of Callington, Cornwall, to Julia, daughter of the late Thomas Rawle, Esq., of Taunton.

MAYNARD—MCADAM.—On January 28, C. Dudley Maynard, L.R.C.P., M.R.C.S. Eng., of 4, Cambridge-terrace, Holloway, son of the late Robert Maynard, Esq., to Emily Darell Louisa, youngest daughter of Christopher McAdam, Esq., of Notting-hill.

O'CONNOR—LEAHY.—On January 29, at Cork, Bernard O'Connor, A.B., M.D., of Welshpool, Montgomeryshire, to Jeanne, second surviving daughter of the late Daniel Leahy, D.L., of Rosscon, county Cork.

REDFERN—WILDENOW.—On January 29, at St. Thomas's Church, Portman-square, Thomas Redfern, M.D., R.N., to Marie Henrietta Wildenow, of Potsdam.

DEATHS.

BARRY, JAMES JOSEPH, M.R.C.S. Eng., L.A.H., L.M., at 13, Albion-place, Ramsgate, on January 31, aged 66.

CANSTATT, N. J., M.R.C.S., at his residence, 4, Castle-street, Houndsditch, on February 3, in his 80th year.

SMITH, JOHN ABLEWHITE, L.R.C.P., eldest son of T. E. Smith, Esq., of Louth, Lincolnshire, at Suez, Egypt, on January 24, aged 30.

VACANCIES.

In the following list the nature of the office vacant, the qualifications required in the Candidate, the person to whom application should be made, and the day of election (as far as known) are stated in succession.

BRIDGNORTH INFIRMARY AND DISPENSARY.—House-Surgeon. Applications, with testimonials, to Alfred Mathias, Esq., Hon. Secretary, Bridgnorth, on or before February 12.

COTON-HILL INSTITUTION FOR THE INSANE.—Assistant Medical Officer. Candidates must be duly qualified. Applications, with testimonials, to Dr. Hewson, Coton-hill, Stafford.

DERBYSHIRE GENERAL INFIRMARY.—House-Surgeon. Candidates must be M.R.C.S. Applications, with testimonials, to the Secretary, on or before February 7.

GENERAL HOSPITAL, NOTTINGHAM.—Physician. Candidates must be duly qualified. Applications, with testimonials, to the Chairman of the Qualification Committee, on or before March 10.

HOLBEACH UNION.—Medical Officer for the Sutton Bridge District. Applications, with testimonials, to the Clerk of the Union, on or before March 15.

HOSPITAL FOR SICK CHILDREN, 49, GREAT ORMOND-STREET.—Assistant-Physician. Candidates must be F. or M.R.C.P. Lond. Applications, with testimonials, to the Secretary, on or before February 18.

HUDDERSFIELD INFIRMARY.—Physician. Particulars from the Honorary Secretary or House-Surgeon.

LEITH HOSPITAL.—Assistant-Surgeon. Applications, with testimonials, to Mr. Mann, 42, Bernard-street, Leith.

LITTLEMORE PAUPER LUNATIC ASYLUM, NEAR OXFORD.—Resident Assistant Medical Officer. Candidates must be duly qualified. Applications, with testimonials, to the Superintendent, on or before February 23.

MIDHURST UNION, SUSSEX.—Medical Officer. Candidates must be duly qualified. Applications, with testimonials, to Edwin Alberry, Clerk, on or before February 9.

NARBERTH UNION.—Medical Officer. Candidates must be duly qualified. Applications, with testimonials, to Mr. John Thomas, Clerk, on or before March 21.

NORTHUMBERLAND PAUPER LUNATIC ASYLUM, ALNWICK.—Resident Medical Superintendent. Applications, with testimonials, to W. Dickson, Clerk to the Committee, Alnwick, on or before February 9.

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SHEFFIELD GENERAL INFIRMARY.—Assistant House-Surgeon. Candidates must be duly qualified. Applications, with testimonials, to the Medical Staff, care of the Secretary, on or before February 10.

ST. MARY'S HOSPITAL, PADDINGTON.—Aural Surgeon. Applications, with testimonials, to the Secretary, on or before February 14.

SALOP AND MONTGOMERY COUNTIES LUNATIC ASYLUM.—Assistant Medical Officer. Candidates must be duly qualified. Applications, with testimonials, to Mr. G. De Courcy Peele, Clerk to the Visitors, Shrewsbury, on or before February 13.

STAFFORDSHIRE GENERAL INFIRMARY, STAFFORD.—Assistant to the House-Surgeon. Applications, with testimonials, to the House-Surgeon, on or before February 13.

STOCKBRIDGE UNION.—Medical Officer of Health. Candidates must be duly qualified. Applications, with testimonials, to G. M. Footner, Clerk to the Union, Romsey, on or before February 17.

TORBAY INFIRMARY AND DISPENSARY, TORQUAY.—House-Surgeon and Secretary. Candidates must be duly qualified. Applications, with testimonials, to the Secretary, on or before March 7.

WESTMINSTER HOSPITAL.—Assistant-Surgeon. Candidates must be F.R.C.S. Eng. Each candidate must attend (with his testimonials) the House Committee on February 10.

UNION AND PAROCHIAL MEDICAL SERVICE.

*** The area of each district is stated in acres. The population is computed according to the census of 1871.

RESIGNATIONS.

Axminster Union.—Mr. David S. Skinner has resigned the Lyme Regis District; area 4540; population 3559; salary £58 10s. per annum.

Midhurst Union.—The Tillington District is vacant; area 10,231; population 2189; salary £60 per annum.

Narberth Union.—Mr. Thomas G. Bush has resigned the First District; population 5844; salary £35 per annum; and the Workhouse; salary £20 per annum.

Thetford Union.—The Croxton District is vacant; area 19,771; population 2517; salary £43 9s. per annum.

APPOINTMENTS.

Bristol.—Mr. William Walter Stoddart, as Analyst for the City and County of Bristol.

Ecclesall Bierlow Union.—Herbert J. Hardwicke, L.R.C.P. Edin., L.F.P.& S. Glasg., to the Second District.

Glanford Brigg Union.—Robert H. Paterson, M.R.C.S. Eng., L.S.A., L.R.C.P. Edin., to the Scunthorpe District.

WE have received a copy of the instructions drawn up by the Director-General for the guidance of the senior medical officer on board the *Victor Emmanuel* hospital-ship at Cape Coast Castle. The responsibilities of the navy and army respectively are first distinctly set forth, but the greater part of the instruction relates to the arrangements for the removal of invalids from the Gold Coast, and to the sanitary arrangements on board. The substance of these instructions has been already given in our weekly articles on the war on the Gold Coast.

MR. LAWSON TAIT writes to say that having found oil of cloves the best disinfectant yet used for sponge-tents, he has had some soap made with about 5 per cent. of the oil in it, and he finds that it completely destroys any disagreeable odour on the hands after operations, vaginal examinations, etc. The specimens forwarded to us possess the ordinary properties of good honey soap, and have no very marked odour; if, therefore, it should be found that the soap has good deodorant qualities, it will prove of great value.

ON Thursday evening, January 19, at the Café Royal, Edinburgh, a farewell complimentary banquet was given by the Australian medical students of the University of Edinburgh to John Wilson Alston, B.A. (Sydney), M.B., C.M. (Edin.). This gentleman in 1873 was awarded the Ettles Prize, as being first graduate of his year (Univ. Edin.). Dr. Alston also obtained a similar honour at the University of Sydney in 1870, when he received the Gilchrist Scholarship of £100 a year (tenable for three years). Dr. Alston proceeds shortly to Sydney—the land of his birth,—carrying with him the warm wishes of his Australian countrymen and fellow-students, to all of whom he has proved a worthy friend.

THE ACADÉMIE DES SCIENCES.—At the meeting of January 26 the vacancy in the Section of Anatomy and Zoology, caused by the death of M. Coste, was filled up. The Section presented its list, with the names ranged in the following order:—M. Paul Gervais, M. Alphonse Milne-Edwards, and M. Dareste. Of the fifty-eight members present, thirty-three voted for M. Gervais and twenty-four for M. Alphonse Milne-Edwards. The Section is now complete, and consists of MM. H. Milne-Edwards, De Quatrefages, Blanchard, Robin, Lacaze-Duthiers, and P. Gervais.

ACADÉMIE DE MÉDECINE.—M. Trélat has just been elected into the Section of Surgical Pathology, after a vigorous contest. The Section had presented for election the name of Professor Maurice Perrin, of the Val-de-Grâce, on the first line, and the names of M. Trélat and Leon le Fort, *ex æquo*, on the second. But the all-predominant influence of the Faculty of Medicine, of which M. Trélat is a professor, was too strong for military medicine, and the famous *cedant arma togæ* has once more received an application. Of eighty-one voters, forty-five voted for M. Trélat, and thirty-six for M. Perrin.—*Union Méd.*, January 22.

APOLLINARIS WATER.—We are glad to learn that a company has been formed, with offices at 19, Regent-street, for the purpose of importing the valuable effervescent mineral water known as the Apollinaris Water. This water is the product of a spring in the valley of the Ahr, not far from the Rhine, and has qualities intermediate between those of the Seltersbrunnen of Nassau and the Krähnchen at Ems. It is perhaps the best natural mineral water for table purposes, and far excels the ordinary manufactured aërated waters, especially in this respect,—that after withdrawing a portion of the contents of a bottle, it may be corked and set aside for even twenty-four hours, after which it will be found brisk as ever, instead of being flat and vapid like ordinary seltzer. Apollinaris Water contains a considerable proportion of sodium salts, mainly carbonate, chloride, and sulphate, and will from these probably be found to act much in the same way as Ems water does in catarrhal affections of mucous membrane, for which that water is so renowned. But speaking merely from the lower standpoint, we think that Apollinaris Water is certain, when better known in this country, to take a high place as a beverage.

NOTES, QUERIES, AND REPLIES.

He that questioneth much shall learn much.—*Bacon.*

*** Mr. Charles Hawkins writes to say that it was a north-east wind that Brodie objected to when he had an opportunity of selecting a time for operating. The north-east wind is dry and cold, and usually corresponds with rather a high state of the barometer. Mr. Addinel Hewson's paper occurs in the *Philadelphia Hospital Reports*.

Principals and Assistants.—Under this heading we have received a very lengthy communication asking for our opinion on the circumstances detailed. As matters of this kind are always of importance to the general community of the profession, as well as to the parties more immediately concerned, we place the matter on record, suppressing names. A is assistant to B, first unqualified, but remains with him until he has obtained the L.S.A., and for some time afterwards. B leaves town, and his practice in sole charge of A, who appears to have performed his duties in an exemplary manner. C, a neighbouring practitioner, observing this, and knowing B well, and for whom he was in the habit of acting in cases of emergency, asks A also to take charge of his (C's) practice for a short time whilst he takes a holiday in the country. This is arranged, and A does the practice of both gentlemen, and apparently with satisfaction to both. On the return of B, he was angry with A for having taking charge of both practices, but for what reason is not stated. On the return of C, A expected some acknowledgment for the services he had rendered him, and after waiting for some time, wrote C a short letter reminding him of the circumstances. C wrote in return a somewhat offensive letter to the effect that he was under no obligation to A, but to B, "in whose service" A was. However, he sent him a cheque for five guineas, of which he requested an acknowledgment, and says—"You will please understand that I nevertheless consider myself under the obligation to B, which this payment does not in any way cancel." C subsequently met B, and told him all the circumstances, upon which B wrote to A (who had left him), and in angry words demanded the handing over of the five guineas to himself, and also some fees which A had received for giving evidence in a county-court case, in which A and B were both concerned. The question put to us is this—Who is entitled to the five guineas—B or A? We should say *legally* B is entitled; *equitably* that A is. It is a dispute which ought never to have taken place. It was the duty of C to make some acknowledgment to A without being asked, more particularly as A had officiated for C on many occasions. A should have offered the fee to B, who of course would not have accepted it. The fees at the county court, as the evidence given was that of a *qualified* practitioner, and as B also gave evidence in the case, were unquestionably the right of A.

Inquirer.—Dr. Lyon is the secretary of the Bombay Medical and Physical Society.

A Young M.D., Edin.—Professional etiquette ought to have dictated the course suggested in the case under the circumstances stated. "M.D." is right in maintaining his position.

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We have received the following communication from Kiel in reference to the "Notes" on the University of that town which lately appeared in our columns. We hasten to correct the mistake into which our correspondent undoubtedly fell, but which is less culpable, considering the unsettled state of the Schleswig-Holstein Provinces before their transfer to Prussia in 1864:—

"In the first number of the *Medical Times and Gazette* for the current year is a communication upon the University of Kiel, written, on the whole, with very accurate knowledge of the place. I find, however, that in one respect the author has fallen into serious error when he says that previous to 1864 Kiel was a Danish University and town. Kiel was never a Danish university; it was always the University of the German Duchy of Schleswig-Holstein. All the professors were German, with the exception of Von Panum, who was a Schleswiger, though educated in Germany, and Professor Molbach, the teacher of the Danish language. A large number of distinguished professors, at various German universities, have first begun to teach in the University of Kiel. In medicine and surgery alone may be mentioned Stromeyer, Von Langenbeck, Frerichs, Günther, Griesinger, and Pfaff. Moreover, the former inhabitants of Kiel were always good Germans, never Danes. In 1848, when the Danes wished to possess themselves of the Duchy, the students of Kiel took up arms and shed their blood in the first engagement at Flensburg. Esmarch, although at the time one of Langenbeck's assistants, was a lieutenant in this corps."

G. B.—The idea that the heat of the uterus during labour may rise to 120° Fahr. rests on the authority of Sir E. Home, which is not very great at the present day.

Professor Wilson, F.R.S.—This gentleman, who is lecturing every Monday, Wednesday, and Friday in the theatre of the Royal College of Surgeons on Dermatology, will bring his course of lectures to a close on Friday next.

Peculiarity of the Plantaris Muscle.

TO THE EDITOR OF THE MEDICAL TIMES AND GAZETTE.

SIR,—The following observation may interest your readers:—The tendon of the plantaris muscle lying behind the leg, and extending from the knee to the inner side of the os calcis is curiously elastic. If you take hold of the tendon with your finger- and thumb-nails on each side, it will stretch out like a piece of satin an inch or more in width, and then, by extending it longitudinally, it will return to its original state.

I am, &c., JOHN FORSTER, M.R.C.S. Eng., etc.

Hindmarsh, Adelaide, S.A., December 4, 1873.

S. L. M.—The Local Government Board has laid down that the master of a workhouse has entire control of the nurses and subordinate officials throughout the building; and of the inmates, excepting so far as the medical treatment of the patients in the infirmary is concerned.

Griffa.—The lines—

"To show by one satiric touch
No nation needed it so much,"

were written by Jonathan Swift, who bequeathed the greater part of his fortune to a hospital for lunatics and idiots, the intention of which he had announced in the verses upon his own death. He died in 1745.

F. M. S.—The Croonian Lecture "On the Structure and Uses of the Membrana Tympani of the Ear," by Mr. Everard Home, was read to the Royal Society on November 7, 1799.

Nemo.—"Practical Treatise on Diseases of the Skin," p. 251, third edition, 1863.

S. M. L. E.—See a case where the patient, aged 20, had had the disease "from the first time he was able to take notice of things" (*Philosophical Transactions*, vol. iii., p. 38).

Spes is thanked.

Aqua.—Mr. Deacon's paper "On Water and Constant-Service in our Water Supply," read on the 3rd ult. before the Lancashire and Cheshire Committee of the Association of Municipal and Sanitary Engineers, has been printed in the *Engineer* of January 23, and is a very able production.

Lectures on Dermatology.

TO THE EDITOR OF THE MEDICAL TIMES AND GAZETTE.

SIR,—The following is the syllabus of the course of lectures by Professor Wilson, F.R.S., which was commenced in the theatre of the College of Surgeons on Monday, February 2:—

Object of the Lectures.—The skin, as an organ liable to similar pathological processes to those of other organs of the body—for example, deranged circulation, innervation, and nutrition,—its more obvious component parts—as the rete mucosum, cuticle and nails, glands, and hair—being susceptible of betraying separately corresponding morbid processes. Inflammation of the skin is modified in relation to *cause*, which may be ordinary, and in that sense constitutional or local; or extraordinary, as in the instance of blood-poisons; or it may be dystrophic, and lead to aberration of nutrition, hypertrophy, atrophy, and degeneration.

Ordinary constitutional causes give rise to eczema, erythema and erysipelas, pemphigus and herpes, and furunculus with anthrax. Ordinary local causes are represented by the effects of heat, cold, chemical and mechanical irritation, and may be illustrated by scabies, the dermatitis of arnica, and the aniline pigments and ulceration from arsenic. Blood-poisons are the origin of the exanthematous fevers, syphilis, and elephantiasis Græcorum; and dystrophic causes are evidenced by lepra Græcorum, scrofula, lupus, lymphadenoma, xanthoma, epithelioma, and carcinoma.

The previous courses of lectures having passed these affections in successive review, from eczema to lepra Græcorum, the present course begins with the group of strumous affections, and thence passes on to the carcinomatous and other cacotrophic diseases.

Review and demonstration of models and preparations illustrating the past lectures added to the Dermatological Collection since the previous session:—

No. 560. Model of the leg, showing *lichen planus* in its retrograde and pigmentary stage.

No. 561. Model of the back of the hand and part of the forearm, showing *erythema papulosum* in its papulous and annular or retrograde form.

No. 562. Model of the thigh, showing erythematous *urticaria*.

No. 563. Model of the leg, showing *pemphigus gangrænosus*.

No. 564. Model of the side of the trunk, showing *erythematous* and *papular syphilis*.

No. 565. Model of the neck and shoulder, showing *papular syphilis* with abnormal pigmentation.

No. 566. Model of the face, showing *ulcerative syphilis* in the form of rupia, presumed to be congenital.

No. 567. Model of the back of the trunk and upper part of the thighs, showing *elephantiasis anæsthetica*.

Nos. 568-569. Two photographs of *elephantasis tuberosa*.

Pathological manifestations of elephantiasis; its treatment by the Gurjum balsam.

No. 570. Model of the back, showing *lepra Græcorum* or lepra vulgaris.

No. 571. Scales of *lepra Græcorum*, as they are found in the bed of a patient suffering under this disease, after rising in the morning.

General observations on the pathology of lepra Græcorum; its dystrophic nature; its relations to tubercular phthisis and cancer.

DERMATOSTRUMA: Group of strumous affections of the skin; general characters of dermatostruma, scrofulous inflammation, and ulceration; relations between scrofulous inflammation of the skin and lupus.

Nos. 314-322. Examples of dermatostruma.

No. 540. Model of the face, showing dermatostruma.

No. 323. Strumous onychia, with onychogryphosis.

No. 541. Strumous inflammation and ulceration of the mouth and gums.

No. 542. Strumous inflammation of the mouth, gums, and nose.

No. 572. Defective structure of the teeth induced by strumous inflammation.

Review of the instruction to be gained by the study of the foregoing examples of strumous disease; transition of dermatostruma into lupus.

LUPUS VULGARIS:—Nos. 324-329. Models and casts, showing lupus of the nose and cheeks, and its destructive consequences; artificial contrivances to replace a lost nose.

LUPUS NON EXEDENS: Series of specimens illustrating this disease; general features of the affection; its pathological nature and relations.

Nos. 330-339. Models and casts of lupus non exedens, representing the stages and progress of the disease.

LUPUS ERYTHEMATOSUS: General considerations relating to the pathology of the disease.

Nos. 540-543; also Nos. 572 and 573. Examples of lupus erythematosus.

Pathological anatomy of lupus erythematosus; Neumann's researches; comparison with lupus vulgaris; statistics of lupus erythematosus; cause, diagnosis, and treatment of strumous affections.

LYMPHADENOMA:—Nos. 405, 406, 407. Remarkable illustration of lymphadenoid disease, termed by Alibert mycosis fungoides; pathology of the affection; morbid anatomy.

Nos. 48-51 and 132. Probable examples of lymphadenoma; therapeutic treatment.

XANTHOMA; vitiligoidea; xanthelasma:—No. 408. Water-colour study of xanthoma palpebrarum.

Nos. 409-410. Models of the hand and buttocks of a boy, showing xanthomatous formations and tubercles.

Nos. 411, 412, and 413. Photograph and casts of the hand of a fatal case of xanthoma.

Indications for treatment.

CARCINOMATOUS AFFECTIONS: EPITHELIOMA:—Nos. 343, 344. Model of the face, showing epithelioma.

No. 345. Epithelioma of the nose.

No. 346. Epithelioma of the ear.

No. 347. Epithelioma of the nares and upper lip.

No. 348. Epitheliomatous growth around the aperture of the mouth.

No. 527. Encephaloid tumours of the skin.

Nos. 505-507; also preparation 2270b. Encephaloid tumours and ulcerations of the skin; further illustrated by No. 2303.

Treatment of the carcinomatous affections.

I am, &c., EDWARD TRIMMER, Secretary.

Dr. McM., Army and Navy Club.—You will find an accoumt of the Hounslow Inquest on the Soldiers in vols. xiv. and xv. of the *Medical Times*. The Rev. Mr. Trimmer supplied the information to Mr. Wakley. For the severe remarks by this journal on the conduct of the coroner, legal proceedings were instituted by that functionary, but signally failed. Lord Denman in an elaborate review "discharged the rule."

Dr. Willan.—It formed the subject of Professor Wilson's lecture on Tuesday. Bontius states that leprosy was observed on the banks of the Ganges, where it was known by the name of "Cowrap." On the coast of Malabar it is called "Cochin-leg"; in Iceland it is called "Likraa"; in Norway, "Radesyge" or "Spedalskhed"; in Surinam, "Boasi"; the Hebrews called it "Berat."

J. M. C.—To Mr. G. A. Walker, M.R.C.S. Eng., is unquestionably due all the credit for abolishing the inhumation of our dead in the metropolitan churchyards. In England the custom of burying the dead in churches was first sanctioned by Cuthbert, Archbishop of Canterbury, in 758. It had been previously forbidden by Augustine, who had decreed that no corpse, either of prince or prelate, should be buried within the walls of a city. Mr. Walker has retired from practice.

Dr. F. W.—The mummy of Horsiesi, an incense-bearing priest in the Temple of Ammon at Thebes, was unrolled in the theatre of the Royal College of Surgeons by the late Mr. Pettigrew. You will find both mummy and its beautifully painted case in the museum of the College.

M.D., Greenwich.—Mr. J. B. Langley is a member of the London College of Surgeons. The other title is a honorary one from America—we believe, Philadelphia. Although again defeated, Mr. Smee polled sufficient votes to justify him in standing for Rochester.

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Ouvier.—Professor Parker will lecture instead of Mr. Flower, whose health continues to improve on his way to the First Cataract.

St. George's.—"Yes" to the first inquiry; to the second, you will find Sir Benjamin Brodie's lecture on "Diseases of the Shoulder-joint" in the *Medical Times and Gazette*, vol. xvi., p. 4.

COMMUNICATIONS have been received from—
Dr. Wilks, London; Mr. Vincent, London; Mr. T. P. Pick, London; Mr. C. Hawkins, London; Dr. J. A. Thompson, London; Mr. Lawson Tait, Birmingham; A Subscriber; Dr. Morehead, Edinburgh; Mr. Spencer Watson, London; Mr. John Chatto, London; Dr. J. Hughlings-Jackson, London; Dr. Andrew Clark, London; Dr. A. M. Hynes, Manchester; Dr. Adams, Caterham; Mr. Poole, London; Dr. Edwards-Crisp, London.

BOOKS RECEIVED—
Hinton's Place of the Physician—Wilson's Student's Guide to Zoology—Hamilton on Syphilitic Osteitis and Periostitis—Third Annual Report of the Committee of Management of the Metropolitan Imbecile Asylum, Caterham—Report of the Health of the Borough of Birmingham, by Alfred Hill, M.D., Medical Officer of Health—Morison on Bone Absorption by means of Giant Cells.

PERIODICALS AND NEWSPAPERS RECEIVED—
The Student's Journal and Hospital Gazette=Gazette Hebdomadaire—Gazette Médicale—La Tribune Médicale—La France Médicale—The Obstetrical Journal of Great Britain and Ireland—Le Bulletin Général de Thérapeutique—Le Progrès Medical—Le Mouvement Médical—American Journal of Medical Science—Archives Générales de Médecine—Lancet—British Medical Journal—The Lincoln Gazette—Birmingham Medical Review—Pharmaceutical Journal—Canada Medical and Surgical Journal—Gazette des Hôpitaux—Retford and Gainsborough Times—Medical Press and Circular—London Medical Record—Science Gossip—Monthly Microscopical Journal—Grant College Students' Journal—O Correio Medico de Lisboa—Edinburgh Medical Journal—Atlas of Portraits of Diseases of the Skin, issued by the New Sydenham Society, comprising plates 36, 37, 38.

APPOINTMENTS FOR THE WEEK.

February 7. Saturday (this day).

Operations at St. Bartholomew's, 1½ p.m.; King's College, 2 p.m.; Charing-cross, 2 p.m.; Royal Free, 9 a.m. and 2 p.m.; Hospital for Women, 2½ a.m.; Royal London Ophthalmic, 11 a.m.; Royal Westminster Ophthalmic, 1½ p.m.; St. Thomas's, 9½ a.m.

9. Monday.

Operations at the Metropolitan Free, 2 p.m.; St. Mark's Hospital for Diseases of the Rectum, 2 p.m.; St. Peter's Hospital for Stone, 3 p.m.; Royal London Ophthalmic, 11 a.m.; Royal Westminster Ophthalmic, 1½ p.m.

Medical Society of London, 8½ p.m. Mr. Maunder will exhibit a patient, the subject of Excision of the Ankle-joint; also the patient's child, whose corresponding lower extremity is short. Mr. Jabez Hogg will bring forward a Case of Hemiopia. Mr. J. Morgan (Dublin), "On a Fertile Source of Venereal Contagion, demonstrated by experimental research and direct proofs," illustrated by models and drawings.

Royal College of Surgeons of England, 4 p.m. Professor Erasmus Wilson's Lecture on "Dermatology."

10. Tuesday.

Operations at Guy's, 1½ p.m.; Westminster, 2 p.m.; National Orthopædic, Great Portland-street, 2 p.m.; Royal London Ophthalmic, 11 a.m.; Royal Westminster Ophthalmic, 1½ p.m.; West London, 3 p.m.

Anthropological Institute, 8 p.m. Meeting.

Royal Institution, 3 p.m. Prof. Rutherford, "On Respiration."

Royal Medical and Chirurgical Society (Ballot, 8 p.m.), 8½ p.m. Drs. Hennessey and MacLaren, "On Cholera in the North-West Provinces of India." Mr. Howard Marsh, "On the Treatment of Rickety Deformities of the Legs by Operation."

11. Wednesday.

Operations at University College, 2 p.m.; St. Mary's, 1½ p.m.; Middlesex, 1 p.m.; London, 2 p.m.; St. Bartholomew's, 1½ p.m.; Great Northern, 2 p.m.; St. Thomas's, 1½ p.m.; Samaritan, 2½ p.m.; King's College (by Mr. Wood), 2 p.m.; Royal London Ophthalmic, 11 a.m.; Royal Westminster Ophthalmic, 1½ p.m.

Epidemiological Society, 8 p.m. Dr. Gavin Milroy, "Propositions on Quarantine in relation to Epidemic Cholera."

Royal College of Surgeons of England, 4 p.m. Professor Erasmus Wilson's Lecture on "Dermatology."

12. Thursday.

Operations at St. George's, 1 p.m.; Central London Ophthalmic, 1 p.m.; Royal Orthopædic, 2 p.m.; University College, 2 p.m.; Royal London Ophthalmic, 11 a.m.; Royal Westminster Ophthalmic, 1½ p.m.

Hunterian Society (London Institution), (Annual Meeting, 7 p.m.), 8 p.m. Oration.

Royal Institution, 3 p.m. Prof. P. M. Duncan, "On Palæontology with reference to Extinct Animals, and the Physical Geography of their time."

13. Friday.

Operations at Central London Ophthalmic, 2 p.m.; Royal London Ophthalmic, 11 a.m.; South London Ophthalmic, 2 p.m.; Royal Westminster Ophthalmic, 1½ p.m.; St. George's (ophthalmic operations), 1½ p.m.

Clinical Society, 8½ p.m. Adjourned Debate on Mr. Hewitt's paper "On Pyæmia." Dr. Cayley, "On a Case of Hæmoptysis." Mr. T. Warrington Haward, "On a Case of Blood-cyst of Hand."

Royal Institution (Weekly Evening Meeting, 8 p.m.), 9 p.m. Dr. Doran. "On the Opponents of Shakespeare."

Royal College of Surgeons of England, 4 p.m. Professor Erasmus Wilson's Lecture on "Dermatology."

VITAL STATISTICS OF LONDON.

Week ending Saturday, January 31.

BIRTHS.

Births of Boys, 1281; Girls, 1251; Total, 2532.
Average of 10 corresponding years 1864-73, 2286·8.

DEATHS.

	Males.	Females.	Total.
Deaths during the week	732	717	1449
Average of the ten years 1864-73	810·7	785·8	1596·5
Average corrected to increased population	...	...	1756
Deaths of people aged 80 and upwards	...	...	60

DEATHS IN SUB-DISTRICTS FROM EPIDEMICS.

	Population, 1871.	Small-pox.	Measles.	Scarlet Fever.	Diphtheria.	Whooping-cough.	Typhus.	Enteric (or Typhoid) Fever.	Simple continued Fever.	Diarrhœa.
West	561359	...	13	...	1	3	...	2	...	3
North	751729	...	20	3	3	15	1	3	1	1
Central ...	334369	...	2	1	...	10	2	1	...	3
East	639111	...	9	12	...	9	1	2	...	...
South	967692	...	13	4	4	13	1	4	5	6
Total	3254260	...	57	20	8	50	5	12	6	13

METEOROLOGY.

From Observations at the Greenwich Observatory.

Mean height of barometer	30·295 in.
Mean temperature	41·1°
Highest point of thermometer	49·2°
Lowest point of thermometer	28·1°
Mean dew-point temperature	36·7°
General direction of wind	N.W., W., & W.S.W.
Whole amount of rain in the week	0·02 in.

BIRTHS and DEATHS Registered and METEOROLOGY during the Week ending Saturday, January 31, 1874, in the following large Towns:—

Boroughs, etc. (Municipal boundaries for all except London.)	Estimated Population to middle of the year 1874.*	Persons to an Acre. (1874.)	Births Registered during the week ending Jan. 31.	Deaths Registered during the week ending Jan. 31.	Temperature of Air (Fahr.) Highest during the Week.	Lowest during the Week.	Weekly Mean of Mean Daily Values.	Temp. of Air (Cent.) Weekly Mean of Mean Daily Values.	Rain Fall. In Inches.	In Centimetres.
London	3400701	45·1	2532	1449	49·2	28·1	41·1	5·06	0·02	0·05
Portsmouth ...	120436	26·8	90	47	54·6	29·0	42·7	5·95	0·02	0·05
Norwich	82257	11·0	62	41	48·5	27·0	39·8	4·33	0·02	0·05
Bristol	192889	43·3	156	95	53·8	33·9	42·8	6·00	0·14	0·36
Wolverhampton ...	70896	20·9	53	21	50·0	32·3	41·9	5·50	0·00	0·00
Birmingham ...	360892	43·0	274	193	51·7	33·8	43·1	6·17	0·00	0·00
Leicester	106202	33·2	75	38	51·5	29·5	42·0	5·56	0·00	0·00
Nottingham ...	90894	45·5	67	49	52·8	27·7	41·4	5·22	0·01	0·03
Liverpool	510640	98·0	373	242	50·2	40·3	44·2	6·78	0·03	0·08
Manchester ...	355339	82·8	269	163	50·0	29·5	42·4	5·78	0·19	0·48
Salford	133068	25·7	131	74	50·3	28·9	42·5	5·84	0·08	0·20
Oldham	86281	18·5	57	36	48·0	...	...	...	0·09	0·23
Bradford	163056	22·6	160	71	49·8	31·8	43·0	6·11	0·01	0·03
Leeds	278798	12·9	202	142	50·0	32·8	42·9	6·06	0·02	0·05
Sheffield	261029	13·3	233	105	51·0	29·5	42·6	5·89	0·00	0·00
Hull	130996	36·0	101	61	51·0	25·0	41·4	5·22	0·00	0·00
Sunderland ...	104378	31·6	59	34	...	...	...	...	...	...
Newcastle-on-Tyne	135437	25·2	135	54	...	...	...	...	...	...
Edinburgh	211691	47·8	128	98	...	...	...	...	...	...
Glasgow	508109	100·4	376	268	50·2	30·9	43·3	6·28	0·20	0·51
Dublin	314666	31·3	162	183	49·3	37·7	42·6	5·89	0·05	0·13
Total of 21 Towns in United Kingdm	7618655	36·6	5695	3464	54·6	25·0	42·3	5·73	0·05	0·13

At the Royal Observatory, Greenwich, the mean reading of the barometer last week was 30·30 in. The highest was 30·39 in. on both Sunday evening and Wednesday morning, and the lowest 30·15 in. on Thursday afternoon.

* The figures for the English and Scottish towns are the numbers enumerated in April, 1871, raised to the middle of 1874 by the addition of three years and a quarter's increase, calculated on the rate which prevailed between 1861 and 1871. The population of Dublin is taken as stationary at the number enumerated in April, 1871.

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ORIGINAL LECTURES.

CLINICAL LECTURES DELIVERED IN MIDDLESEX HOSPITAL.

By JOHN W. HULKE, F.R.S.

ON CASES OF FRACTURE OF THE SPINAL COLUMN.

To-day, gentlemen, I ask your attention to a *résumé* of cases of fracture of the vertebral column, three of which within a short time you have had an opportunity of watching at the bedside. These, as I believe every other case admitted into the hospital for a long time past, were all caused by indirect violence bending forcibly the vertebral column beyond the limit of its elasticity. Two of them, as also a third to which I shall refer, although it happened some time ago, were occasioned by falls upon the head, one of the commonest causes by which the spine is broken at the root of the neck or in the upper part of the dorsal region. Next in frequency are falls in which the front of the trunk strikes athwart some narrow rigid body, as the put-log of a scaffold. When the back, and not the front, of the trunk comes into contact with the object by which it is broken, it is not always possible to apportion the respective shares in which the direct blow and the excessive flexion of the column have conduced to its fracture; it is, however, of small moment. Fractures by direct violence are less frequent in civil hospitals than in military life, where gunshot is a very fertile and usually very fatal cause of them. Always very serious accidents, and too frequently fatal from the injury they entail upon the spinal cord, fractures of the vertebral column have a risk chiefly proportionate to their proximity to the upper end of the cord. When they happen at the top of the neck, they may prove instantly fatal, as was the case with the man from whom this preparation of fracture of the odontoid process by a pistol-bullet was taken. The bullet also cut across the spinal cord, and the man, who was asleep, is related not to have moved. Of fractures in the lumbar region, a considerable number recover.

The first case which I shall read is that of a tin-plate worker, who fell off the roof of a house from which he was shovelling snow, on February 23, 1873, and was brought at once from Islington to the hospital by his mates, who were alarmed by finding that he could not stand. He had motor paralysis of both lower extremities; that of the right complete, that of the left nearly so. Reflex irritability was also completely absent from the right limb, but tickling the left sole excited feeble movements of the toes of this foot. Sensibility was not appreciably blunted in either limb. The spinous processes of five dorsal vertebræ, from the fourth to eighth inclusive, were overlaid by a puffy tender swelling. His face was pale; pulse small and weak. He complained of severe pain in the pit of the stomach (increased by pressure), and had little pain in the back except when he tried to move. He was unable to micturate.

Since some to whom I am speaking are first year's students, as yet perhaps unacquainted with the functions of the spinal cord, I will very shortly for your benefit explain so much of what is known respecting them as is necessary for your intelligent apprehension of the symptoms just narrated. When one of the white antero-lateral columns of the cord has been cut across with a sharp knife (without damaging the corresponding half of the grey substance), the voluntary muscles on the same side of the body deriving their nerves from the part of the cord below the section no longer obey the will—they are, as we say, paralysed. If the corresponding half of the grey matter be also divided, in addition to motor paralysis of the same side, sensation upon the opposite side of the body is diminished. Where both antero-lateral columns are so cut across as to leave a small piece of the central grey substance undivided, while there is complete motor paralysis below the section, sensation, though impaired, is not annihilated. Complete division of the entire cord entails absolute loss of sensation and of voluntary motor power below it, but the muscles may still contract when the sensory nerves are stimulated, as by pricking or tickling the skin. The antero-lateral columns, then, transmit efferent motor impulses from the brain along the cord to the muscles. The grey substance conducts sensory impressions from the surface of the body to the brain; and when the brainward path of these afferent impressions is broken, they may still excite muscular movements, of the occurrence of which the person is not necessarily conscious.

To return to our case. The complete motor paraplegia on the right side, and nearly complete on the left, indicated very considerable damage of both antero-lateral columns, the right being rather more deeply injured than the left; while the persistence of sensation in the motionless limbs proved that the grey substance had not been seriously compromised.

Whether this damage was beyond repair there were no means of knowing at the moment. If it were not so, and his life could be maintained for a sufficient time, there was some probability of his recovery. The situation of the injury, far below the origin of the phrenic nerves, and of those distributed to the scaleni and other coagents of extraordinary respiration, removed any particular apprehension of a speedy, unavoidable fatal termination by suffocation.

He was placed upon a couple of horsehair mattresses, with a water-pillow under his buttocks, which insures, I think, greater rest to the fracture than a spring-bed or a large water-bed on which the whole body is floated. Small doses of opium were given him from time to time,—enough to keep him easy. His bladder was emptied with a catheter four times in the twenty-four hours. After use this catheter was carefully washed; it was kept for this patient only, and carbolised oil was always used to lubricate it. The greatest attainable rest of the fracture, the prevention of bedsores and of cystitis with its sequelæ, were the objects of these precautions. On the third day he was gratified to find that he could in some measure empty his bladder. We did not think it safe to trust to this, but ordered the catheter to be still used. The paraplegia was unchanged. Next day (February 26) his bladder was irritable; as soon as he felt the desire to micturate, the contents were forcibly expelled before he could reach the vessel at his side. Twenty-four hours later the urine had an alkaline reaction, and it deposited a considerable layer of viscid mucus. Our precautions against cystitis had failed. From this time until his convalescence, whenever the catheter was used, the bladder was washed out with a solution of carbolic or of sulphurous acid. On this day his belly was very tympanitic and also tender, the tenderness being extreme over the liver. Thinking that this might have been bruised in the fall and had become inflamed, eight leeches were put on, and calomel gr. ss., with opium gr. ss., were given him every two hours. When the leeches dropped off, the whole belly was covered with a hot linseed poultice. These measures soon relieved the symptoms. On March 1 he was troubled throughout the night with a burning pain in the right sole, which in the course of the day extended up the leg. The paraplegia of this limb continued unaltered, but by a very strong effort of the will he could slightly draw up his left leg and bend and extend the toes. On the 4th he complained of great pain in the back at the seat of injury. For this he was very gently turned on his side, while six leeches were applied to the back, and potass. iod. gr. v. were ordered to be taken three times a day. A small red spot was now noticed on his sacrum. On the following day his back was, he said, quite easy, and the burning pain in the right leg was also less. This leg still continued perfectly paralysed, while the voluntary mobility of the left leg had appreciably improved. On March 7 he could completely empty his bladder, and the urine (still alkaline) contained less mucus. On the 10th he complained of sharp twinges in the back at the fracture. At 1.30 p.m. his bowels were moved for the first time since the injury (sixteenth day). Though warned not to make any effort, he strained much at stool, and soon after had a severe rigor, during which his axillary temperature (before normal) reached 101°, and his pulse 122. A return of the tenderness and pain in the hypochondrium, with a dry tongue, soon followed. The calomel and opium pills were resumed, one being given every two hours. In twenty-four hours his gums were very slightly spongy, and the abdominal symptoms had disappeared. He now, for the first time, was able to very slightly move his right toes and foot. At this date he had an attack of erysipelas of the face and scalp, which ran its course and resolved in almost one week. On March 25, the swelling having disappeared, the spinous process of the fifth dorsal vertebra was found to project visibly beyond the others and to be twisted slightly towards the left. On April 3 he could lift each leg off the bed and move it freely; the left was still stronger than the right. On the 13th his urine (for some weeks previously alkaline) was found to be acid, and from

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this time, as he had perfect command of his bladder, the catheter was laid aside. About this time the cuticle of the legs, which had long been dry and harsh, began to desquamate, and was shed in large flakes. At the end of May, as he had long been free from all uneasiness in the back, he was allowed to sit up for a short time wearing a spinal support. On June 9 he left his bed, and with assistance walked a few steps. He was soon up all day. On the 17th of this month he could walk fairly short distances, and was sent to a convalescent hospital. He has since resumed work.

Here, then, is a case of fracture of the fifth dorsal vertebra attended with motor paraplegia complete in the right and nearly so in the left limb, complicated with a severe bruise of the belly, in the course of which limited inflammation at the fracture, peritonitis, and subsequently cystitis ensued, where voluntary motion began to return in the left limb on the seventh, in the right limb about the seventeenth day after the accident, and was finally perfectly restored. The relief afforded by leeching the back (a proceeding feared by some surgeons as conducive to bedsores) was marked. It is also worthy of notice, though too much stress should not be laid upon it, that careful attention to the cleanness of the catheter, and carbolised oil—precautions against the introduction into the bladder of septic germs—failed to prevent cystitis and alkaline urine.

At 6.45 p.m., June 21, 1873, a brass-finisher, thirty-six years old, was taken into Brodripp ward, having a short time before fallen from the roof of an omnibus, upon his head. He was said, by those who brought him to the hospital, to have been drinking. He was quite unconscious. Above his right eye was a graze and slight bruise, and over the left parietal bone was a scalp-wound. He did not move his legs. He breathed slowly, and his pulse was small and weak. The stupor and shock were referred to concussion and intoxication. At 9 p.m. he occasionally groaned. When loudly spoken to, he opened his eyes, but did not reply. At 11 p.m. he was more conscious, and gave his name and address correctly. Next morning, when I first saw him, consciousness was complete. He said that he had passed a restless night, owing to pain between his shoulders, and the spinous process of one of the dorsal vertebræ was observed to be unnaturally prominent. Voluntary motor power, reflex irritability and sensation were completely absent as high as the nipples. He breathed principally with the diaphragm; the upper intercostal spaces opened slightly in inspiration, while the lower ones remained unvaried in width. He could not micturate, and he had slight priapism.

You will have observed an important difference from the symptoms of the first case in the complete loss of sensibility in the paralysed parts, and will have understood its meaning—a much deeper lesion, not merely destroying the conductivity of the white antero-lateral columns, but also that of the entire sectional area of grey substance at the level of the fracture. On the 25th (second day), feeble movements of the toes were excitable by tickling or pricking the soles, but he was quite unconscious of their occurrence and of being touched. On the 27th he had much pain in the back at the seat of injury. For this he was gently laid on his side and four leeches were put on round the projecting spinous process. He said that this greatly relieved him. On the 30th (ninth day), although a water-pillow had been used from the first, a bedsore began to form over his sacrum, and a small quantity of pus was now noticed in the urine, which still had an acid reaction. Besides emptying thoroughly his bladder four times per twenty-four hours with the catheter, the bladder was from this time always washed out with a solution of sulphurous or carbolic acid, in spite of which the urine became alkaline and muco-purulent. On July 7 he had diarrhœa. The first bedsore had enlarged, and another formed near it. In order to relieve these he was laid on his left side for two hours, and next morning two large blebs were noticed upon his left hip. On July 14 the bedsores were noticed to be much larger in area; some of the raw surfaces exposed by exfoliation of sloughs were covered with granulations, but there were not any appearances of cicatrisation. For several days once in twenty-four hours he had passed unconsciously a loose stool. The paralyses, motor and sensory, continued unchanged, and the slight reflex irritability of the toes noted on the second day had been for some time lost. His temperature, at first little varying from a normal average, had latterly been higher. Early in August, sores formed over the dorsal spinous processes, about the seat of injury. On the 25th of this month a sense of tight constriction round the chest at the meeting-line of the anæsthetic and sensitive parts distressed him much; he had previously complained occasionally slightly of it. In the night he had a distinct rigor. Next day the quantity of urine, until then abundant, was much diminished; he also vomited. Another rigor occurred on the 29th. After the 26th very little urine was secreted; scarcely any was found in the bottle in which his penis always dipped, and his bladder was often empty when the catheter was passed. Although the catheter had been used four times in the twenty-four hours ever since the injury, and from the first appearance of pus in the urine an acid antiseptic had been injected until it flowed out quite clear, the urine had become very ammoniacal and very purulent. He died on the 30th, seventy days after the injury.

Our Registrar, Mr. A. Clark, reported that at the examination of the body next day the spinous processes, with portions of the laminæ, of the seventh, eighth, and ninth dorsal vertebræ, were found broken off from their respective centres; the eighth dorsal centrum (bearing with it the part of the vertebral column above it) was displaced forwards, its front being one inch in advance of the same part of the ninth; the intervertebral disc, detached from both of these vertebræ, was squeezed from between them into the vertebral canal, together with a large splinter. The spinal cord was here quite severed, the part above and that below being only held together by the sheath. The proximal and distal segments through a considerable space formed a scarcely coherent pulp.

The urinary bladder was small, the muscular coat thick, the mucosa very congested. The ureters and pelves of kidneys were also congested, and the latter were full of a sero-purulent fluid. The kidneys were large and soft.

This case, gentlemen, aptly illustrates the common mode of death in fractures of the spine attended with severe injury to the cord below the neck, where the patients survive the first few days after the accident. Here, although by great care and unremitting attention on the part of the ward attendants life was maintained during seventy days, bedsores with their sequel—septicæmia, cystitis followed by inflammation of ureters and kidneys, and finally suppression of urine—could not be ultimately averted.

The autopsy verified the diagnosis, which, in view of the complete annihilation of the cord's functions below the hurt, was scarcely avoidable—solution of continuity of the entire sectional area of the cord. But it also revealed a much greater disturbance of the vertebral column than could have been, I think, foreseen. It showed, too, that here any direct surgical interference would have availed nothing. The projecting spinous process was not that of the displaced eighth, but of the succeeding vertebra; and the removal of either or both—which, seeing they were already, together with their laminæ, detached, would have been an easy affair—would have been useless while the large splinter and the intervertebral disc were wedged between the front of the cord and the hinder surfaces of the vertebral centrum.

(To be continued.)

ON THE MODE OF ACTION OF IODINE AND ITS PREPARATIONS.

By PROFESSOR SÉE.

Iodine may be made to enter the system through different channels—viz., the digestive tube, the skin, the mucous membrane of the respiratory organs, and the serous cavities.

The digestive tube is the most certain and natural channel, and it is this which is nearly always taken advantage of. The tincture of iodine is scarcely ever prescribed internally—in fact, it possesses no advantages, but offers, on the contrary, certain inconveniences. If it remain in the stomach in the form of tincture, it produces a caustic effect on the mucous membrane of the digestive organ; but it always combines with a little soda or potash which it meets with in the stomach, and is converted into an iodated alkali. Hence it may be seen that those who administer iodine in its simple form are labouring under an erroneous impression if they imagine that the drug undergoes no change in the stomach.

The iodide of potassium should not be administered in the form of pills, as it is thus liable to produce a caustic effect on the mucous lining of the stomach; it should always be given in solution. And in prescribing this salt one should always bear

in mind that the greater the quantity of liquid in which it is dissolved, the better the absorption. There is, however, a certain limit to the quantity of fluid to be employed, which of course a physician will not exceed, and which it is scarcely necessary even to mention.

The skin has often been selected as the channel for iodine to enter the economy. In employing an ointment composed of iodine in the proportion of one part to ten parts, in certain cases an effect is produced, in others nothing is obtained,—that is to say, in certain cases iodine has entered the organism, in others it has remained on the skin. It is expedient to know under what circumstances the iodine has been absorbed. Divers explanations have been given to account for the above facts. According to Professor Sée, two conditions contribute to the absorption of iodine:—1. To make iodine enter by the skin, the epidermis, which acts as a barrier, must be destroyed. To effect this, strong and repeated frictions of iodine ointment will have to be employed; but it is evident these cannot be continued, and a single friction would be perfectly useless. 2. In examining these facts, it is found that there are cases in which the epidermis has not been in the least affected by the frictions, and in which, nevertheless, the absorption of iodine might be proved. This would appear to be in contradiction to what has just been stated above, but it might be explained by the extreme volatility of this metalloid. When iodine is rubbed into the skin in the form of ointment, it is found in the mucous membrane of the lungs; whereas when an ointment is made of an iodide, the latter is not found in the lungs, because it is not volatile, and does not contain free iodine. Thus it may be seen it is by the air-passages, and not by the skin, that the iodine entered the system; and in proof that this is the case, it is sufficient to leave a phial of iodine uncorked near oneself, and the latter will be absorbed without touching or putting it to the nose, for it is found in the secretions.

Quacks seem to have been aware of this phenomenon when they invented the sachets of the powder of iodine, iodised cotton, and iodised flannel vests which are to be worn next the skin. These divers agents possess a real therapeutic property; but the explanation of their action is the same as that given above—that is, the iodine they contain is absorbed by the air-passages, and not by the skin. If a piece of iodised cotton be placed on the arm, and covered with a watch-glass or a glass bell, nothing will be observed; but in a person who wears an iodised vest constantly, the iodine enters his economy, not by his skin, but by his nostrils.

Painting with the tincture of iodine has much the same action; we know to what extent this is now employed, and there is scarcely a pain, a case of scrofula or phthisis, in which it is not resorted to. In phthisical patients, the tincture of iodine externally has taken the place of blisters and cauteries; and the change is certainly to the advantage of the iodine; but its action is not that of blisters or cauteries. Here, also, the same explanation may be given of its action; but there is one effect which is scarcely suspected, and that is, when the tincture of iodine is sufficiently strong, or the painting too frequently renewed, the epidermis is destroyed. The iodine enters the fissures thus formed, and produces inflammation of the cellular tissue, as has been observed at post-mortem examinations. To produce a more direct action on the tubercles of phthisical patients, it would certainly be preferable to place an open phial of the tincture of iodine on a table near the patient, as has been practised by M. Piorry, in order that the iodine may be inhaled.

Iodine baths are also intended to act on the skin. These baths, which used to be much lauded, are now seldom or never employed, as their efficacy is very much questioned. It has been asserted that after an iodine bath this metalloid has been found in the urine. In this case, how did the iodine enter the body? Not by the skin, but by the air-passages; and even then such a result cannot be obtained unless the bath-room be hermetically closed, and the patient remain in the bath some time.

Fomentations are also intended as a means of effecting the absorption of certain medicaments into the tissues. These substances are varied, according to the effect desired—such as the tincture of iodine, laudanum, belladonna, etc. As with frictions, a real effect is sometimes obtained with fomentations, at other times none. This depends on the state of the skin, which is different in different individuals. If the skin be soft and pervious, iodine and the other substances may be absorbed; but it is difficult to know when the skin is in a favourable condition for absorption and when it is not. There exists normally on the skin an oily coating, which opposes the penetration of the iodide of potassium. A soap bath may remove this varnish, but it is immediately reproduced; and individuals who have greasy skins, whatever they may do, will never succeed in making their skin absorb the iodide.

The same may be said of baths composed of the mono-sulphuret of sodium. Little or nothing is absorbed unless the doors and windows are closed, for the sulphuretted hydrogen which is evolved is about the only active agent, as it is taken up by the respiratory apparatus. This would explain the superiority of the sulphurous waters—such as Luchon, Barèges, which whiten on being drawn—over those that do not whiten, as Amélie-les-Bains. Iodised baths owe their efficacy to the iodine being absorbed by the respiratory organs.

There are some natural iodated waters—but they are rare—in France; there are only those of Salins and Salies, in Béarn, and it must be admitted that they are not very rich in iodine. In Switzerland they have the waters of Saxony; in Prussia, those of Kreutznach. These latter cannot be replaced; they are those that contain the most iodide and bromide of potassium combined. Nevertheless, the French might still avoid going to Prussia by utilising hot sea-water baths. The sea-water, and particularly the sea-air, contain a certain proportion of iodine and bromine. But it must not be forgotten that this atmosphere does not extend very far, and that about 400 or 500 yards from the shore we get the breeze, but not the iodised air; to have the benefit of this, one must remain the whole day on the beach, or, what is still better, take up his residence on the sea-coast.

When iodine enters the economy it is easily detected, and is almost immediately found in the urine and in the saliva; but the whole is not found at once. The elimination of iodine takes place more rapidly when it is administered in the form of iodide; but in whatever manner it is given, when the iodine enters the blood it combines with the potassium contained in the corpuscles; and as the salts of potash are very diffusible, it is not surprising to find iodine in the urine almost immediately it enters the blood. Iodine remains in the economy longer than one would be led to suppose, judging from its facile elimination, and it is found in the saliva after its presence has ceased to be detected in the urine. The elimination of iodine is intermittent, and it has been frequently seen that an individual who had been eliminating iodine that he had been taking, ceases to eliminate for some time and then begins again to eliminate.

The same is the case with arsenic and mercury, particularly the latter. If you mercurialise a dog by friction, the animal may eliminate mercury during two months, two months and a half, even three months with complete intermission. This tardy elimination may be explained by the fact that the drug does not remain in the blood, but in the organs.

We have seen how iodine enters the blood, and, without stopping to inquire whether it is there in a state of free iodine, or of an iodated alkali, or of albuminate of iodine, we shall successively study its action on the blood, on the circulation, on innervation, on nutrition, and on the organs of elimination, which will be treated of in the next lecture.

ORIGINAL COMMUNICATIONS.

CASES OF NEUROSAL HEADACHE.

By C. HANDFIELD JONES, M.B. Cantab., F.R.S.,
Physician to St. Mary's Hospital.

(*Continued from page* 150.)

Case 9.—Miss ——, mid-age, seen February 25. The following account of her previous history was sent me by her medical attendant. She dates her decline in health from an attack of spinal congestion and hepatitis, with paralysis of the lower extremities, which was, however, after five years' confinement to bed, quite cured in New York. Since then for more than three years she has suffered from frequently recurring attacks of nervous sick headache, gradually increasing in frequency and severity, and lately complicated with spasm or convulsion of an epileptic character, partial—if not complete—unconsciousness, and foaming at the mouth. Right ventricle of heart appears thinned and dilated. Right jugular vein pulsates almost aneurismally. Veins of hands large. Pulse even, usually 72. No dyspeptic symptoms. Most relief obtained from medicine

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producing copious biliary stools. Stimulants and meat hardly ever taken. Sherry taken at my advice since the last attack. Has tried all forms of dieting without any benefit. The view taken by him of the case was—"Venous obstruction from weakness of right ventricle, causing portal, cerebral, and spinal congestion, ending in an explosion of epilepsy, with relief for the time until the venous system becomes again loaded."

Her face appeared to me dusky, as if the skin had been frequently congested. Her father had an attack of paralysis at forty-seven, and died at fifty-four. Both parents suffered much from headaches. After the "break-bone" fever (dengue) in America, she had what was called neuralgia of the liver, and often vomited quite black stuff. At times, while she is quite well, a vein on right side of neck suddenly begins to pulsate visibly, so as to be quite evident to a bystander. During her attacks of headache the veins of her temples are swollen and her head is hot. The attacks usually occur once or twice a week. After one severe attack the next is generally milder. The duration varies from twenty-four to thirty-six hours. The pain she suffers in the attacks is referred to the back and top of head, and is so intense that she thinks she would go crazy or die if it was any worse. Sometimes the attacks are attended with profuse bilious vomiting, and she is then yellow. Sometimes, in the worst attacks, her limbs start convulsively, or her jaw quivers. Her face, upper lip, and eyelids especially are swollen and congested during the attacks, which are often preceded by great drowsiness. Ice to her head relieves her most. After the headaches she has much pain in limbs and back. Her urine at the time of the attacks is quite like water and very copious. Headaches are mostly worse in hot weather. Her hands are always cold, but not her feet. Tongue quite natural. Pulse 96, of fair force. Heart's action quite quiet, and sounds normal. Sleeps pretty well, except the night after a headache. Sneezes much always. Has often pain under the right ribs, and lying on the left side causes uneasiness in the right. The seaside does not agree well with her.

Remarks.—It seems to me hardly doubtful that the disorder in this instance was *au fond* a neurosis. Attacks of intense pain in the head of short duration, recurring frequently for three years, not attended with any sign of organic intracranial lesion, but latterly with quasi-epileptic phenomena, copious pale urine, and bilious vomiting, and derived from parents, can hardly be regarded in any other light than as a severe form of hemicrania, though they were not limited, I believe, to one side of the head. The circumstance that epileptiform phenomena were present does not constitute, I conceive, any objection to this view. For in a general way it seems tolerably certain that what anæsthesia is in the sensory demesne, paralysis is in the motor; while hyperæsthesia in the former is the equivalent of convulsion in the latter. Given, therefore, a sensory disorder, as in this instance, of hyperæsthetic quality, it only needs to assume that the same morbid condition extends to, and involves, the motor centres to give rise to convulsions; and as a matter of fact, more or less convulsion, though usually limited to the part which is the seat of pain, is not infrequent in neuralgia. In severe internal suffering, as from gall-stones, the motor disorder may be more general. Frerichs says—"In irritable individuals reflex cramps occur, which may become aggravated into the most violent convulsions resembling epilepsy. . . . . Clonic spasm of the entire right half of the body may arise in this way, and lead to loss of consciousness." We next come to a phenomenon respecting which more doubt may be felt—viz., the hyperæmia which evidently existed during the attacks of headache, both within and without the cranium. This hyperæmia is regarded as passive in the report I have cited above, and as causative of the epileptic complication. This is not an improbable view, and seems to be confirmed by the statement that the right jugular vein occasionally began to pulsate visibly even while the patient seemed quite well. It appears, however, to me more likely that the hyperæmia was dependent on the cerebral disorder, for (1) it can hardly be doubted that the original affection was simple nervous sick-headache—an ordinary neurosis; (2) cerebral congestion produces dull rather than acute headache; (3) if there was venous obstruction from weakness of the right ventricle, the resulting effects must have been general, and not confined to the head; (4) it is not very apparent how an explosion of epilepsy can relieve a state of venous congestion from weakness of the right ventricle. With regard to the suddenly appearing pulsation of the right jugular vein, I cannot help suspecting that it may have been communicated from a throbbing carotid artery, and not true venous pulsation. Such pulsation in the arteries of weakly-nerved persons is very common, but is almost unknown in the veins. Hyperæmia, to an extent sufficient to cause notable dilatation of the veins, is far from being uncommon in paroxysmal headache, and seems to depend on paralytic dilatation of the arteries. In Case 1 (*vide* F. N. D., p. 426) there was violent throbbing at the vertex during the paroxysm, and in the intervals even the superficial veins of the neck were very large. In Case 6 (p. 428), during a very bad attack the patient's face was very much flushed, and the veins of the neck greatly distended. In Case 7, a medical *confrère* described his sensation while suffering as that the vessels of the brain were loaded, and obtained relief by throwing his head far back, which seemed to drain the vessels. The occurrence of hyperæmia of the head in connexion with neurotic headache is, therefore, evidently not unusual, and we may next inquire how it is produced. The following seems to me the most probable account of the matter:—Neurotic headache, like all such disorders, implies failure of nerve nutrition—an impairment of the normal processes which go on during health in nerve-tissue. These processes may perhaps be more active than in the normal state, but they are of a degraded kind. Nerve-force is no longer generated adequately, and the centres are, for the time, in a state of incomplete paralysis. Now, this state is no more necessarily associated with cerebral hyperæmia than neuralgia of a sensory nerve is; but just as the latter is sometimes attended with considerable hyperæmia of adjacent parts, which become very tender, swollen, and injected, so to some extent it may be with the cerebral substance. The nerve disorder in neuralgia complicated with hyperæmia evidently is the efficient cause of the latter, and in all probability operates by involving the accompanying vaso-motor nerves in the paresis of the sensory. So it is, I conceive, in such cases as those above cited: the centres governing the vasal nerves of the head participate in the general collapse of nerve-force which constitutes the paroxysm.

The bilious vomiting was not an essential symptom, not being always present. It probably depended on increased bile-flow being set up by paralysis of the hepatic plexus. The temporary jaundice occurring at the same time was, like that observed in polycholia, produced by absorption of the excess of secreted bile into the blood.

I had no opportunity of conducting treatment in this case; but the course to be pursued was pretty clear—viz., to strive to recreate nerve-power with phosphorus, cod-oil, and suitable air and food; and while doing this to calm hyper-excitability with K. Br. Tonics could be used, but sparingly; but liq. cinchonæ might have been added to the K. Br.

(To be continued.)

ON A

CASE OF NEURO-PARALYTIC KERATITIS.

By W. SPENCER WATSON, F.R.C.S.

ELIZABETH C., aged 41, was admitted as a patient of the Central London Ophthalmic Hospital on April 3, 1873. She is married; has had four children—two stillborn, and two that lived only seven months. Her mother died of phthisis. Her husband states that he was quite free from syphilis at the time of his marriage and ever since, though he thinks he had something of the kind ten years before. Six years ago she flooded very much after a confinement, and on recovering consciousness her mouth was drawn, but she ultimately got quite well. About three months before admission she fell down suddenly in a state of insensibility, and her face and mouth have ever since been drawn to the left side, and she has been quite deaf of the right ear. At the same time she thinks she "caught cold" in her right eye, and this has been inflamed ever since.

On admission there was marked facial palsy of the right side, anæsthesia of the face of the same side, palsy of the muscles of mastication, and deafness of the right ear. The right cornea had a dull sodden aspect, and the epithelium was detached from the centre. The ocular conjunctiva was highly vascular and swollen, and moistened with a thin sero-purulent discharge. The lower eyelid was loose, and allowed the tears to flow over the cheek. The cornea and eyelids were quite insensitive. She complains of pain and tenderness of the right temporo-maxillary articulation and along the side of the

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nose. Bloody crusts are observed inside the right nostril, and there is often bleeding from it. There was no photophobia throughout the case.

The treatment from the first was of a tonic and supporting kind, the health of the woman being much lowered by want of nourishment and other depressing causes. The eyelids have been kept as accurately closed as possible by means of sticking-plaster, in order to prevent the irritation of cold air and foreign particles settling upon the cornea.

In about a month or six weeks the ulcer of the cornea quite healed, and the cicatrix ultimately became nebulous and the surface flattened. The vision remaining is a fair perception of large moving objects, and she can count fingers held up between her eye and a strong light.

The paralytic symptoms remain unaffected, and the partial eversion or falling away of the lower eyelid has led to an accumulation of mucus in the pouch thus formed, which causes an overflow on to the cheek. To remedy this the lower punctum lacrymale and canaliculus were laid open on October 3; and as this only partially remedied the defect, on January 16 the inner lip of the canaliculus was cut away, so as to leave a wide gaping channel towards the eyeball. The overflow of tears and mucus is now much less, and the eyelid is applied more closely to the eyeball.

During the early part of the case, while the cornea was in a semi-sloughy condition, the patient had an abscess of a scrofulous kind in the left arm. This has since quite healed under the tonic plan of treatment.

Remarks.—I have used the term neuro-paralytic simply as a matter of convenience. It expresses a complex pathological condition, and has been used to designate this condition by writers of established reputation. It implies, as used in connexion with keratitis—(1) a loss of sensation in the cornea, and (2) a loss of the protective reflex irritability of the eyelids, and (3) a disturbance in the nutrition of the cornea. If the well-known experiments of Snellen are to be taken as conclusive, it must also imply either an injury or an irritation of the cornea from without as the exciting cause of the keratitis. I am inclined to regard this as an essential factor in the chain of causative influences; for though cases of neuro-paralytic keratitis are recorded (see Wecker, tome i., p. 314), in which ptosis was present, it is probable that, even in these, accidental irritation may have been set up either by foreign bodies in the eye, or bandages outside it. That a bandage applied over an insensitive cornea may induce inflammation I have no doubt (a case having occurred to me, showing how the bandage lay in actual contact with the eyeball). With ptosis this would be less probable, but not by any means impossible.

Diagnosis.—The lesion in this case was clearly intracranial. Looking at the history and the general aspect of the patient, I believe that some abscess or scrofulous tumour has formed in the base of the skull, and has involved the fifth and seventh pair of the right side between their origins and their points of emergence from the cavity. The fact that the muscles of mastication are so completely paralysed, shows that the seat of the lesion of the fifth is clearly behind the position of the Gasserian ganglion; and the fact that both portions of the seventh are involved, place it behind or at the side of the pons Varolii—a site corresponding to the petrous portion of the temporal bone.

The suddenness with which the palsy came on makes it a matter of question whether some hæmorrhage may not have taken place at the time; but the coexistence of the abscess of the arm seems rather to favour the probability of a scrofulous deposit being the chief cause of the mischief. A sudden giving way of the walls of an abscess would be very likely to cause pressure or laceration of the surrounding or involved nerves.

The case is strongly confirmatory of the conclusions drawn from Snellen's experiments as to the influence of the fifth pair on the cornea, and it is difficult to accept the conclusions of Schiff and Meissner on the same point, if we view them in the light of the case before us. Messrs. Schiff and Meissner believe that the nutrition of the cornea is controlled by certain fibres of the ophthalmic division of the fifth pair which lie inside the other fibres, and when these inner fibres are not divided the cornea does not suffer, even though all the rest of the nerve may be separated from its connexion with the brain. But in this case the cornea did suffer, and therefore we must conclude, according to Schiff and Meissner, that these inner nutritional fibres were severed. Though the cornea ulcerated, however, it ultimately recovered and cicatrised, and yet there is no evidence whatever that the nerve was restored. On the contrary, the motor and sensory paralyses remained as before; and it is almost impossible to conceive that the nutritional fibres alone could have been reunited without a restoration *pari passu* of the motor and sensory filaments. But if destruction of the nutritional function depends upon the continuity of certain fibres, surely the reparative action of the same part cannot go on without restoration of the same fibres. Hence it is impossible to reconcile Schiff and Meissner's theory with the circumstances of the case above related, except on the supposition that the nutritional fibres of the nerve *alone* recovered their functional activity, while the rest of the nerve remained in its paralysed condition—a supposition which is too improbable to be allowed to stand. On the view adopted by Snellen, this case and several others that have come under my notice are easily and satisfactorily explained.

GANGRENE OF THE LUNG IN CHILDREN.

By THOMAS C. HAYES, B.A., M.B., M.R.C.P.,

Assistant Physician-Accoucheur and Assistant-Physician for Diseases of Women and Children to King's College Hospital; Physician-Accoucheur for Out-patients to General Lying-in Hospital; late Physician to the Royal Infirmary for Children and Women.

GANGRENE of the lungs is rare at all periods of life, but the infrequency of the disease is particularly noticeable amongst children—at least, we are inevitably led to this latter conclusion if we form an opinion on the subject merely from the number of recorded cases.

English authors of special treatises on diseases of the lungs (with the exception of Dr. Walshe), and English writers of general text-books on medicine, so far as I can discover, do not refer to, much less record in detail, a single instance of the disease occurring in a child having fallen under their own observation. They allude to and describe, however, many such cases in adults. Dr. Walshe,(a) in replying to the question whether obstruction of minute branches of the pulmonary artery by the products of endocarditis will cause patches of gangrene in the lung, writes:—"All I know on the matter is this: in a child cut off by endocarditis affecting both sides of the heart, and combined with central pneumonia of the left lung, there were three or four pea-like spots in the inflamed tissue distinctly gangrenous. The condition generally of the child was not favourable to gangrene, and it seems possible that plastic products, or minute fibrinous concretions from the endocardium, might have plugged the capillary vessels." Now, I think we may take Dr. Walshe's explanation of this case of pulmonary gangrene out of the region of mere possibility, and regard the cause of the gangrene to be, beyond a doubt, occlusion of the small vessels by the inflammatory products from the endocardium.

Dr. Stokes, in a paper on "Gangrene of the Lung" (*Dub. Anat. Jour.*, 1850), which should be read by everyone interested in the subject, says distinctly he has not met with an example of the disease amongst children.

If we turn to our special treatises on the diseases of children, we are hardly more fortunate in our search. Dr. West(b) has alone placed on record a case, and I have his authority for saying that up to the present time he has not seen another. In Dr. West's patient (a little girl of three years, about whom there was some evidence of past ill-health) the gangrene of the lung was associated with pneumonia, and complicated with, though not preceded by, cancrum oris. Dr. West leans to the opinion that the cause of the disease is some alteration in the blood.

I have not been able to find a single case in any of our medical journals or in the *Transactions of the Pathological Society*, whereas they furnish a good many examples of the disease amongst adults. The French and German physicians must be consulted if we wish to know how the disease shows itself in the child.

M. Berton(c) gives *in extenso* the clinical histories and post-mortem appearances of two cases, one of which had come under his own observation, and the other had already been published in the *Gazette Médicale* (August, 1839) by M. Constat. Berton regards both these as examples of pneumonia terminating in

(a) "Diseases of Lungs," third edition, p. 396.
(b) "Diseases of Children," fifth edition, p. 360.
(c) "Trait. des Malad. des Enfants," p. 375.

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gangrene. In M. Constat's case there were, besides pneumonia, unmistakable symptoms of septic poisoning. M. Berton mentions that in his chapter on pleurisy there will be found another case of gangrenous excavation of the lung; but on referring to it I see no evidences of gangrene. He also alludes to a case of M. Taupin's, apparently after typhoid fever.

M. Boudet(d) was almost the first to give a description of gangrene of the lungs in children. In his memoir he very fully relates the histories and autopsies of five cases, which, curiously enough, had all come under his care in the short period of five months. He thinks that an increased alkalinity of the blood is the predisposing cause of the disease; and he insists strongly upon the great value of the exhibition of acids, in conjunction with tonics, in its treatment. He also endeavours to determine the frequency of the disease, as compared with its frequency in adults and aged persons, by considering the number of post-mortems he had made during the past six years on subjects belonging to each of these groups, and noting how often he had met with gangrene of the lung. Thus he found in 135 autopsies of children five examples of the disease, or 1 in 27; in 156 autopsies of adults there were two examples, or 1 in 78; and in 220 autopsies of aged persons there were two examples, or 1 in 110. From these figures he infers that the disease is sensibly more frequent in children than in adults, and more common in adults than in aged persons. Drs. Walshe, Fuller, Aitken, and M. Grisolle all accept this fallacious result. Can anything more convincingly prove the former omnipotence of the statistical method and the traditional persistency of an error?

Rilliet and Barthez(e) have composed a most valuable monograph, which is based on eleven cases of their own and five others taken from the journals.

Barrier(f) devotes a chapter in his book to the disease; but it is merely a condensation of Rilliet and Barthez's monograph. He has only seen one case, and that was associated with pneumonia.

Bouchut mentions one case of pneumonia after tracheotomy for croup, terminating in gangrene.

In the *Bulletins de la Société Anatomique* of Paris, from 1826 to 1871, there are recorded nine cases of the disease.

Dr. Steffen(g) has given a very excellent and full account of the malady. He recapitulates briefly seven cases recorded by other German physicians, and records in detail three cases of his own.

American writers on children's diseases—Meigs and Pepper, Condie, Smith—do not mention the disease, unless incidentally in their accounts of cancrum oris.

The question now at once arises, Is it true that pulmonary gangrene is so very rare amongst children in England and America as this sketch would induce one to believe? I cannot think so; indeed, I am persuaded that many cases pass unnoticed, and therefore unrecorded, because many practitioners are quite unaware that this terrible disease may find its victims amongst the young. In the following two cases of the disease, which have recently fallen under my own notice, the second had baffled diagnosis, and would probably have remained quite unexplained, had it not been for the light thrown upon my mind by the post-mortem on the first.

Case 1.—*Boy, aged seven years—Good Constitution—Favourable Hygienic Conditions—Previously Excellent Health—Cough with Intermitting Fetor of Breath and Loss of Strength for four weeks—Symptoms and Signs of Pneumonia—Gangrenous Expectoration—Hæmoptysis—Death—Diffused Gangrene of Right Lung-Cavity—Grey Hepatisation—Left Lung Œdematous.*

W. G. was admitted under my care into the Royal Infirmary for Children and Women, October 6, 1873. His mother gives the following history:—The boy has always been pretty well fed and clothed, and has had a comfortable home. When an infant he had measles and hooping-cough, but otherwise, till this illness, he had enjoyed excellent health, and seemed very strong. He was brought to the hospital five weeks ago, in consequence of having passed an *Ascaris lumbricoides*, and then his condition attracted no serious attention. A week afterwards, his health began to fail in an indefinite and insidious way. He drooped, would cough, and sit by the fire all day, complaining of pains in his chest, and showing great disinclination to leave the house. Some days, however, he would brighten up, go out and play, and seem as if going to get well. Such amendment was illusory—he has slowly and steadily lost strength, flesh, and colour. Quite a fortnight ago his mother first noticed, during or shortly after a fit of coughing, a most unpleasant odour from his breath. This fetor used to come and go, and more than once the room was so full of it that she was obliged to open the window. His appetite has been very indifferent, and he has cared more for drink than anything else. There have been no night-sweats, and the bowels have been regular. Lately the cough, which was dry and short, has become moist and paroxysmal; it is very troublesome, and interferes greatly with his sleep. Yesterday (October 2) the boy looked much worse—he shivered, felt sick, and became very hot and feverish.

October 3.—His present condition is as follows:—Face and lips pale; eyes sunken and lustreless; countenance distressed and pinched. There are no signs of struma. Over the base of the right lung behind there are loss of resonance and distant bronchial breathing, with crepitant râles. Over both lungs mucous râles are audible, but more especially over the right. The heart-sounds are healthy. The tongue has a dirty fur; no fetor from the breath (the boy was not made to cough). Pulse 130; respirations 36; temperature 103°. To be admitted.

The patient was not admitted till October 6.

6th.—Aspect much the same, though perhaps more depressed. Movement in the bed causes painful fits of coughing, and then an unbearable stench comes from the breath. When quiet and free from cough the fetor is not perceptible. The expectoration is very copious, frothy, semi-liquid, and of a dirty reddish-brown colour; on standing, it deposits a dirty, reddish-brown, shreddy sediment; its fetor is intensely disagreeable. The lung signs are scarcely altered. The dulness from the base of the right lung to the angle of the scapula is more marked, and over the remainder of the lung the percussion-note is higher than over the left lung, and the respiratory murmur is feeble. Tongue still furred. No signs of typhoid fever. The mouth and throat are healthy. Pulse 132; respirations 44; temperature 104°. Treatment: Large doses of ammonia and bark, with six ounces of wine; poultice to chest.

9th.—Appears much better. Countenance brighter; cough less frequent; expectoration very abundant—twelve to fourteen ounces in twenty-four hours, of the same appearance, but not so fetid. Tongue moist and clean at the edges. Dulness at the right base not so marked. There is no diarrhœa. The liver reaches to within a quarter of an inch of the umbilicus. Pulse 120; respirations 34; temperature 100·2°.

12th.—Much worse; very depressed; cough most harassing and interfering with sleep; breath and expectoration extremely fetid, the latter very copious and liquid; lung signs unchanged; tongue furred; bowels regular. During the past three days, the morning and evening temperatures have not differed much more than a degree. Pulse 146; respirations 56; temperature 103·6°.

15th.—Still weaker; complexion very pale and leaden; other symptomsun altered. Pulse 146; respirations 40; temperature 102°. The pulse is small and compressible. Creasote inhalations were ordered, but not tried.

17th.—At the morning visit he seemed more prostrate; cough most tiring; a large quantity of the fluid reddish-brown expectoration. Pulse 174, very weak; respirations 52; temperature 101·6°. This afternoon, after a fit of coughing, he spat up about half a pint of red frothy blood; it smelt abominably. In the evening there was a repetition of the hæmoptysis; the blood was darker, but its smell quite as fetid. He died shortly afterwards.

Autopsy (eighteen hours after death).—Body very emaciated. No signs of gangrene in mouth or throat. Right lung adherent everywhere to the chest and diaphragm. Pleura thickened and covered with firm layers of recent lymph, except at the apex. The lower half of the lower lobe of the right lung in a state of grey hepatisation, the tissue being very friable; on squeezing, drops of pus exude. The rest of the lung has a dark purplish colour; its tissue breaks down on the least pressure, and exhales an unbearable stench; in a word, it is completely gangrenous. In the centre of the middle lobe there is an irregular cavity, about the size of a large walnut, filled with putrilage. The left lung is slightly adherent to the chest-wall, somewhat œdematous, but otherwise healthy. The heart is healthy; the blood in its cavities presents no peculiar features. The liver

(d) "Arch. de Méd.," Aug. and Sept., 1843.
(e) "Trait. des Malad. des Enfants," vol. ii., p. 404, second edition.
(f) "Trait. des Malad. des Enfants," third edition, 1861, vol. i, p. 328.
(g) "Klinik der Kinderkrank," vol. ii., p. 47.

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is considerably enlarged, but its tissue seems quite normal. The spleen is softer than it usually is. The other organs healthy. Brain not examined.

(To be continued.)

REPORTS OF HOSPITAL PRACTICE IN MEDICINE AND SURGERY.

KING'S COLLEGE HOSPITAL.

ANEURISM OF THE FEMORAL ARTERY IN HUNTER'S CANAL—THE SAC LAID OPEN—BOTH ENDS TIED—RECOVERY.

(Under the care of Professor JOHN WOOD, F.R.S.)

For the notes of this case we are indebted to Mr. William Rose, Surgical Registrar.

C. W., aged 31, a railway labourer, was admitted on November 7, 1873. He was slightly built, but healthy-looking. Nine months ago he first noticed a small lump in his right thigh on the inner side just below the middle. He says it was about the size of a walnut, and that it did not pulsate. This swelling, though causing him no annoyance, seemed to be slowly increasing in size up to three weeks before admission, when, whilst at work, he fell astride a plank. After this the tumour became larger, very painful, and throbbed perceptibly. He continued work for a week, after which, on account of the pain, he was obliged to desist. Has always been temperate. No history of syphilis. There is a large visibly pulsating tumour on the inner side of the right thigh at the junction of the middle with the lower third, having all the ordinary characteristics of an aneurism. When the femoral artery is compressed above, slight pressure over the tumour greatly diminishes its size. No œdema of leg below. Pulse at the ankle of equal strength in both legs. Measurement of right thigh round the most prominent part of the tumour, nineteen inches; of left at a corresponding point, thirteen inches and a half.

November 8.—Artery compressed below Poupart's ligament by means of Carte's tourniquet.

14th.—Since the last note, instrumental pressure has been kept up with slight intermissions, but there is no diminution in the size or pulsation of the tumour, which seems to extend higher up the thigh.

19th.—Measurement of thigh, at same point as before, larger by one inch.

During the last twenty-four hours the swelling and pulsation have extended much further up the thigh; there is slight œdema of the leg, and on the big toe of the right foot is a small purple spot. Under these circumstances it was determined to operate. Taking into consideration the rapid increase in the size of the aneurism, the threatened arrest of circulation in the limb below by the pressure of the tumour on the veins and collateral branches, the partial traumatic history, and the probability that the sac was on the point of rupture, Mr. Wood decided not to do the Hunterian operation, but to cut down on the aneurism, turn out the clots, and tie the vessel above and below. The patient was therefore brought into the theatre, and placed under the influence of chloroform. Mr. Henry Smith took charge of the artery above, while pressure was maintained in the popliteal space by Mr. Royes Bell. A longitudinal incision for a distance of six inches was made over the tumour, exposing the sartorius muscle expanded over the sac, which was at once seen on separating the muscular fibres. The sac-wall was very thin, and the slightest touch of the knife laid it open. Some dark clots having been removed, a sudden gush of arterial blood followed. Mr. Wood instantly placed his fingers in the wound, and after some difficulty succeeded in passing a ligature round the artery just above the sac. The lower end of the vessel was then found, and tied close to the adductor opening. On relaxing pressure on the artery above, a large vessel was seen running into the upper part of the sac, suggesting the possible existence of a double femoral, and was secured by another ligature. A fourth thread was placed around the sac about its middle, where another vessel entered; and, lastly, the sheath of the artery was opened a little above the first ligature, and a fifth passed round the vessel. Great care was taken to avoid the vein, which was never clearly seen. Interrupted sutures closed the wound, and carbolised pads of lint were carefully adjusted. The whole limb was then enveloped in cotton-wool and a flannel bandage.

20th.—Has slept two hours, but is restless, and complains of thirst. Tongue moist; pulse compressible, 132. To take ℥ss. of brandy every three hours, with milk and beef-tea. Toes of right foot warm; no pain. Temperature in axilla, 101·5°.

22nd.—Wound dressed for first time. Thin sanious discharge. Dressings reapplied as before, with cotton-wool and bandage.

After this the patient made most satisfactory progress; the discharge from the wound was healthy, the pulse and temperature fell, and his general health was good.

The ligature immediately above the sac came away on the ninth day.

On the thirteenth day the ligature placed round the vessel of supply, and that securing the artery below the sac, separated together.

On December 4—the fifteenth day from the operation—the ligature round the sac came away. He now suffered from a severe attack of diarrhœa, the pulse and temperature rose, and he complained of pain in the thigh, which was swollen, and on examination with a probe a considerable burrowing of matter was discovered up the inner side. A counter-opening was made close below the origin of the adductor longus, a large quantity of pus was let out, and a drainage-tube inserted.

December 7.—Doing well. Discharge from upper opening continues through tube. The last ligature, which was placed high above the sac, came away to-day—the eighteenth from the operation.

Everything went well after this. A small abscess formed in a gland which was pressed upon by the tourniquet just below Poupart; this was opened, and soon healed. The wound in the thigh slowly closed by granulation, the drainage-tube was removed on January 7, and the patient left the Hospital for a convalescent home on January 27, a firm, healthy cicatrix existing over the site of the tumour, no trace of which could be felt.

A fortnight before his discharge, pulsation had returned in both tibials.

ST. PETER'S HOSPITAL.

STONE IN THE BLADDER—LITHOTOMY—RECOVERY.

(Under the care of Mr. TEEVAN.)

C. J., AGED 8, was admitted into the Hospital on May 12, 1873.

Past History.—Four years ago the patient commenced to experience pain when urinating, which was severe enough to cause him to rub his genitals for relief, and to prevent him from remaining still during the act. His symptoms increased in intensity, but he passed no blood till a fortnight before his admission. Locomotion aggravated his sufferings, whilst rest in bed assuaged them. No history of stone or gout in the family. The boy and his father were born at Poplar, but the mother was ignorant of the locality of her nativity.

Present Condition.—The child is pale, but well nourished. Suffers great pain when urinating, which is attended with priapism, prolapsus ani, and the escape of blood. Mr. Teevan sounded the lad, and found a small stone.

On May 19, at 3 p.m., the patient was put under the influence of chloroform by Mr. Dawes, the house-surgeon, and a rectangular staff having been passed into the bladder by Mr. Teevan, it was by him given to Mr. Walter Coulson to hold. As all the urine escaped during the introduction of the staff, the bladder contracted firmly on the forceps, and caused some little difficulty in extracting the calculus, which was of lithic acid, and weighed 140 grains. The bleeding ceased almost immediately after the operation. At 10 p.m. the same day the child's pulse had risen to 130, but his tongue was moist and clean, and he was quite free from pain.

May 20.—10 a.m.: Mr. Rowell found the temperature had risen to 103·7°, the pulse being the same as last night. Twelve hours later the temperature had fallen to 100·4°, but the pulse had risen to 140.

21st.—Pulse 124; temperature 99·2°.

24th.—The patient has not experienced the slightest pain since the operation, and has slept and eaten well. Urine

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began to pass through the urethra to-day. Pulse 110; temperature 99·1°.

26th.—All the urine comes through the penis.

June 14.—Wound quite healed.

16th.—Patient discharged quite well, and not suffering from incontinence of urine.

STONE IN THE BLADDER—LITHOTOMY—RAPID RECOVERY.

(Under the care of Mr. TEEVAN.)

W. C., aged 4, was admitted into the Hospital on September 19, 1873, having been brought to the Hospital a week previously by his mother, who gave the following account:—

Past History.—For two years past the boy has suffered pain when urinating, the mother's attention having been drawn to the fact by his whining and rubbing himself during the act. Ten days ago the child was seized with complete retention, and was taken to a certain hospital, where his urine was drawn off, but the house-surgeon apparently did not sound the patient, and, as he still continued to suffer as before, the mother brought him to St. Peter's Hospital, where he was at once examined by Mr. Teevan, who detected a calculus. No history of stone or gout in the family. Father and son born in London; mother is a native of Oxford.

Present Condition.—The boy is very pale and thin, and of exceedingly retiring disposition, so that it is extremely difficult to get him to answer a question. As long as he is quiet he does not seem to suffer any pain; his urine is clear and free from albumen.

On September 29, at 3 p.m., the patient was put under the influence of ether by Mr. Dawes, and Mr. Teevan extracted by the lateral operation a lithic acid calculus weighing sixteen grains. There was but little bleeding during the operation, and none afterwards. The same evening the boy passed all his water by the wound into the *pôt-de-chambre*, which he called for.

On October 2, at 9 a.m., the pulse had risen to 144 and the temperature to 103°. The exacerbation was, however, merely temporary, for at 9 p.m. the same evening the pulse had fallen to 112 and the temperature to 100·2°.

4th.—The boy passed urine voluntarily through the penis. Pulse 104; temperature 100°. From this day the child made rapid progress, and left the Hospital on October 14 with the wound healed.

Mr. Teevan remarked that he had now cut fifteen boys for stone, all of whom had recovered; and as he always cut completely through the prostate and its capsule, the above happy results showed the harmlessness of the method he adopted. Most English surgeons believed that if the deep incision exceeded the capsule of the prostate the patient would get infiltration of urine; but such belief was erroneous, as infiltration of urine after lithotomy was a physical impossibility. Two bodies could not occupy the same space at the same time; and as the blood, which was the heavier fluid, had already occupied the meshes of the divided tissues, it could not be displaced by the urine, which was the lighter fluid. So long as urine could pass out freely, it could do no harm; it was only when it was pent up and unable to escape that it destroyed tissues by its pressure.

Chloroform was used in the first case, but ether in the second; and Mr. Teevan said he had to thank Professor Morgan, of Dublin, for converting him to the superiority of the latter as an anæsthetic. He had had opportunities for comparing the relative merits of the two anæsthetics in lithotomy, and he considered the superior merits of ether were so manifest that he thought no unprejudiced person could gainsay them.

The second case presented two special features. Firstly, the boy had been taken to a hospital for his retention, but, although this was relieved, the cause was not detected, as it was not searched for. It might be laid down as a rule that retention of urine in boys was always caused by stone, for the stoppage produced by phymosis was rarely complete, and was always self-evident. Secondly, the boy had held his urine from the first, and had thus enjoyed the comfort of having a dry bed under him. This desirable event was very rare, and had only occurred once in his practice.

DR. MACKENZIE has been appointed Medical Officer of Health for Normanton.

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Medical Times and Gazette.

SATURDAY, FEBRUARY 14, 1874.

THE NEW PARLIAMENT.

GENERAL politics have, of course, no place in these pages; and in looking at the great Parliamentary transformation effected by Mr. Gladstone, we have, so far as may be possible to a man and an editor, to divest ourselves from all political bias, and to regard the changes made and to come purely from a medical standpoint—*the* question with us being, are they likely to favour sanitary reform, and medical reform? We suppose it may be taken for granted that there will be a new Government as well as a new Parliament: will they be more likely than the last Parliament and the expiring Government to legislate thoughtfully, carefully, and wisely for the public health and for medical education? and is there any good reason for hoping that the existing Public Health Act will be administered with more wisdom and liberality?

We are happy to see that Sir Charles Adderley will be a member of the new House of Commons. Any new Ministry that may be formed will therefore have the great benefit of his large knowledge, and his assistance and criticism in the passing of any Health Acts. Of the former medical members but few will be in the new House. We have lost Dr. Brewer and Sir Dominic Corrigan, the latter having declined even attempting to re-enter Parliament; but two new medical members have been returned. Concerning Mr. O'Leary we have not the pleasure of knowing anything, save that he is returned as a Home Ruler, but we may trust that he will, at any rate, support any well-considered measure for promoting the well-being of the British people. Dr. Cameron is an M.D., and an LL.D. of the University of Dublin, and though he has not, so far as we are aware, ever practised as a physician, he is a highly educated man, and was a very distinguished student in both medicine and arts. He has won a high and powerful position in Glasgow as a journalist, being editor and, we understand, principal proprietor of the *North British Daily Mail*. He is a man in the full vigour of life, and, as he has given much attention to sanitary reform, we may fairly hope that he will be able to exercise a real and solid influence upon the promo-

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tion of sanitary measures in the Legislature. Further, as we have seen that he has been accused of Permissive Bill-ism, we would suggest that he may take up the late Dr. Dalrymple's Habitual Drunkards Bill. He cannot well undertake a more excellent and valuable work. Dr. Brady and Dr. Lush have been again returned to Parliament, so that there will be a little band of medical members to aid the Government; and it may be hoped that in health legislation they will be able to count on the assistance of Dr. Lyon Playfair and Mr. Mitchell Henry. As regards the Government, we cannot well have at the head of it anyone more indifferent to sanitary measures and medical legislation than Mr. Gladstone has shown himself; nor at the head of the Local Government Board anybody actuated by a more narrow-minded and false spirit of economy in every detail of administration—as regards the public health, at least—than Mr. Stansfeld; while we have some right to look for better things from a Ministry including Mr. Disraeli and Lord Derby. The latter has shown not a little knowledge of matters medical, and an intelligent appreciation of the importance of sanitary science; and it can hardly be supposed that the former will, when in power, entirely forget his *sanitas, omnia sanitas* declamation. And Mr. Gathorne Hardy, when formerly in office, proved that he had both the will and the knowledge to make wise and valuable changes in the medical care of our poor. The answer that has been made to Mr. Gladstone's appeal to the British pocket shows that the people do think of something beside £ s. d., and should encourage any Ministry to legislate for the care of the public health without too narrow and mean a regard to expenditure. We do not care to inquire what have been the real causes of the answer to Mr. Gladstone's appeal; whether it may be considered that the country has endorsed the famous Bath letter, or that totally different reasons may be given for the change, the result is the same. The Minister who was so powerful and popular a very short time back has been dethroned, and the country has refused to listen to the golden eloquence of the most able and brilliant financier of our day. The country is apparently tired of "great measures," and the Conservative party has a rare opportunity of quietly and carefully doing more for the general health and happiness of the people, of legislating more effectually for the prevention of misery, disease, and crime, than has been done or attempted by any recent Ministry.

INHUMATION, OR CREMATION?

Our readers need not to be informed that the question, "How can we most safely dispose of our dead?" is one of the most important questions as affecting the safety of the living that can engage the attention of civilised governments, and that in proportion as a country becomes more and more thickly populated, the more urgent and important does the question become. It is by no means a simple or easy one to solve. For while it is of primary importance to insure that the dead hurt not the living, due care must be taken not to lessen the reverence that should ever surround the dead body, and the utmost consideration must be given to the feelings of affection and sentiment of the surviving relatives and friends. Death, which—we speak of the body only—is but a passing from one into other forms and modes of existence, is the returning of the body into the elements of which it is composed; the yielding of it up to unimpeded chemical forces, by which its constituent parts are resolved into more simple combinations—into water, gases (chiefly carbonic acid gas and ammonia), and mineral salts. These, restored to the earth and the air, are taken up and assimilated by the vegetable world; and the vegetable world, in its turn again, affords nourishment to the animal. Thus we have an incessant round of death, decomposition, and growth—the endless chain of change that is nature's law; and man through death pays back to mother earth all that he took from her during the life of his body, and repairs her forces, as his were supported and repaired by her. In sepulture or inhumation this natural round of change is not prevented, but only more or less retarded. In some cases, as where the body is buried in a vault, and where it is enclosed in a metallic as well as a wooden coffin, the restoration to the earth of the elements composing it may be delayed for some or many generations; but in the great mass of cases the delay is not long, and cannot count for much, though it may be granted that incineration, by which the perfect destruction of the body is hastened instead of being delayed, would be more in consonance with the laws of nature than sepulture ever is.

Inhumation is, however, attended with some very serious inconveniences and dangers; and these constitute the real objections to it. Our graveyards and cemeteries becoming crowded with decomposing bodies act injuriously on the health of the living. The air may be infected by the masses of decaying animal matter, and certainly the water is contaminated, and contaminates springs, streams, and wells which may be used for drinking purposes. This has been so far recognised and acted on that graveyards in cities are no longer allowed to be used. It has also been proposed that no cemeteries should be perpetual, but that after a fixed time they should be closed, and ten years after the last funeral be given up again for agricultural purposes. This proposition, however, we think, may be put aside, as very unlikely to meet with any general acceptation. We do not believe that people would be at all willing to eat corn or any vegetable food grown in a disused cemetery. That graveyards in or near towns are serious sources of danger to those living in their neighbourhood may, then, be taken to be an admitted fact, and we might be content to argue that where there is an increasing population, the time must come, sooner or later, when all country graveyards and cemeteries must also become, in a like manner, sources of infection; but we will quote, from Dr. Prospero de Piétra Santa's pamphlet "On Cremation," an instance of this having actually occurred.

The cemeteries of the villages of Rotondella and Bollita were situated on the summit of a wooded hill, beyond the limits prescribed by the law, and were placed, apparently, under the most favourable hygienic conditions. But, unhappily, the springs daily used by the inhabitants emerged from the base of the hill, and as these springs were fed by the rainfall on the surface of the cemeteries, and this in filtering through the earth became impregnated with organic matter, "a day arrived when the drinking-water thus contaminated produced a frightful epidemic." This and other circumstances have led to a remarkable movement by doctors in Italy in favour of cremation, instead of sepulture or inhumation, as the only rightful mode of disposing of the dead; and several articles, with the same view, have appeared in our own journals—notably one by Sir Henry Thompson in the *Contemporary Review*.

In Italy, Drs. Pini, Polli, Gorini, and Brunetti have given a great amount of attention to working out the practical possibility of the perfect incineration of the body, and they and several others have written pamphlets and papers in favour of cremation as a substitute for inhumation. The question of "cremation of the dead" was brought before the Medical Congresses of Florence and Rome in 1869 and 1871; and on each occasion a unanimous resolution was passed "to endeavour by every possible means to obtain legally, in the interest of the laws of hygiene, that the incineration of dead bodies should be substituted for the existing system of inhumation." The Royal Institute of Science and Letters of Lombardy has also taken up the question, and has made it the subject for the Secco-Comneno Prize (quinquennial, 1877), in these terms:—"Indicate a method of

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cremation of dead bodies, which can be substituted for the present mode of inhumation, in order to prepare the way for this hygienic reform. The object is, to show by means of good arguments, supported by experiments upon animals, that the method is exempt from inconveniences; that it is expeditious, economical, and of a character to respect civil usages and customs and social proprieties." Dr. Pini has published an account of the cremation of the body of an Indian prince on the banks of the Arno, at which the learned doctor himself assisted. It was perfectly successful, but was tedious (lasting ten hours) and expensive. Professor Polli has made, at the Milan gasworks, various experiments, proving that the bodies of animals can be perfectly consumed in a comparatively short time—as, for instance, he succeeded in producing the incineration of a dog weighing forty-two pounds and three-quarters in two hours. And Professor Brunetti has made experiments on five human bodies. The last was on the body of a man who at the age of 50 died of chronic bronchitis; it weighed a little more than 114 lbs., and was reduced in about two hours to about four pounds. His apparatus was shown at the Vienna Exhibition. But Professor Gorini, of Lodi, who has published an important work entitled "I Vulcani Sperimentali," has been most successful. He proved in his laboratory, in the presence of a brilliant reunion of men of the world and *savants*, that it is possible to destroy the body very rapidly by a process peculiar to himself. Dr. Prospero de Piétra Santa tells us that a substance, the composition of which is at present a secret, was melted in a crucible at a very high temperature, and on the liquid attaining the degree of ebullition required for the destruction of all the tissues, portions of the human body (foot, leg, thigh, hand, head) were cast into it. "The moment the limb touched the incandescent liquid it was enveloped in intense flame, and in the space of twenty minutes was completely destroyed." The volatile parts passed upwards in the form of gas, and the fixed principles remained, calcined and incinerated, on a metal grating at the bottom of the crucible; and, it is added, "the work of destruction was accomplished rapidly and in silence, without crackling of any sort, without unpleasant smell."

It must be allowed, then, that it has been proved that the cremation of the human body can be accomplished with rapidity and perfect success; though at present the Gorini method is too expensive for general adoption, as the combustion of a single body costs nearly three pounds. Dr. de Piétra Santa observes, however, that this is because it is necessary to use a large amount of fuel to fuse the substance employed; "but this high temperature once attained, the incandescent material can serve for the destruction of many bodies. The expense will diminish in proportion to the number of the dead bodies; so that, if a dozen are burnt at the same time, the cost of each would be reduced to five or six shillings." We suppose in that case the ashes would be mixed together, which some weak brethren might possibly think objectionable. But we may feel assured that, sufficient motives being given, our men of science would soon discover some still more perfect and wholly unobjectionable method of cremation.

(*To be continued.*)

THE EXPEDITION AGAINST COOMASSIE.

Although the tidings which have reached this country from the seat of the war during the past week are too indefinite for sound comment, one most important fact seems to be universally admitted, and that is the continued healthiness of the whole of the force engaged upon the expedition to Coomassie. It would appear that Sir Garnet Wolseley, probably calculating on the bad effect which a prolonged halt at the Prah would have on the enemy, had resolved to push on for King Koffee's capital with just as many white troops as he could find transport for. Small in numbers as this contingent is reported to be, their appearance across the sacred river has brought about the complete humiliation of the Ashantee power—that is to say, always supposing that the telegrams which have reached us are correct, and that no treachery is meditated towards the small band of white men, who are known to be faced by large numbers of King Koffee's soldiers, led by the monarch in person.

Some sort of uneasiness has been engendered by the looseness of the telegraphic messages received; it being perfectly evident that Sir Garnet Wolseley, occupying a position on the Adansi Hills, could not by any possibility be "one day's march from Coomassie," as the dispatches in question stated him to be. Nevertheless, the universal faith which is felt in the Commander-in-Chief of the small force has tended to dispel all feelings of apprehension, and we fully expect that the next mail steamer—bringing intelligence down to the 25th of last month—will confirm the reports of absolute submission to our authority on the part of King Koffee and his subjects.

Not by any means less reassuring is the report that the invalided men are, without exception, progressing satisfactorily. The Cape mail steamer of the 29th ult., touching at St. Vincent, brought home direct to Southampton six invalids transferred to her from the hospital-ship *Simoom*; the *Dromedary* had also arrived at St. Vincent from Cape Coast Castle with invalids. Strict orders have been issued to medical officers at Cape Coast Castle superintending the shipment of invalids to this country, to issue plentiful supplies of warm clothing to each man before transference to the mail steamers or homeward bound transports, in order that all may be amply prepared to meet the reduced temperature which they will find on their arrival in this country. Large stores of warm clothing of all kinds were sent out on board the *Victor Emmanuel* for this purpose.

Should the negotiations between Sir Garnet Wolseley and the Ashantee potentate terminate in a satisfactory manner, there will be no difficulty in withdrawing the whole of the European troops by the middle of next month, in time to escape the recurrence of the unhealthy season. But it is much to be hoped that Sir Garnet will listen to no terms until he has reached the capital of Coomassie itself, and that he will dictate conditions of such a nature that the Ashantees will think twice before they again venture to defy our power.

CONFLICT OF MEDICAL TESTIMONY.

Nothing is more injurious to the profession than the unseemly conflicts witnessed in the testimony given by medical witnesses in cases of railway and other accidents. Judges and jurors are frequently bewildered by this contention of evidence. It is high time that some other system than that at present in force should be adopted to determine the nature and extent of injuries to which plaintiffs in the cases in question have suffered or suffer from. How is a jury to determine this question when one batch of medical gentlemen get into the witness-box and swear positively that a person has been injured to a serious extent, whilst another batch, equally "eminent," swear diametrically opposite? The case subjoined is a strong illustration of this serious evil. We shall be glad to know upon what grounds the surgeons for the defence founded their opinion that the hip had not been dislocated and reduced. To say that such a reduction was a surgical impossibility is at least a rash statement. As we have often urged in these columns, it is desirable in the interests of justice and the honour of the profession that perfectly disinterested medical assessors should be appointed to determine the nature and extent of the injuries sustained in cases similar to the present. The action to which we refer was tried before Sir Fitzroy

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Kelly on Saturday last against the London Tramways Company. It was an action brought to recover compensation for serious personal injuries to a Mr. Spence in consequence of the alleged negligence of the defendants' servants. The plaintiff's case was that the car, which had stopped for a moment, moved suddenly on after two gentlemen had got out, and the plaintiff was thrown violently into the road, and suffered a fracture of the thigh-bone and dislocation of the hip. He was picked up insensible, and was taken to the house of his brother, was placed upon a sofa, where he lay for about six weeks, attended by Messrs. Dodd and Pywell, surgeons, of the Westminster-road. He was subsequently removed to his own residence at Streatham, and was confined to his bed for six months longer, during which time he was attended by a physician as well as a surgeon of the neighbourhood. In the application for compensation, ten months after the accident, it was stated that the plaintiff was lamed for life. The medical and surgical evidence on his behalf supported this statement. On the part of the defendants it was urged that the accident had been caused by the plaintiff's own negligence. Medical evidence was produced to show that the plaintiff's thigh had not been fractured as stated, nor his hip dislocated, but that he had only sustained some severe bruises, and the lameness he complained of was due to his having laid up so long, instead of using his leg as much as possible. Mr. George Phillips, of Spital-square, and Mr. Gant, of Connaught-square, deposed that they had examined the plaintiff at the request of the defendants, and they were decidedly of opinion that the plaintiff had not sustained a fracture of the thigh or a dislocation of the hip-joint. Dr. Stuart had stated that the plaintiff had dislocated his left hip-joint, and that six weeks afterwards he had reduced the dislocation without any assistance. This the witnesses alleged was a surgical impossibility. The judge, in summing up the evidence, said, *inter alia*, that the medical evidence as to the extent of the plaintiff's injuries was very conflicting, but if the jury considered that the plaintiff was to blame, they need not trouble themselves at all about the medical evidence; but if they thought the defendants were liable, then they would consider that part of the evidence with a view of determining the amount of compensation they would award to the plaintiff. After some consultation, the jury gave a verdict for the defendants, on the ground that the accident occurred from the plaintiff's own negligence. Fortunately the medical evidence in this case had no effect either way on the finding of the jury.

THE WEEK.

TOPICS OF THE DAY.

MANY of our readers will, we are sure, be glad to be told that Hugh, the youngest son of the late Dr. F. C. Webb, is a candidate for one of the Foundation Scholarships of the Royal Medical Benevolent College. It is of great importance to the boy to succeed this next May, and we hope that for his father's sake the profession will resolve to carry him in. We, as well as Mr. T. Stone, at the Royal College of Surgeons, will gladly receive voting papers.

It will be remembered that some months since the Military College at Sandhurst was somewhat precipitately closed, in consequence of the appearance of a case of enteric fever. Dr. Maclean, the medical officer of the College, having drawn attention to the defective drainage, a board from the War Office was appointed to inspect and report as to the sanitary condition of the establishment generally. The result of this inquiry has led to a complete system of drainage, and, the work being completed, the cadets returned to their studies on the 2nd instant.

We regret to state that Dr. Letheby, probably from overwork, finds it necessary from the state of his health to resign his appointment as Medical Officer of Health to the City of London. During the time that he has held this appointment he has fulfilled its duties with exemplary diligence and ability. The Commissioners of Sewers have appointed *pro tem* Mr. Liddle and Dr. Tidy to perform the duties during the pleasure of the Court. This is, no doubt, with the hope that Dr. Letheby will be able ere long to renew his services.

A very interesting scrap-book has been presented by her Royal Highness the Princess Beatrice, through Sir William Jenner, Bart., for the use of the children's wards of University College Hospital.

The Government of India highly approve of the measures adopted by the health officer, Dr. Weir, for the suppression of the rinderpest in Bombay, which has not yet ceased; but it is not increasing to any extent.

The New York correspondent of our contemporary the *Morning Post*, writing on the 28th ult., states that a daring attempt was made on the previous day to assassinate Dr. Francis Delafield, a well-known physician in that city. A medical student named Dawson entered the reception-room of the doctor, and, drawing a revolver from his pocket, shot twice at him, one ball grazing the doctor's head, and the other passing through the sleeve of his coat. A police-officer passing by, hearing the shots, burst into the room, and seized the would-be murderer. A dispute about money was the cause of "the difficulty." The same correspondent announces that an autopsy of the body of Professor Agassiz has been made at Cambridge. The brain was found to weigh 53·4 ounces avoirdupois, equivalent to 1·495 grammes. The cause of death seems to have been the formation of a clot, the size of a peach-stone, in the left ventricle.

The Registrar-General, in his interesting, elaborate, and carefully prepared report for the quarter ending December last, for England and Wales, states that:—

"The public health was in a favourable state, and the mortality was below the average both in town and country. The extremely severe cold week of December was accompanied by a remarkable continuance of dense fog in London, which, fatal to many, deprived it of its usual superiority over the other great cities of the kingdom. The chief zymotic diseases have been comparatively quiescent, but the public health requires watchful care, for measles, scarlet fever, and diphtheria are on the increase, and may devastate unguarded cities. In the last three months of 1873 there were 128,283 deaths registered. The annual death-rate was equal to 21·8 per 1000, and 0·4 lower than the average rate in the corresponding quarters of the ten years 1863-72; in those ten years the only lower rates were 20·2 in the last quarter of 1872 and 21·3 in 1867, whereas in the other years the rate ranged upwards to 23·4 and 23·5 in 1871 and 1864 respectively. The 128,283 deaths in England and Wales including 30,400, or 23·7 per cent., of infants under one year of age, and 32,280, or 25·2 per cent., of persons aged sixty years and upwards. To each 100 births registered during the quarter 14·8 deaths of infants under one year of age were recorded, against 15·7 and 13·7 per cent. respectively in the corresponding quarters of 1871 and 1872. Infant mortality measured in this way was equal to 16·6 per cent. in the northern counties, containing principally a mining population, whereas it did not exceed 10·7 per cent. in the agricultural counties of the south-eastern division. In eighteen of the largest English towns, including London, this proportion of infant mortality to births registered averaged 16·7 per cent., and ranged from 11·8 in Norwich to 18·6 in Liverpool and Newcastle-upon-Tyne, 19·8 in Wolverhampton, and 23·0 in Bradford. The proportion of deaths of elderly persons in England and Wales was slightly lower than that which prevailed in the same period of last year, whereas it was considerably higher than in the last three months either of 1870 or 1871. The percentage to total deaths of those at sixty years of age and upwards averaged 20·7 in the eighteen towns, and ranged from 14·1 in Leeds to 37·2 per cent. in Norwich. In Leeds the fatality of zymotic diseases, especially of scarlet fever, caused an excessive proportion of deaths between one

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and sixty years, and the comparative immunity from zymotic diseases which prevailed in Norwich had the opposite result in that city."

By advertisements in the Liverpool papers we see that for the post of Surgeon to the Royal Infirmary, rendered vacant by the resignation of Mr. Stubbs, Mr. Reginald Harrison and Dr. Hayward are candidates. The latter, we believe, is a professed homœopathist.

We are authorised to state that Mr. Gant is not a candidate for the Assistant-Surgeoncy to the Westminster Hospital. Of course, a surgeon of Mr. Gant's standing and acknowledged professional position cannot be expected to stand a contest for any such hospital appointment; and we understand that a candidate for the appointment in question has been nominated.

Dr. Farquharson has been elected Lecturer on Materia Medica at St. Mary's Hospital.

Members of the Pathological Society who wish to take part in the discussion on cancer on March 3 are requested to send in their names to the Secretary beforehand.

LETTER FROM THE GOLD COAST.

We have been kindly favoured with a copy of the following interesting letter from the seat of war, containing information of the latest date:—

"H.M.S. *Victor Emmanuel*, Cape Coast Castle, Jan. 16.

"We are sweating out a weary existence here. On account of the failure of the transport, nothing has been done since my last. These contemptible Fantees will neither fight, scout, nor carry. A little work is being squeezed out of those few they can catch, and a few mules, donkeys, and bullocks have been imported; but, all told, there is nothing like sufficient to enable things to go on smoothly. The Rifle Brigade and 42nd are halted in wings on this side of the Prah. The 2nd Battalion 23rd Regiment disembarked (one wing only) on the 5th, but had to embark on board the *Tamar* again on the 12th. To prevent bad feeling, however, 100 men and eight officers (colonel, adjutant, one captain, four lieutenants, and surgeon-major) have again disembarked, and are to go on and cross the Prah. An equal number of the 42nd are to do likewise, the remainder to stand fast. In this way the doubtful glory of crossing the Prah, and perhaps seeing Coomassie, will be equally divided.

"Sir A. Alison and staff go on again to-day from Cape Coast Castle. I hear there is a good deal of palavering going on between Wolseley and King Koffee; but of course we are bound, if possible, to see the place. After the 'palaver' on the 2nd, one of the Ashantee messengers was so dumfoundered on seeing the Gatling guns perform that he retired and blew his brains out. Mr. Dawson, the Wesleyan missionary at Coomassie, has been sent down as a messenger.

"Life in the bush seems very pleasant from all accounts, at least much more so than either at Cape Coast Castle or on board ship.

"The huts at the different halting-places are most comfortable, and the supplies are good, and, so far, sufficient in quantity. The health of the men on shore is excellent. We have only thirty-two men and five officers in hospital on board to-day, and very few of these are suffering from climatic ailments. Altogether, we have had only forty-three admissions (men) since our arrival here; and as most of the sick find their way here, this represents almost all the sickness amongst the military, including Marines, on and about the West Coast. In the *Manitoban*, on the 10th inst., we sent five invalids—viz., one heat-apoplexy, one lumbar abscess, two syphilis, and one ague. In the *Dromedary*, to-morrow, we are to send five—viz., one remittent fever, one dysentery, one erysipelas (contracted in the *Sarmatian*), and two acute rheumatism (also from the *Sarmatian*). All these are convalescents, able to look after themselves. So far you will see we have had really no sickness. The few we have got have all done remarkably well since coming on board to us, where they get plenty of fresh air and good food. Our naval authorities, like all their class, are much too fond of flooding the decks with salt water every morning, and on this account we are not so comfortable as we might and ought to be. Of course we take care of the hospital deck, but still a check to this daily flooding is sadly needed. The yellow fever panic has entirely blown over now that the matter has got fairly ventilated. These African mail steamers, from which alone there was any fear of its being introduced, are now kept well off, and are on no account to be employed for taking invalids home. Thus in their case virtue has had its reward, although at he expense of one good officer—viz., Lieutenant Wells, R.N., who left this in good health, and seems, as far as we can judge, to have died of yellow fever. Surgeon-Major Mackinnon, C.B., arrived on the 13th, having come on from Madeira in the *Sprite*. He goes on to the front to take hold of the medical reins to-morrow. In addition to the five men, we send five officers (invalids) on board the *Dromedary* to-morrow.

"I hear that 150 of the 42nd have volunteered to carry baggage, etc., and so enable them to get along somehow; but I doubt if their services have been accepted. With the temperature at 82° in the shade, and the difference between the wet and dry bulbs only 1° to 2°, you can imagine we do not feel up to much. We heard a good deal about the dry, frizzling Harmattan winds, but have seen nothing like them yet. Everything gets covered with mould in a few hours.

"I may just add that the few cases of fever and dysentery we have had have proved very amenable to quinine and ipecacuanha respectively, as in India. In some of the officers who have been here since October and November, dysenteric symptoms have not been easily controlled, but these were doubtless of a scorbutic character. Everybody seems most anxious to fight, and it is very difficult to persuade either men or officers that it is good for them to give up the idea and go home.

"Excuse this disjointed scrawl. We have been rolling about a good deal the last few days; about 10° to 11° each way is our maximum, but some of the lighter craft about show their keels much more. We try our new surf-boats this afternoon.

"J. F. B."

RECRUITING FOR THE ARMY.

Surgeon-Major Adams, the medical officer in charge of the London recruiting district, lately read a paper at the United Service Institution on the question of providing recruits for the army. This was followed by a discussion, in which several distinguished officers took part. The facts elicited entirely bear out the observations which we have from time to time recorded on this subject. Dr. Adams stated that within his knowledge the numbers and quality of recruits in late years have been declining, and quoted official statistics to prove the justice of his remarks. Dr. Cameron, with forty years' experience of military life, fully corroborated Dr. Adams's statements; and Colonel Lysons, Assistant Adjutant-General and Inspecting Field Officer, whilst freely acknowledging the inefficiency of the present levies, referred the cause to the abolition of pensions and bounty-money, and the want of encouragement generally held out by the War Office authorities to enlisting and soldiering. General Sir Percy Douglas, Inspector-General of Militia, and Colonel Evelyn, severely criticised the present system of recruiting for the militia; and Major Wethered, Royal Artillery, complained bitterly of the dearth of men. Mr. Alsager Hay Hill, Director of the Labour Agency, who had been requested to give his opinion on this subject, stated it to be his belief that the present want of recruits was simply a matter of pounds, shillings, and pence; and that Government could obtain as many men as they wanted if they would come into the market and, by means of a fair scale of pay and advantages, compete with civilian employers of labour.

In the face of this unanimous condemnation of the present system on the part of a body of gentlemen whose positions entitle their opinion to the utmost respect, it would be culpable to sit down without attempting some species of reform; and—leaving party feelings entirely out of the question—it is sincerely to be hoped that, whatever Administration is called to the head of affairs in the forthcoming Parliament, some steps will be promptly taken to render recruiting for the army more popular, and to attract a finer and better class of men to enlist themselves for the service.

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PAINFUL NEUROMA OF THE SKIN OF UNUSUAL CHARACTER.

In the *American Journal of the Medical Sciences* for October, 1873, Dr. Duhring has recorded a remarkable case of what might be called multiple neuroma, but which differs in important particulars from any case hitherto described. The patient is an Irishman, aged seventy. Ten years ago he first noticed a few small painless nodules on the left shoulder, which soon increased in size and number, so that in about four years the shoulder and arm down to the elbow were closely studded with them. There was no pain felt till they had lasted three years. On this point the patient is very decided. The nodules vary in size from a pin's head to a pea, and the skin over them is of a purplish-pink colour, and at parts covered with fine yellowish-white laminated scales of imperfectly formed epidermis. The outside of the arm only is affected, the axilla and inner surface being normal. The nodules are tender and painful on pressure, and, besides this, the patient suffers from paroxysmal attacks of pain of a most excruciating nature. These attacks occur usually twice a day if he lives quietly, but if he is tired or excited, or meets with any wound or blow, however slight, they become more numerous and more intense. Even movements of the arms or draughts will bring on a paroxysm. The pain is most severe during the first ten to thirty minutes, and he is sometimes forced to roll on the floor in agony. It then declines, and disappears in one or two hours entirely. The skin gets hot during the fit, and remains so for some time after the pain has subsided, and the pain itself radiates over a larger surface than that which the nodules cover. The patient's general health is on the whole satisfactory, and no member of his family has been similarly affected. He is decidedly better in summer than in winter, and always finds relief from dry heat, so that he likes to sit close to a hot stove or fire, with his arm exposed to the warmth, when suffering from the pain. No treatment has had any notable effect on the disease; blistering gave slight temporary relief, but narcotics have been tried in vain. Dr. Duhring excised one or two of the nodules, and examined them microscopically. The naked-eye appearance of a section was that of a whitish, firm, and homogeneous substance, which, when magnified, was found to consist of a new connective-tissue growth which pervaded the corium. The rete mucosum and epidermis were but little altered, though the former in parts showed signs of proliferation, and there were places in it where a concentric arrangement of cells had a certain resemblance to the "nests" of epithelioma. No nerve-trunks or fibres could be discovered in chloride of gold preparations, though there were here and there filaments which might be the terminations of extremely fine nerves. Notwithstanding this, the severe pain which the patient has sufficiently shows the intimate connexion of the growths with nerves, and Dr. Duhring has no doubt that the case must be classed as one of multiple neuromata. It differs, however, from the ordinary cases of this affection—which is by no means a common one—in being attended by pain, which is usually absent where there are many neuromata, though so constant where there is only one. Only two cases at all similar have been recorded—one by Dr. Smith (of Dublin), in his "Atlas of Neuroma," and the other by Vallender, quoted by Virchow,—but neither corresponds exactly to the above case, and in neither did the pain at all equal its intensity in the latter.

THE THERAPEUTICAL ACTION OF BROMIDE OF POTASSIUM.

The *Practitioner* for January of the present year contains two articles of great interest in connexion with the above subject—one by Professor Binz, of Bonn, and the other by Dr. Anstie; the former viewing it rather from the theoretical, and the latter from the practical side of the question. Professor Binz endeavours to show that not only has the value of bromide of potassium as a drug in diseases of the nervous system, such as epilepsy and its allies, been over-estimated, but that it is questionable whether its action is not entirely due to the *potassium* it contains, and not to the bromine. If we remember rightly, this view was also propounded by Professor Leidesdorf, of Vienna, in 1871, in the *Wiener Allgemeine Med. Zeitung*. Assuming his theory as correct, Dr. Binz explains the action of bromide of potassium by a general improvement of nutrition, caused by the addition to the blood of potash salts in excess, these being such important constituents of the red blood-corpuscles and of the general muscular system. The tonic action of the potash on these would thus remedy indirectly the effects of a chlorotic condition of the blood—namely, an enfeebled activity of the heart and bloodvessels; and in large doses potash might "directly influence the human heart in various senses, so as to rectify abnormalities in the distribution of blood which would be reflected from the brain in the shape of insomnia and restlessness." Dr. Binz sums up his paper by suggesting further investigation of the action of bromide of sodium and chloride of potassium; and, though he admits that the bromide of potassium has some value, yet he believes that it will be less and less used as time goes on, and that the results ascribed to it may be accounted for (1) by the (natural) decline of the morbid processes for which the drug is given; (2) by the psychical impressions on the patient, who is encouraged by the idea that he is taking something to benefit him; and (3) by the improvement of nutrition set up by the potash salts, and by other factors which mislead observation. To these sceptical views Dr. Anstie makes what we consider a triumphant reply. He first points to the unanimously favourable experience of English physicians who have made much use of the bromide of potassium, alluding especially to that of Dr. Russell Reynolds, Dr. Radcliffe, Dr. Hughlings-Jackson, Dr. Ringer, Dr. Clouston, and himself. He might have added, among Germans, the strongly expressed opinion of the late illustrious Niemeyer in the chapter on epilepsy in the eighth edition of his work on medicine. All these authorities assign to the bromide a controlling action over epilepsy, and some extend their belief in its efficacy to other forms of convulsion, as well as to insomnia and restlessness. With regard to insomnia, Dr. Anstie, while admitting the weight of English testimony in favour of the bromide, has himself found chloral more serviceable in this disease, and has in *aged persons* even seen the former aggravate symptoms which it was intended to relieve. In neuralgia the bromide is extremely valuable in certain cases, "especially those arising from sexual worry." Speaking of the question as to which element in the bromide of potassium is the active one, Dr. Anstie states that, as far as epilepsy in concerned, he has experimentally proved the uselessness of bicarbonate of potassium and nitrate of potassium given for some time in full doses, but he agrees with Professor Binz that the action of chloride of potassium requires to be more thoroughly examined. Both the articles here briefly discussed will well bear perusal in their entirety, and we therefore shall refer our readers to the original for further details.

DISEASE AND MORTALITY IN DUBLIN.

The yearly summary of the weekly returns of the deaths in Dublin for the year 1873, just published by the Registrar-General in Ireland, shows that 8212 deaths were registered in the Dublin registration district during the year 1873—4121 males and 4091 females,—being equal to a ratio of 1 in 38, or 26 in every 1000 of the population. On the north side of the river there were registered 2947 deaths, or 27 in every 1000 of the population, and on the south side 3992, or 29 per 1000 of the population. In the suburban districts of Rathmines, Donnybrook, Blackrock, and Kingstown the number of deaths

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registered amounted to 1273, or 19 in every 1000 of the population, the ratios being respectively—Rathmines 17, Donnybrook (which includes the City of Dublin Hospital and the Hospital for Incurables) 24, Blackrock 17, and Kingstown 15 in every 1000 of the population. Of the 8212 deaths in the entire district, 2602 were registered in the first quarter, 1941 in the second, 1639 in the third, and 2030 in the fourth, the weekly average being 155. The deaths registered in Belfast during the year afford a ratio of 26 in every 1000 of the population; in Cork the ratio afforded by the number of deaths registered was 27 per 1000; in Limerick it was 26, in Londonderry 21, in Waterford 33, in Galway 23, and in Sligo 22 in every 1000 of the population. The number of deaths from zymotic diseases registered during the year was only 1378, or 16·8 per cent. of the total deaths; this number affording a mortality of 4·4 in every 1000 of the population. The average yearly number of deaths from these diseases registered during the previous nine years was 1906, or 23·3 per cent. of the average annual mortality from all causes, and equal to 6·1 in every 1000 of the population. Excluding the year 1866, in which there was an epidemic of cholera, and 1872, during which small-pox committed great ravages, the mortality from zymotic diseases last year still contrasts favourably with the average in the remaining seven years for which these returns have been published.

DEATH OF THE SIAMESE TWINS.

We recently reported the death of the wonderful phenomenon known as the "Siamese Twins." It seems that Chang had been complaining for the last two months, and succumbed the first, Eng surviving him only a few hours. Dr. Hollingsworth, of Mount Airy, North Carolina, residing about three miles from the residence of the twins, was summoned immediately it was found that the first brother was dead, but he did not arrive until after the survivor had expired. The cursory examination made by Dr. Hollingsworth showed that the band which connected the twins was an extension of the sternum for about four inches in length and two in breadth; the band was convex above and in front, and concave underneath. The two bodies had but one navel, which was in the centre of the band, and it is presumed that there were two umbilical cords branching from this, one extending into each body. The connecting link was found to be the ensiform cartilage, and was as hard as bone, not yielding in the least. For some time previous to their death no motions were observable in this band. Dr. Hollingsworth was of opinion that they would not have survived a separation, not from a fear of hæmorrhage, as apparently there were no arterial connexions of any magnitude, but from the risk of producing peritonitis. Another opinion expressed is, that Eng died from loss of blood, caused by non-circulation after the death of Chang, the blood flowing from Eng into the body of Chang. The connecting band, which is about eight inches long, was warm up to the time of Eng's death, and the formation and nature of this ligament proved that the same blood flowed in the veins of each of the brothers. A strong indication of the failing circulation is to be found in the fact that Eng complained of feeling cramped before he died. It is reported that the remains (which have not been buried) are to be disposed of for the highest sum obtainable; and it is further stated that the two wives of the twins have demanded the modest sum of ten thousand dollars for the privilege of holding a thorough post-mortem examination of the bodies.

CONDURANGO IN CANCER.

Professor Friedreich, of Heidelberg, has published an account of a case of cancer of the stomach, which has apparently been cured by condurango (*Berliner Klinische Wochenschrift*, 1874, No. 1). A man of fifty-four was admitted into the hospital with a history of dyspepsia and epigastric pain for the preceding ten months. He had often been sick after eating vegetable food, bringing up a clear, watery, acid liquid, but he had never vomited blood. He had failed much in general health; he was now found anæmic and wasted. In the abdomen—between the ensiform cartilage and the umbilicus, and towards the left side—solid, firm, rounded tumours could be distinctly felt. Slight pressure was attended with pain; and soft peritoneal friction was easily discovered. Above the left clavicle the lymphatic glands were considerably swollen. The tongue was white; there was occasional nausea; and the bowels were confined. There was no albumen in the urine. The other organs seemed healthy. The case was diagnosed to be undoubtedly one of carcinoma ventriculi, with enlarged, and probably carcinomatous, supra-clavicular glands. Three days after, the patient left the hospital, the pain having diminished, and the peritoneal friction disappeared. In a fortnight, however, he was readmitted with very severe epigastric pain, peritoneal friction, and pyrexia. The legs were also slightly œdematous. The last symptom disappeared, and the pain was relieved in a few days, but the others remained, and the tumours could be felt as before. Eighteen days after his second admission the patient was ordered condurango in the form of an extract. The drug had been taken but twenty days when the supra-clavicular tumours had become smaller; and in another week the glands had fallen to their usual size. During the same time the epigastric tumour was found diminishing in size. The dose of the condurango was now increased by one-half, and in about another week the general health had considerably improved; pain and dyspeptic symptoms had disappeared, and the appetite was good. The epigastric tumour also had become very much smaller and less tender. This improvement continued, and in another fortnight the epigastric tumour was not larger than a walnut. Two months later the patient left the hospital in perfect health; the appetite was good, and the digestion normal; and on deep palpation over the stomach a very hard painless tumour could be felt to the left of the ensiform cartilage no larger than a hazel-nut. On several subsequent occasions the patient was again examined, and the same results obtained. Friedreich does not pretend to say that condurango is a specific for cancer, for the case is but a single one; but he is as little inclined to think that there is no remedy to be found for cancer—for do we not possess analogous remedies, as, for example, iodine in bronchocele, and mercury in syphilis? He is anxious that others should try condurango in cancer, and that for a sufficiently long time and after suitable preparation. Professor Friedreich does not seem to be aware of the experiments made with condurango in this country, all of which were unfavourable to the drug.

THE ORIGIN OF THE BILE-DUCTS.

At the late meeting of the German Association at Wiesbaden, Professor Kupffer, of Kiel, described certain new points in the histology of the mammalian liver, which should prove as interesting as they are new to most anatomists. By the injection of the bile-ducts and bile-capillaries, small cavities or vacuoles may sometimes be filled within the liver-cells, which are connected with the bile-capillaries around the corresponding cells by means of excessively delicate canals. The appearance presented by a good specimen of injected liver is that of a number of small stalked buttons attached to the bile-capillaries, the stalks being, as a rule, somewhat bent. Hering, who has advanced the knowledge of the hepatic structure so considerably, has not failed to see these knobs, but believes them to be accidental extravasations within the substance of the cell. The regularity of the appearance, however, and the presence of the delicate canal of communication, support the view advanced by Kupffer. This anatomist recognises in the intra-cellular spaces

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secreting vacuoles or capsules, from which the bile flows into the capillaries. The liver-cells which are furnished with such vacuoles would therefore closely resemble the capsule-cells discovered and described by Kupffer in the salivary glands of some insects.

THE LOCAL TREATMENT OF CAVITIES IN THE LUNGS.

A NOVEL method of treating pulmonary cavities in phthisis and dilatation of the bronchi was lately submitted by Professor Mosler, of Greifswald, to the notice of the members of the German Association, at their annual meeting at Wiesbaden. It consists in injecting certain drugs through the wall of the chest into superficial caverns, and leaving the canula in, so as to repeat the operation frequently at discretion. Mosler went even farther; he made an incision into the wall of the cavity, inserted a silver tube or elastic catheter, and succeeded in drawing away the secretion, and in disinfecting the pyogenic walls by means of weak carbolic acid lotion. No difficulty was experienced in the operation, and the condition of the patient was improved; the cough became less troublesome, and the febrile symptoms apparently moderated. Mosler's patient was still under treatment at the time of his communication, so that it was impossible to tell what the final result might be, and whether granulation and cicatrisation would ensue. One point seemed settled as far as it could be by a few experiments, and this was, that the local treatment of pulmonary cavities is undoubtedly practicable, and that the lung is more tolerant of external interference than has generally been believed. At the same time, the risk of pneumothorax, hæmorrhage, and pyæmia must not be forgotten.

HEALTH IN THE PUNJAUB.

THE Sanitary Commissioner of the Punjaub, in his weekly return for the week ending December 6 last, reports that the Delhi district continues very unhealthy; the death-rate is 51 per mille. Though the total deaths in the city of Delhi show a slight increase when compared with those of the previous week, the returns for the last four weeks show a great and progressive improvement in the general health. In the week ending October 11 the total deaths were 185; in the week under review they were only 136. The death-rate continues very high in the districts of Lahore and Shâhpur. The epidemic at Faridabâd continues to cause great mortality, and shows no sign of abatement. The death-rate of the large towns generally, though still excessive, shows a downward tendency. One death was registered under the head of cholera. It occurred at Kallar Khar, in the Jhelam district; but from the remarks made in the register it is almost certain that it was not a true case of cholera. Small-pox continues to make steady progress. The total deaths registered under this head were 157, the number in the previous week having been 125. The disease has broken out in a very virulent form in the town of Jhajjar. The districts of Rohtak, Karnâl, Râwalpindi, and Hazâra appear to be largely tainted with the disease. There can be little doubt that the returns greatly understate the deaths caused by small-pox.

MUSHROOMS *v.* HUMAN LIFE.

AN inquiry into the death of two children at Henrietta-place off Henrietta-street, Dublin, which was concluded last Monday, is not without interest from a sanitary point of view. The basement of the house in which the deceased lived was partially filled with manure, and used by the landlord, Mr. Tristram Kennedy, *for the purpose of cultivating mushrooms!* The infants, aged fifteen months and three months respectively, had been for some time in bad health, due, in the opinion of the attending physician, to the noxious emanations from the mushroom-beds beneath their dwelling-room. The mother and both children suffered from diarrhœa; convulsions, consequent on asthenia, caused the death of the elder child, and the younger infant sank also. The evidence of the physician in attendance, and of Dr. Cameron, the analyst to the city of Dublin, went to show that the effluvia from the manure would produce disease; while a third medical man did not think that stable manure would have an injurious effect on anyone.

BELFAST BRANCH OF THE ROYAL MEDICAL BENEVOLENT FUND SOCIETY OF IRELAND.

THE annual meeting of this excellent institution was held last week, and was numerously attended. Dr. T. H. Purdon was in the chair. From the treasurer's report it appears that the receipts during the past year were £334 13s. 11d., and the expenses £1 12s. 7d., in this respect offering a striking contrast to similar institutions where the expenses are enormous in proportion to the income. The report referred to the liberal aid which the branch of the association had during previous years received from the medical students of Belfast—"an example which the students of other medical schools, it was stated, were following with good effect towards considerably increasing the resources of the Society, and as a consequence its usefulness." A list of subscriptions and donations for the present year was read, amounting to a considerable sum. After the usual routine business, the Society adjourned.

UNIVERSITY COLLEGE HOSPITAL DINNER.

THE annual dinner in behalf of the funds of University College Hospital took place on Tuesday, the 10th instant, Lord Derby in the chair. From the reputation of the chairman, perhaps also from the peculiar political situation, the attendance was larger than usual. In the course of his speech, Lord Derby pointed out that from the nature of things a hospital was one of the least objectionable forms that charity could possibly assume; for though its benefits might be abused by people in a grade of society above that which should require hospital aid, still these people were really ill when they came to seek relief. In proposing the health of the noble chairman, Sir Francis Goldsmid somewhat unfairly took upon himself to hint that many would be pleased to see Lord Derby at the head of the new Government. Lord Derby, however, as he himself said, refused to jump at the fly thus dexterously flung, but significantly added that whoever had sustained the burden and toil of the day ought to reap the reward of success. Donations and subscriptions to the extent of about £1500 were announced in the course of the evening.

MEDICAL MICROSCOPICAL SOCIETY.

THE first annual meeting of this Society was held on Friday, January 16, at eight o'clock, at the Royal Westminster Ophthalmic Hospital, Jabez Hogg, Esq., President, in the chair. The Secretary having read the minutes of the last meeting, proceeded to read the report of the Committee. From this it appeared that the Society, though only one year old, was in a most flourishing condition. During the year 129 members had joined it, and sixteen papers had been read, each of them having been followed by a lively discussion; and at no meeting had there been any lack of specimens for exhibition. The Treasurer's report was also satisfactory. Ninety-six of the members had paid their subscriptions, which amounted to £47, and there had been spent for the Society £36 10s. 3d., thus leaving a balance of £10 9s. 9d. Besides this, thirty-five members still owed their subscriptions, which would make £17 10s. more to be added to the balance. The following gentlemen were elected officers for the ensuing year:—*President:* Mr. Jabez Hogg. *Vice-Presidents:* Mr. W. B. Kesteven, and Drs. H. Lawson, J. F. Payne, and W. Rutherford. *Treasurer:* Mr. T. C. White. *Honorary Secretaries:* Messrs. C. H. Golding Bird and J. W. Groves. *Committee:* Drs. M. Bruce, E. C. Baber, U. Pritchard, W. S. Greenfield,

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H. Allchin, J. Matthews; Messrs. H. Power, F. T. Paul, J. Needham, G. M. Giles, S. Coupland, and E. A. Schäfer. The President then gave his address, after which votes of thanks were accorded to the President and other officers of the Society. At the next meeting, to be held on Friday, February 20, at eight o'clock, Mr. B. T. Lowne will read a paper.

COMMODORE COMMERELL.

By a letter received from a special correspondent, we learn that Commodore Commerell, after most severe complications, some of them aggravated by the hot climate of the West Coast of Africa, and after expectorating some pieces of blue cloth and flannel in muco-purulent sputa, which latter he coughed up for several weeks, was sufficiently recovered to be discharged to duty on December 30 last, having been on the sick-list since he was wounded on August 14 last. The Commodore sailed on the 9th of last month for England in her Majesty's ship *Rattlesnake*. If he be unable to face the cold climate of England, he will probably be landed at Madeira or some other warm place, and not proceed to England until the warm weather sets in.

KING AND QUEEN'S COLLEGE OF PHYSICIANS IN IRELAND.

The Fellows of the College have received, and are about to consider, the report of the committee appointed to draw up a curriculum and form of diploma for midwives in accordance with the provisions of the Charter. It would perhaps be premature for us to offer any remarks on the subject until the whole question is settled by the College, but we learn with pleasure that there is no likelihood of the proposed diploma or licence being confounded with the licence to practise midwifery which is granted only to licentiates in medicine of the College, or to those who hold a degree or licence in medicine or surgery from any university or college of physicians or surgeons in the United Kingdom. Under these circumstances the new diploma will not entitle the holders of it to be registered, nor to practise medicine under colour of being Licentiates in Midwifery of the Irish College of Physicians.

THE MEDICAL OFFICERSHIP OF HEALTH FOR THE CITY.

The post of Medical Officer of Health for the City being now vacant by the lamented resignation of Dr. Letheby, a sharp contest is going on as to who is to be his successor. Dr. Tidy, at present Medical Officer of Health for Islington, has long been Dr. Letheby's *aide*, and might therefore legitimately look forward to succeeding that gentleman in his honourable office. He is, however, being opposed, as we understand, by Dr. Sedgwick Saunders, who is also a member of the Common Council. We hardly know how far it is right and proper for Dr. Saunders, while holding that office, to become candidate for a post held, in a certain fashion, under the Common Council.

YELLOW FEVER IN THE ROYAL NAVY AT JAMAICA.

A telegram has been received in this country from Bermuda, reporting a serious outbreak of yellow fever on board her Majesty's ship *Aboukir* at Jamaica. Mr. Drew, secretary to Commodore de Horsey, Navigating-Lieutenant Thompson, and twenty-five men were dead. Nearly every case had proved fatal, the fever being of a very malignant type. The *Aboukir* had on board two hundred supernumeraries for the Pacific, in addition to her own crew.

UNIFORMITY OF MEDICAL FEES.

A regular tariff of fees has been adopted by the Amsterdam Medical Club, which its members are pledged never to exceed. It is reported that there is a widespread movement in Holland favourable to such uniformity of fees.

CHOLERA IN HOLLAND.

Dr. Ballot, of Rotterdam, writes to us as follows:—

"Since my last letter (see *Medical Times and Gazette*, 1873, p. 641), the mortality from cholera in our country stands thus:—From November 30 to December 6, 11 cases; from December 7 to December 13, 9; from December 14 to December 20, 19; from December 21 to December 27, 12; from December 28 to January 3, 2; from January 4 to January 10, 5; from January 11 to January 17, 7; and from January 18 to January 24, 10 cases. In Rotterdam the mortality was for the same dates 5, 1, 0, 2, 2, 2, 2. Since January 15 no death from cholera, and since the 19th no case of cholera, has occurred here; so that during this little epidemic, which lasted from October 11 to January 19, there were 95 cholera patients, of whom 61 died. According to our law on epidemic diseases of 1873, our burgomaster took the necessary measures for the disinfection of the dwellings of the cholera patients. A philanthropic Cholera Commission distributed water purified by the means of chloride of iron in the poorer parts of the town where cholera cases occurred.

"P.S.—Our Rotterdam committee for public health have recommended to the town magistrates, in an extensive report, the introduction of the pneumatic sewerage system of Captain Liernur throughout the whole town. The practicability of this system has been proved in Leyden and Amsterdam."

MORTALITY OF LONDON.

The deaths registered in London last week were 323 below the average, the total number being 1411. The annual death-rate was 22 per 1000. The deaths from the seven principal diseases of the zymotic class numbered 150, being no less than 127 below the average. The fatal cases of measles (48) were again, however, in excess, but they continue steadily to decline.

JÜRGENSEN ON THE SLIGHTER FORMS OF TYPHOID FEVER.

Typhoid fever must be a subject of interest to the medical profession for many years to come, until its history is more fully worked out than at present, and we are able to say with absolute certainty what is and what is not typhoid. It is still a question whether many of the cases now returned as simple continued fever are not in reality typhoid; and we cannot but be indebted to all those who, by their observations, aid in settling this important question. There can be little doubt that a form of typhoid fever which, from its mildness, does small harm to the patient himself, is still quite as dangerous, *quoad* infectiveness, to the community at large as one labouring under a more severe variety of the disease; and it certainly makes all the difference to the patient himself whether his doctor recognises the nature of his illness or not, and treats him accordingly. The philosophical and, in many ways, original lecture of Professor Jürgensen, of Tübingen, on the slighter forms of typhoid fever (Volkmann's *Sammlung Klinischer Vorträge*, No 61), of which the following is but a brief abstract, will therefore be doubtless acceptable to most of our readers:—

There are several reasons why the slighter forms of typhoid fever have not received the attention they deserve. In the first place, medical men are too apt to consider the representative descriptions of a disease given in books as portraying actual forms of that disease, whereas they only exhibit at one view the aggregated characteristics of many varieties of it. Thus, when they find a case which does not fit into the typical description, they disregard it altogether, to the manifest detriment of the patient.

Again, slight forms of fever may not come under the physician's notice at all. They are called by the patient's friends "rheumatic" or "catarrhal," and receive domestic treatment.

Thirdly, many abortive forms of disease can only be diagnosed from *etiological* considerations, and to do this a

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physician must see many patients. Now, during large epidemics his time is necessarily devoted to the severer cases, as every man's strength has certain limits. Moreover, mild cases as a rule do not seek admission into hospitals.

Professor Jürgensen lays down the following dictum, which must be accepted if our present views about the acute exanthemata be correct—namely, that in each of them, since each arises from a specific cause, we must be able to find cases which shall represent every stage of intensity of that disease from the slightest to the most severe forms. By a specific cause is meant a something (*Etwas*) with properties peculiar to itself, which occur in it alone in all nature. This "something" produces, by its entrance into man's organism, certain peculiar and sharply defined anatomical and functional phenomena in individual organs and in the general processes of nutrition (*Stoffwechsel*).

There are three categories of infectious diseases—(1) those in which the person attacked can by contact with another produce in him the same disease in turn—*e.g.*, the acute exanthemata; (2) those in which a carrier of the infectious principle is required for it to enter the body from without—*e.g.*, typhoid fever and cholera; (3) those which require the aid of factors external to man's organism in order to become efficient—*e.g.*, malarial affections.

Now, the conditions of the existence of an infectious disease are that the "something" (*Etwas*) spoken of above shall meet with an organism in which mutual action and reaction (*Wechselwirkung*) can take place. The exact form (*Erscheinungs form*) in which the disease then manifests itself depends clearly on two factors—the intensity of the exciting poison, and the resisting power of the host,—and both vary very widely; so that these considerations alone would lead us to expect all grades of severity of such a disease. The patient himself will be the gainer by this view, for when the physician comes to consider the sick man's organism and its resisting power as one of the two factors which he must keep in view, he will be less likely to forget that he has a diseased person, and not the entity called disease, to treat (*einen Kranken, keine Krankheit zu behandeln hat*).

When two bodies, mathematically speaking, react on one another—*cæteris paribus*,—the effect produced depends on their relative size. We must therefore inquire whether the *intensity* of an infectious disease varies with the *quantity* of the poison received into the system or not, and so whether the existence of slight forms of the disease means the absorption of small amounts of the infecting material.

We can adduce several arguments in favour of such a view. Thus, epidemics vary in intensity as well as in extensiveness, and we may say in general terms that the most extensive epidemics are equally the most intense. Or (2) take an individual epidemic. The worst cases occur when it is at its height; and is this not most simply explained by the presence at the time of a large quantity of the poison? In the latter case objection may be made that in zymotic diseases there is a multiplication of the poisonous element in the organism itself; but the objection is less trustworthy than it at first sight appears. Jürgensen and Körner have proved(a) that pus from a soft chancre can be diluted with successive additions of an indifferent liquid (*e.g.*, serum), so that, in inoculations with it, not only is the incubative period gradually lengthened, but the size of the resulting pustule diminished until it cannot with certainty be diagnosed as chancroid. Here the result is probably due to tissue changes, by which some of the germs are destroyed, for Ludemar Hermann has especially pointed out that the effectiveness (*Wirksamkeit*) of a poison depends on its concentration in the blood, and this is being continually lessened by the processes of excretion from the blood.

Some persons may consider that the cause of difference between the intensity of different examples of the same disease lies in a change in the *quality* of the poison received. It has been decisively proved that vaccine matter loses its power when transmitted through many generations of men, probably from the destruction of some of its germs through tissue-change; or else it may be that while the number of the germs remains the same, their properties have altered through time. Whatever view they take, all persons must admit that at any rate *a greater or less amount* of the poison can act so as to produce disease; so that this alone would account for its slighter forms, even if the resisting power of the receiving organism were to remain the same. The question next arises, Is the *resisting power* of different individuals really the same? and in answering it we must clearly distinguish between the *receptiveness* (*Empfänglichkeit*) of an organism and its resisting power to the poison when received. *Receptiveness* to chancre-poison, for example, will depend on whether the skin of the penis is thick or thin, whole or excoriated, in two individuals; but the poison once absorbed, the one with the thicker skin may have severer symptoms than the other. This may explain the fact that some people hold out longer against the invasion of a disease than others, and also why cholera often follows dietetic errors. *Resistance* to disease must be broken up into two factors—(1) general resisting power—*i.e.*, a good constitution, about which we can make no certain prediction prior to experience; (2) resisting power to certain toxic substances, a factor of excessive variability in different individuals. This is shown by the effects of alcohol, opium, and the alkaloids, and is true, also, of the class of infectious diseases which most people only suffer from once in their life, though a few may have them twice or more. For instance, Jürgensen knows a person who has had scarlet fever four times, the two last times when the disease was only sporadic. On the other hand, how many escape such diseases—for example, scarlet fever—altogether; and what would have happened at the time of the Plague if everyone had had it? So, then, since we find such variations in the grade of intensity of the poison, and in the receptiveness of the individual, we must admit that all gradations of intensity of the disease from zero to the maximum are possible, and to be expected.

We can now turn to the phenomena of the slighter forms of typhoid fever as Jürgensen describes them, and see in what they differ from the ordinary forms. It was Griesinger who first called attention to such cases, and showed that it is their *short duration*, and not the slightness of a typhoid fever running its normal course, which characterises them. Although his facts have not been doubted, yet they have not received the assent they deserve. Jürgensen has founded his present statements on the observation of more than a hundred cases during three epidemics in and about Kiel in 1865, 1866, and 1868. In the last epidemic, twenty-nine persons connected with the academical hospital were attacked, and one died and was found to have all the anatomical characteristics of typhoid fever. There was a close resemblance between all the cases. In the first place, the onset of the disease is usually sudden (seventy-four times in eighty-seven), and in half the cases is accompanied by a pretty well-marked rigor. There is headache, while the temperature rises quickly to its maximum—sometimes to 40° Cent. (104° Fahr.) in thirty-four hours,—and not in the usual zigzag fashion. At the height of the disease morning remissions of 1° to 1½° and nocturnal exacerbations occur, just as in the ordinary severe forms, only the remissions are slighter. The absolute height of the temperature varies considerably, and the influence on it of quinine and of cold applications is relatively great. After cold baths there are often very decided irregularities in it—*e.g.*, higher morning than evening readings. In the second stage, a high temperature with only slight remissions is not so very uncommon, the thermometer standing above 40° Cent. for several days. The fever-curve of the slightest forms of typhoid exhibits the influence of insufficient infection in all their stages "by the prevalence of the law which governs the normal temperature over that called into operation by the typhoid poison." The usual steep curves of the third stage (high evening and normal morning temperatures) fail entirely in the slight forms, and the temperature generally falls gradually in from twenty-four to seventy-two hours to its normal level.

Swelling of the spleen was present in eighty-one out of eighty-eight cases. Roseola is often absent in the very short cases (ten days); but generally present in those lasting two weeks or more, and occurs about the fourth or fifth day; and, as a general rule, the more intense the rash, the more severe the disease. Bronchial catarrh seldom occurs, and diarrhœa was only present in 16 per cent. of Jürgensen's cases, while perforation and hæmorrhage from the bowels were not observed once. Albumen is often found in the urine early, especially in the cases in which the fever runs high. The period of convalescence is relatively a long one, and is accompanied by great muscular weakness, which may even pass on to temporary paralysis if the muscles be at all overstrained. Relapses are rather of frequent occurrence, though Jürgensen refers them all to errors in diet on the patient's

(a) Dr. Burdon-Sanderson has, we believe, published somewhat similar experiments made with vaccine lymph.

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part, as he found a definite connexion between the two in all his cases. He believes that the so-called "*Typhus ambulatorius*" of books is only a slight attack of typhoid fever, prolonged and exacerbated by dietetic errors, and he therefore insists even more strongly on absolute diet in the slighter than in the ordinary well-marked forms of the disease. No patient under his care is allowed to take solid food until the temperature in the rectum has not, for at least six days, reached 38° Cent., four readings being taken daily. Jürgensen's explanation of the typhoid relapses after improper food is that in such patients the intestine does not at first offer a suitable nursery (*Boden*) for the increase of the fever-poison, but requires an external irritation—*i.e.*, solid particles of undigested food—to fit it for reproduction. Therapeutically, in addition to absolute diet and rest in bed, Prof. Jürgensen makes use of quinine and cold baths in such cases as there seems danger from the fever-process itself.

The same season of the year (August to November), and the same period of life (fifteen to thirty years of age), which furnish the greatest percentage of severe typhoid cases, also give the greatest percentage of the slighter.

ON THE HYGIENE OF HOSPITALS.

By M. BOUCHARDAT,
Professor of Hygiene at the Paris Faculty of Medicine.

(*Continued from page* 162.)

Professor Bouchardat next proceeds to consider the mortality after operations as influenced by various causes; but as he adduces no new facts, and the conclusions as to these, derived as they have been in a great measure from English sources, are well known to our readers, we pass on to what he has to say with respect to the remedies that can be employed in order to prevent or combat the ill consequences of nosocomial *encombrement*. These, indeed, have been to some extent anticipated when treating of children's and lying-in hospitals. They may be considered under the heads of Ventilation, Tent-Hospitals, Disinfectants, and Dispersion.

Ventilation.—Professor Bouchardat, before he entered upon a thorough investigation into the matter, participated in the hopes entertained by so many, that thorough ventilation would prevent the evils of *encombrement*, on the hypothesis that these arose from miasmata emanating from the patients and transmitted by the air. General opinion being so highly favourable to this view, *savants* of the highest authority occupied much time in determining the requisites to be fulfilled by the engineers in the ventilation of the Lariboisière. This was accomplished effectually, as was the ventilation of the Beaujon, so that the nauseous hospital odours were effectually removed and a uniform temperature maintained. But, agreeable as such results seem to be, it has been found that the mortality in the ventilated hospitals has exceeded that of the other hospitals in which no such systems of ventilation existed, the advantages of these latter being most conspicuous in the surgical and obstetrical wards. It may be conjectured that the equable temperature kept up in these ventilated hospitals favours the development of the morbid ferments which give rise to hospital diseases, these ferments undergoing forcing, as in a hothouse. This explanation of the unfavourable results is very problematical; but one which is less so is the following:—This introduction into the wards of air constantly raised to a temperature of 15° C., in fact, deprives us of a therapeutical agent of great power. For a patient whose entire body is well defended against the influence of cold, the introduction of cold air into the lungs is a heroic therapeutical procedure, such continuous moderate refrigeration being one of the most certain of antiphlogistics; and Professor Bouchardat has long insisted upon these facts in his lectures. We have already seen that one of the conditions for the genesis of the ferments of puerperal fever and purulent infection is precisely the violence of the febrile action; and the moderation of this by the respiration of cold air is to oppose the development of the malady.

Tent-Hospitals.—The American experience has secured many partisans for these, and their advantages are not to be doubted. Their speedy erection on emergencies at small cost, the easy disposal of different classes of patients, and an abundant supply of fresh air, are reasons cited in explanation of their success; but, besides these, the different modes of dressing wounds that have been adopted in them should be borne in mind. A great inconvenience attendant upon tent- and shed-hospitals is the difficulty of warming them in cold winters; and many of the hospital services, such as the pharmacy, the kitchen, baths, drains, latrines, etc., are often neglected in them or inconveniently established. However, these hospitals designed beforehand, and suitably installed in well-chosen localities, may render important services to armies and to great cities during epidemic visitations.

Disinfectants.—Disinfectants of the air, as agents for combating infectious disease, have been considered of great importance from the most ancient times, and it is possible that the practices of burning aromatic woods, resins, balsams, etc., were not so ridiculous as they have been reputed to be. The investigations concerning ozone would seem to a certain extent to justify their employment. Disinfectants of the air may be arranged in four principal groups—metallic substances, porous bodies, gases, and vapours. The metallic substances employed for this purpose are the soluble salts of zinc, iron, manganese, the nitrate of lead, etc. These salts act in two modes—first, by seizing sulphuretted hydrogen, whether free or combined with ammonia; and second, by destroying, in liquids to which they are added, the vitality of the lower organisms. Other substances disinfect by reason of their porosity, of which carbon, which fixes in its pores a considerable quantity of certain gases, is a good example. In reference to the employment of gases and vapours as agents of disinfection, Professor Bouchardat passes in review the history of fumigations, as devised by Carmichael Smith, Guyton de Morveau, and others, and of which such sanguine expectations were once held. These have had to be abandoned, and these fumigations are now never employed in surgical and obstetrical wards. Their inefficiency is explained by the fact of purulent infection and puerperal fever being transmitted by inoculation. Perhaps their abandonment has been too complete as far as regards miasmatic contagious diseases. Their complete failure in preventing the propagation of yellow fever and cholera, shows, however, how little prophylactic power they possess. Still, the fumigation of wards that have been for some time occupied by patients suffering from cholera, typhus, or other affections transmissible by specific miasmata, is a practice to be recommended, and was put into force at Paris during the recent epidemics of cholera. Professor Bouchardat enumerates the various disinfectants, both of the air and of the excretions of the patients, which have been employed down to the present day, and, while admitting their utility, believes that this, with regard to many of them, has been greatly exaggerated; and he cautions us against allowing them to divert our attention from the true prophylactic, the dispersion of the patients.

Dispersion.—Neither ventilation nor the employment of disinfectants have fulfilled the expectations that were entertained of them; and the only remedy that is really sovereign is the dispersion or isolation as far as possible of patients in whom have become developed diseases capable of being transmitted to other patients in the same wards, presenting the conditions favourable to transmission. This may be accomplished in various ways. Thus, in epidemic cholera, intense centres (*foyers*) of contagion are formed, within which even the strongest succumb, and the avoidance of such, especially during the night, gives the best chance of safety. In 1849 the Salpétrière lost a fourth of its population, the *employés* being among those swept off, while the physicians who did not sleep in this infected centre were not attacked. The same remarks apply to yellow fever and typhus. Soldiers brought from the great centres of typhus contagion in the Crimea died after arriving at Marseilles and Paris, without propagating the disease to the other patients in the wards. The fatal consequences of accumulating children in children's hospitals are well known; and M. Bouchardat suggests, as regards Paris, that, after reducing the numbers to be admitted into hospitals to as low a minimum as possible by improved arrangements for treating them at home, a certain number of beds should be reserved for children in the numerous wards devoted to aged women in the hospices. Dispersion could thus be attained amidst even apparent *encombrement*, since the women could neither receive nor propagate the diseases which prove so fatal to children. As regards lying-in women, every effort is being made in Paris to substitute delivery *à domicile* for lying-in hospitals. For the women still admitted into hospitals, their dispersion in wards containing aged women, or their admission into maternities with very

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few beds, and under strict subjection to prophylactic measures, are indicated. The dispersion of patients the subjects of severe wounds is attended with very serious difficulties, the principal being the want of a sufficient number of experienced surgeons accustomed to the great operations. To meet this want, M. Bouchardat suggests that a larger number of skilful young surgeons elected by *concours* should be attached to each *bureau de bienfaisance* for a limited number of years, and with sufficient payment to induce men of undoubted value to compete for such posts. In this way a nursery of experienced operators, having attached to them experienced assistants, would be established, which would not only greatly facilitate the dispersion of surgical cases, but would maintain an admirable reserve in case of war. Where possible, these surgeons might operate on the poor *à domicile*. By thus multiplying establishments where they could be treated, the number of those resorting to the different hospitals to undergo great operations would be reduced to its minimum.

Professor Bouchardat terminates his lecture by an application of the principles laid down in it to the question of the erection of the new Hôtel-Dieu. He much regrets that the present locality should have been chosen for this purpose, not, however, on hygienic grounds, but on account of the vast expenditure that has been incurred for the removal of buildings in order to secure the necessary space, and which might have been so much more usefully employed in other directions. Even with this, several portions of the new building are most inconveniently contracted, while the space required for exercise is most seriously encroached on—a circumstance somewhat diminished in importance since the erection of the two convalescent hospitals at Vincennes and Vesinet.

But, built as it is, need the new Hôtel-Dieu prove an unhealthy hospital? Under the idea that it will, it is contemplated (after the enormous expenditure that has been incurred) to expend more than a million and a half of francs in demolishing the upper storeys of the edifice and in other modifications, so as to diminish the number of beds from 800 to 450. In M. Bouchardat's opinion, the hospital will not be rendered any more salubrious by such diminution, as the experience of the Paris hospitals during the last half-century convincingly proves that, all things being alike, more deaths do not take place in large than in small hospitals. Statistical results amply demonstrate that neither the number of the patients, defective systems of ventilation, nor the bad construction of hospitals with numerous storeys, constitute the true cause of the dangers of nosocomial *encombrement*, but the assembling together of patients belonging to the categories specified in this lecture. Infants should not be received into the new hospital; the beds for lying-in women should be few in number, and confined to a small ward where the most rigorous precautions may be observed; and there should be only a single surgical service, having a very few beds for great operations. With such precautions, the Hôtel-Dieu with its 800 beds would be the healthiest hospital in Paris. The other beds—which would, indeed, be the great bulk—might be filled with patients suffering from affections not capable of being communicated; and special services might be established for diseases of the skin, venereal diseases, diseases of the eye, and urinary diseases.

CHOLERA IN HOLLAND.

By Dr. A. M. BALLOT.

The second part of the Report on the Cholera Epidemic in Holland in 1866 and 1867 appeared very recently. The first part contained a description of the occurrence of cholera in the different communities, with a map indicating the mortality from cholera in each, and the manner in which the disease had spread over the country from certain foci, among which Rotterdam was one of the chief. This second part principally contains statistical details. In the first place, all the deaths from cholera in the epidemics from 1832 to 1867 are collected separately, as well as the total number in each community, and the proportion calculated per 1000 inhabitants, the population of the year 1869 being taken, as in my paper on impure water,(a) etc. To this second part of the Report is added a large geological map, indicating the nature of the soil and the mortality from cholera during all the epidemics in relation to the population.

The principal conclusions of the Report are these:—

If the permeability of the soil be one of the necessary conditions for the occurrence of cholera, this condition is found everywhere in our country.

The cholera lines—*sit venia verbo*—coincide with the lines of separation between alluvium and diluvium; with some few exceptions, cholera appeared in an epidemic form on the alluvium only. Zeeland, however, with an alluvial soil, is generally free from cholera. It must be remarked that the drinking-water is not taken from the soil. In the north-east part of Holland and West Friesland there appeared only a few cases of cholera, although the soil is also alluvial. The drinking-water used in these provinces is chiefly rain-water. Is the alluvial soil, then, a condition for the epidemic distribution of cholera? It appears that those communities on the alluvium which live in the fens are the most severely attacked by cholera. In general, cholera was more severe in the low-lying parts of the communities. Often the level of the water (does this mean the subsoil water?) was low, often high. These are the principal conclusions; against some of which I must protest. However meritorious the work may be, the conclusions of the Report are not in accordance with the facts: there is something illogical in them, which arises from a wish to discover a connexion between cholera and alluvium. It is true that on the diluvium the occurrence of cholera was not frequent, but cholera did appear there even in an epidemic form; on the alluvium, on the contrary, nearly the whole province of Zeeland and large districts in other provinces remained free from cholera. On fen (peat) the cholera appeared the most.

The map is a confirmation of my paper cited above,(b) and that on water-supply in Holland,(c) and this conclusion would have been more logical and in accordance with the facts. Places where there is no other drinkable water than rain-water are not affected by cholera; the single cases occurring there are imported.(d) In places where rain-water is generally drunk, the disease is by far less violent; the whole import is in accordance with these theses. There is a great difference between places where rain-water is generally drunk, and where no water from the soil or rivers *can* be drunk.

In various papers which have lately appeared on Asiatic cholera, you will find it stated that those places where intermittent fevers are endemic are also selected by cholera. In our country Zeeland is the seat *par excellence* of intermittent fever, and there, with the exception of a few places where other drinking-water than rain-water can be got, there is no cholera.

Unhappily till now the fæcal matters are generally permitted to soak into the soil, or into the rivers and canals. Is it wonderful, then, that on the alluvium, and more so on fen, where the drinking-water is taken from the soil, or the rivers and canals, cholera occurs in an epidemic form when once the disease is imported?

But to do justice to the Report, I must say that it is only a small fault where the conclusions are not in strict accordance with the facts. The great merit of the Report lies in the truthfulness with which the facts are related, and the clearness with which they are shown in a statistical form, and on a large and beautifully executed map.

Rotterdam.

(a) "On Impure Water as a Cause of the Successive Mortality from Cholera in Holland during the five Epidemic Visitations since 1832."—*Medical Times and Gazette*, May 1, 1869.

(b) *Loc. cit.*
(c) *Medical Times and Gazette*, June 12, 1869.
(d) *Loc. cit.*, page 463.

FROM ABROAD.

Hypodermic Injection of Ergotin in Uterine Fibroid.

At a meeting of the Greifswald Medical Society (reported in the *Berlin Klin. Woch.* for January 12), Dr. Bengelsdorf read a paper upon "The Hypodermic Injection of Ergetin in Uterine Fibroid Tumours." His attention was drawn to the subject by a remarkable paper by Professor Hildebrandt, of Königsberg (*Medical Times and Gazette*, July 27, 1872, p. 101); in which he related that while combating the metrorrhagia which accompanied uterine fibroid by injection of ergotin, he found that not only the hæmorrhage disappeared, but the tumour likewise.

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In the present communication, Dr. Bengelsdorf briefly refers to the four cases of uterine fibroma in which he has tried this procedure. In two of these, twenty-one injections were practised without any effect whatever being produced. One of the patients was sixty-one years of age, and menstruation had ceased for twelve years; and the other was forty-nine years old, and had ceased menstruating for a year. The third patient was thirty-seven years old, and, having a fibroma at the anterior wall of the uterus, she also suffered from copious and prolonged menstrual bleeding. As the result of nineteen injections, the metrorrhagia became greatly diminished, but the tumour was not perceptibly less, although it was more movable, while great vesical irritation, which it had caused by pressure on the neck of the bladder, ceased.

In the fourth case there was a fibroma of the cervix the size of a hen's egg, the entire uterus being very sensitive, and the pain on defæcation excessive. A true menorrhagia recurred every seventeenth or nineteenth day. Up to the time of the report, sixteen injections had been administered with little effect upon the neoplasm; but the general condition of the uterus was changed to a remarkable degree. The painful condition of the organ had very greatly diminished, as had also the induration and elongation of the cervical portion of the cervix. The change was the more remarkable, as owing to the distance of the patient's residence the injections could only be made at long intervals.

From the results of these cases Dr. Bengelsdorf is of opinion that the eulogium passed on the remedy by Prof. Hildebrandt requires some restriction, believing that fibromata which have appeared after the cessation of menstruation are not acted upon by the ergotin. The explanation of this is, that as the ergotin acts by contracting the bloodvessels supplying the neoplasm, inducing, so to say, its atrophy, it does not operate in those cases in which the deficient vascularisation of the tumour and the poverty of its cell-life give it more resemblance to cicatricial tissue. Nor in the last two cases, in which the injections acted beneficially, although not on the tumour itself, did they do so so rapidly as in Prof. Hildebrandt's cases, which may perhaps be due to the fact that they were less numerous and not performed at such short intervals. But in chronic metritis the author has, encouraged by his success in the fourth case, frequently employed the injection in young women with success, the enlarged and painful condition of the organ, and the accompanying uterine catarrh, being much more speedily relieved than when the secale cornutum is given internally.

The same proportions were used as by Prof. Hildebrandt—viz., three parts of watery extract of secale cornutum to seven parts of water and seven of glycerine. In this mixture the ergot is only suspended, and Dr. Bengelsdorf sees in this an explanation of the pain and sometimes phlegmonous inflammation (without suppuration) which result from the injections. Indurated tumefactions continue for a week or more; and experiments on rabbits show that these little swellings contain some of the ergot in substance. The inconvenience can be to some extent diminished by inserting the canula somewhat deeper, and diffusing the injected substance through the cellular tissue by manipulation.

Complete Removal of the Larynx.

Professor Billroth on December 31 removed the entire larynx with the epiglottis, an operation never before ventured upon, although Dr. Czerny, by a careful series of experiments performed in 1870, had shown that it was anatomically and physiologically practicable and justifiable. Professor Billroth intends to publish an extended account of the case after its complete issue has been determined; and in the meantime the following particulars have appeared in the *Wiener Med. Wochenschrift* of January 10:—The operation was resorted to for the purpose of prolonging the life of a man forty years of age, who was suffering from carcinomatous growths in the larynx. Dr. Störk had several times relieved him from impending suffocation by the removal of portions of these growths with the aid of the laryngoscope; but at the beginning of November the growths had extended so far within the larynx that their removal in this manner was no longer possible. Professor Billroth therefore performed Balassa's operation of "laryngo-fissure," and, having cleared out the interior of the larynx, applied liquor ferri to this. The result of this operation, which was remarkably well borne, was at first most successful, but by the middle of December new growths appeared, and by the end of the month fearful paroxysms of suffocation again recurred, rendering the retention of a canula necessary. Here, according to ordinary rules, therapeutical interference would cease, the patient being rendered able to breathe perhaps for some months longer, until the growths had rendered the continuance of life impossible. When Professor Billroth, on December 31, determined to make one more attempt to aid as far as possible the patient, who was yet a strong man, he intended to repeat the operation of laryngo-fissure. Finding, however, with Dr. Störk, that the entire larynx was filled with cancerous masses, and that the vocal cords were totally destroyed, and believing that the projected operation could only be incompletely executed, he determined upon the more radical procedure of removing the entire larynx, encouraged by the fact that the disease was limited to the larynx, the neighbouring glands not having as yet become affected. The patient bore the operation very well, and breathed freely and directly from the trachea, in which a canula was placed. There was but little fever, and that of short duration; and at the date of this communication the wound had contracted greatly, and was rapidly healing. Drs. Billroth and Czerny are now engaged in devising the construction and application of an artificial caoutchouc larynx, which will restore to the patient the power of speech.

Hypodermic Injection of Atropia in Poisoning by Opium.

In the *Philadelphia Medical Times* for November 29, Dr. Schell relates an interesting case of poisoning by opium, treated by the hypodermic injection of the sulphate of atropia. He was called to a young woman at 7.30 p.m. on November 8, who at six o'clock had swallowed an ounce and a half of laudanum. He found her unconscious, with cold extremities and relaxed muscles; the pulse was 60 and full, but not strong; respiration snoring; face dusky; pupils immoveable, and about one thirty-second of an inch in diameter; cornea insensible. A very imperfect attempt at abstracting the contents of the stomach was made, and three emetics were given at intervals of twenty minutes without producing any effect. Thirty drops of tincture of belladonna were also administered every fifteen minutes until 10.15, when, on attempting to give her a dose of this, she fell into a state of complete collapse, the pulse being barely perceptible, and respiration ceasing. Artificial respiration by Hall's method was resorted to, and in about a quarter of an hour afterwards the forty-eighth of a grain of sulphate of atropia was injected under the skin of the arm. Shortly afterwards a natural inspiration took place, and a pulse of 108 could be felt. She vomited five or six ounces of fluid, and the pupils dilated to one-sixteenth of an inch. In twenty minutes alarming symptoms again appeared, and a second injection was made, the pulse rising again, and abundant vomiting occurring. She was semi-conscious, asking for water. In half an hour the coma returned, and a third injection was made. From this time her improvement continued permanent, so that next morning she seemed quite well. A peculiar feature of the case was a divergence of the optic axes and double vision.

It will be remarked that the stomach first responded to the action of the emetics about two hours after they had been taken, and in a few minutes after the first hypodermic injection—freely after the second. It is very doubtful whether any of the tincture of belladonna was absorbed during the lethargic state of the stomach, and most of the three drachms given was probably eventually vomited. Drs. McGee and Walker also relate cases in which vomiting, which did not ensue upon the administration of emetics, came on speedily after hypodermic injection of atropia or of extract of belladonna. Artificial respiration in the present case—continued during twenty-five or thirty minutes—induced no action of the respiratory muscles; but the breathing became regular and natural soon after the administration of the atropia.

"I should conclude, therefore," says Dr. Schell, "that, when the patient is in a comatose condition when first seen, it would be better to administer one-sixtieth to one-thirtieth of a grain of atropia subcutaneously at once, and give an emetic as quickly as possible thereafter; and it seems probable that the action of the emetic may be aided by rolling the patient. If, on the contrary, the mustard or sulphate of zinc is allowed to remain in the stomach for an hour or two, it sets up a degree of irritation, or even inflammation, which often lasts several days, and requires special treatment for its relief. It would seem, too, that there is no advantage in pushing the atropia until the pupils are widely dilated, but that it is sufficient to give enough to stimulate the nervous centres whence the

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pneumogastric springs, to the degree of action necessary to keep the heart and lungs in motion until the system can rid itself of the poison."

Dr. Weir Mitchell on Neurotomy.

In the number of the same journal for December 6, Dr. Weir Mitchell has a short paper concerning the contradictory opinions which prevail with respect to neurotomy.

"The state of medical opinion as to the results of nerve-sections has," he says, "undergone some strange reversals from time to time, until of late, owing chiefly to imperfect observations on the part of certain eminent surgeons, we are told that a large nerve can reunite within a few days after having been divided, and can thus early reassume its lost functions. Upon this point, as has often happened, the physiologists and clinicians were on opposite sides. Nerve-sections in the laboratory, even in young animals, gave no such results as the presence of feeling a few hours after the division of a nerve. It is most interesting to observe what occasioned this conflict of opinion, and to see how both sides were somewhat astray, and how the truth—a most useful and practical one—has at last come out."

Until 1864 it was believed that when a nerve had been divided, the region to which it was distributed would lose all sense of feeling, and certain muscles would act no longer until after many months, when, in fortunate cases, the nerve-ends having reunited, the sensory and motor functions became wholly or partially restored. In that year, Laugier, having brought the ends of a divided nerve together by suture, observed in the parts involved some feeling and motion on the very same day. Equally strange results were obtained by Nélaton and Paget; but Verneuil soon afterwards pointed out that motion and sensation had been observed in cases in which post-mortem examination proved no union had taken place. Letiévant, in 1867, found that after the division of the median nerve in man, both feeling and motion remained where, according to ordinary notions, none should have been found. A careful study, however, showed that each muscle fed by the cut nerve was really palsied, and that the motions seen were due to muscles supplied by the ulna and radial. The presence of feeling was more puzzling, this not being lost (though greatly lessened) within the median area, except in a very limited space. This state of things prevailing within a few hours after the section of the nerve could not possibly be attributed to regeneration; and the explanation is that there are branches from the ulnar which enter the median below the point of section, and also in the intimate plexus it forms with other nerves at the finger-ends.

"The anatomists are in part responsible for the clinical difficulty. Take, for instance, Flower's Atlas, or most of the Anatomies, and you will see that the median innervates this area, and the ulna that, and so on; while, in truth, the whole surface-anatomy is a fiction, and has to be studied anew by closer dissections and by utilising such nerve sections as are made in man. In fact, I believe it will be found that the regions of skin made sensitive by but one nerve-branch are very limited, and that throughout the whole surface, and not merely at the extremities, division of several nerve-stems will be needed to extinguish feeling of all form in any one part of the skin. Strange as it may seem, there is yet room for a careful monograph on the anastomoses of the main nerves."

A remarkable corroboration of these views was observed in a case in which Dr. Maury divided the whole brachial plexus of the neck in a man. At first the posterior and inner cords were cut, but the sense of touch in the palm and dorsal surface of the hand, forearm, and arm, and on the inner surface of the arm, still partially remained until the external cord was also divided. Cases observed by the author and by Letiévant show also that there is this "lapping over" of nerve territories in the face as well as the extremities. Careful study of Letiévant's facts ("Sections Nerveuses," 1873), and of a case of his own which he is about to publish, has also shown Dr. Mitchell that the nerve-distribution of the hand is liable to considerable variation; and he thinks that careful maps of the regions in which feeling is lost after nerve-section, made by observers as careful as Letiévant, are greatly needed. Not only are the ordinary distributions required to be known, but the varieties of this; "for while as yet nerve-supply to muscles seems to be definite and constant, that to the skin-spaces appears to vary strangely and frequently." The failure of many of the nerve-sections which have been made for epilepsy or tetanus of eccentric origin is probably due to the hitherto unsuspected anastomising branches of undivided nerves.

Dr. Mitchell states that he has seen brilliant success and as remarkable failure attend neurotomy in local spasm as blepharo-spasm. In neuralgia he has recommended it when this has been of traumatic origin; but he has never in a vast experience divided a nerve in ordinary neuralgia.

"As regards the influence of nerve-section on the thermal conditions of the limb, the clinical observers tell us that there is always a fall of temperature, while the physiologists say that there is a rise of the thermometer. But the latter observers experimented immediately after section—the others, as a rule, only after weeks or months; so that I felt free to predict that when the clinician would put himself in the same position as the physiologist, Nature would make him the same answer. And this is just what my own cases have taught me: first the temperature rises, and then, after a time, it falls. These constant conflicts of opinion always end in this fashion. Somewhere there has been a defect of observation, or else the standpoint whence the fact was seen has been different; and so the facts have been made to seem to vary. The case of neurotomy of the brachial plexus by Sands and Seguin ('Traumatic Brachial Neuralgia,' New York, 1873) is, I suspect, the first example of this operation. It is admirably related, with scarcely any defects, which cannot be said of the European cases of neural section. In fact, as I have already said, the horrible confusion as to the results of neurotomy which has so long embarrassed us is due to observations so clumsy and imperfect that they cannot be too severely criticised."

ARMY MEDICAL SERVICE.

The following is a list of candidates (in order of merit) for the Army Medical Service who were successful at the competitive examinations held at London in August, 1873, and at Netley in February, 1874, after having passed through a course at the Army Medical School at Netley. (Maximum number of marks, 6900.)

	No. of Marks.		No. of Marks.
1. Langridge, G.T.(a)	5243	6. Gubbins, W. L.	4370
2. Fowler, B. W.	5209	7. Thomsett, R. G.	4190
3. Webb, W. E.	4690	8. McQuaid, P. J.	4173
4. Mapleton, R. W.	4650	9. Spencer, F. H.	3836
5. Wood, O. G.	4375	10. Ring, J.	3561

(a) Gained the Herbert Prize.

NAVAL MEDICAL SERVICE.

The following is a list of naval medical candidates (in order of merit) who were successful in the competitive examinations held at London in August, 1873, and at Netley in February, 1874, after having passed through a course at the Army Medical School at Netley, and who will receive commissions as surgeons in the Royal Navy. (Maximum number of marks, 6900.)

	No. of Marks.		No. of Marks.
1. Hewett, F. C. C.	4317	4. Cooke, G.	3609
2. Preston, T. J.	4173	5. Pearson, W.	3554
3. Bedford, R.	3881	6. Vasey, C. L.	3140

Chloral as a Preservative Agent.—At the meeting of the Société de Biologie on the 7th instant, M. Cuvellier laid before it the carcase of a dog which, after fifty-five days, exhibited no trace of putrefaction, although it had been kept in a laboratory in which there was a fire. The dog had been injected by the carotid with a solution of 100 grammes of chloral in a litre of water. The brain, placed in the same mixture, was also well preserved, so that it could be easily demonstrated not having undergone the slightest appreciable alteration.

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THE WEBB FUND.

The following contributions have been received by Mr. Augustus Churchill, the Treasurer, to the 11th inst.:—

	£	s.	d.
Dr. Peregrine	5	5	0
Sir William Gull	10	10	0
Dr. R. Norton	1	1	0
A Friend	3	3	0
J. W....	5	0	0
Mr. Andrew Murray ...	10	0	0
R. R. R.	5	0	0
Mr. W. F. Teevan... ...	2	2	0
Dr. Burney Yeo	2	2	0
Mr. R. Stocker	5	0	0
Dr. C. B. Sewell	10	10	0
Mr. Barnard Holt... ...	10	10	0
Mr. W. Hopkinson ...	5	0	0
Mr. J. S. P. Pechey ...	1	1	0
Mr. F. Hurt...	1	1	0
Mr. J. Aste...	2	2	0
Mr. E. Sharpe	2	2	0
Mr. S. Taylor	2	2	0
Mr. C. Hopkinson... ...	10	10	0
Mr. W. Cattlin	5	5	0
Dr. Jopp	10	0	0
A Friend	5	0	0
S. E. M.	5	5	0
Miss Salt	5	0	0
A Friend	5	5	0
A Friend	5	0	0
Dr. Semple	5	5	0
Mr. G. Peabody Russell ...	5	5	0
Mr. Jacques Blumenthal...	5	0	0
Rev. G. A. Whitaker ...	1	1	0
A Friend	3	0	0
A Friend	1	0	0
Messrs. R. & J. Hewetson	2	2	0
Mr. C. D. Hollins	2	0	0
Captain Cahill	1	1	0
Mr. James Coates	5	5	0
Mr. Charles Gatty	5	0	0
Baron Schröder	5	5	0
Mr. John Hartley	5	0	0
Dr. Jeffson	2	2	0
Mr. E. H. Bradley... ...	3	3	0
Mr. B. Shillitoe	3	3	0
	189	8	0
Amount previously acknowledged ...	1011	18	6
Total	£1201	6	6

REVIEWS.

Journal of the Scottish Meteorological Society, September quarter 1873: *with Tables for quarter ending June* 30, 1873. William Blackwood and Sons, Edinburgh and London.

We have received a copy of the *Journal* containing a report of the proceedings of the above Society for the period indicated. Amongst its contents is a very interesting paper communicated by Professor Mohn, of Christiania, Norway, giving the result of his observations "On Certain Effects of Currents on the Temperature of the Sea and Air," and a treatise by Dr. Moffat, F.G.S., "On Atmospheric Ozone and its Sources." There is also, as usual, an abstract of meteorological observations compiled from the records of the Society's stations in Scotland, with notes of the prevailing weather at each, state of vegetation, etc., made up for the quarter ending June 30, 1873.

Lessons in Laryngoscopy, including Rhinoscopy and the Diagnosis and Treatment of Diseases of the Throat. By Dr. Prosser James, M.D., M.R.C.P., etc. London: Baillière and Co. 1873.

This little book has both its good and its bad points, though we are bound to admit that the former predominate. The author describes the method of using the laryngoscope most carefully, and points out with great clearness all the precautions to be observed in order to obtain a clear view of the parts. The advice given with regard to commencing the study of laryngoscopy, and also those on autolaryngoscopy, are excellent, and will be found useful both by students and practitioners. Rhinoscopy is treated of very fully, and few better accounts have been written of that branch of the subject. The chapters on treatment contain a summary of the most recent methods employed for the relief or cure of the various affections of the larynx, and the instruments used for the removal of growths and for the application of remedies are illustrated by numerous plates.

We notice that Dr. James is an advocate for the more extended use of powders for insufflation into the larynx. We know personally that they are much used by Schrötter and Störck, of Vienna, to prepare their patients for the laryngeal brush; and our own observations would lead us to believe that insufflation should be more practised for that if for no other reason. The chapter discussing the claims of different men to the invention of the laryngoscope seems rather out of place in a work which professes to teach the art of laryngoscopy; and Signor Garcia's paper "On the Human Voice" might well have been omitted or abbreviated, as its main facts are to be found in the text-books of physiology. Many of the woodcuts in the book look as if their blocks had seen much previous use, and the coloured plates are rather rough, and one or two seem not quite accurate. For example, we question whether the vocal cords in Plate i., Fig. 1, are not too white; and in Plate iii., Fig. 2, the serrated epiglottis reminds one rather of a syphilitic than a tubercular ulceration; and what is described as an ulcer on the left cord more resembles a fleshy growth. As the derivations of many of the anatomical and technical terms used are given in Greek characters, they might have been more uniformly provided with accents; and there are some sad blunders in the titles of some German works at page 110 and elsewhere. A chapter dealing more minutely with the differential diagnosis of diseases of the larynx would is another edition, add greatly to the value of the work which in already likely to prove very useful.

The Climate of Arcachon: a Treatise on its Influence on certain Diseases of the Chest; with Notes on the South of France as a Winter Resort. By Dr. G. Hameau, Médecin-Inspecteur des Bains de Mer d'Arcachon, etc. Translated from the French by the Rev. S. Radcliff, A.B. Trin. Coll. Dub., English Chaplain at Arcachon. London: Henry S. King and Co., Cornhill and Paternoster-row. 1874.

This little work would appear to have been written with the object of introducing Arcachon to the notice of the public, as a health resort for patients suffering from phthisis, chronic bronchitis, and asthma. Dr. Hameau claims for it special qualifications on the grounds of its pine forests, the balsamic emanations from which he assumes to have a salutary influence on the lungs, when breathed for any time in combination with the neighbouring sea-air. It is, remarks Dr. Hameau, worthy of comment that consumption is almost unknown in the families of the *resiniers*, whose profession is transmitted from father to son; and this fact in the first instance decided some French physicians to avail themselves of the resinous air of the locality as a therapeutic agent. The history of several cases of phthisis and chronic bronchitis is given, divided into three classes of cured, ameliorated, and fatal; and while the advantages of the locality are very fairly stated, Dr. Hameau does not seek to elevate Arcachon as a health resort at the expense of other places in the South of France of a similar character. Indeed, throughout his very frank treatise, Dr. Hameau seems to have been actuated by a similar spirit of tolerance to that which he himself attributes to others at page 110 of the present book, wherein he states, in speaking of Nice, "I am happy to say here, that the books published by the physicians who have most zealously occupied themselves about the climate of Nice are inspired by a sentiment of good faith and scientific honesty, which is not always met with in books of this kind."

The summary of the remarks on Arcachon is condensed into the following facts:—Its climate is sedative to the nervous system; it places certain consumptives in a medium favourable to the cure of their diseases,—always in some degree to an amelioration of their symptoms; it favours the cure of chronic bronchitis, and is most suitable in cases of asthma; but for persons of a torpid, lymphatic temperament, suffering from diseases of the chest, it is not recommended.

Appended are some short and instructive notes on the winter resorts for invalids of Nice, Mentone, Villafranca, Cannes, and Hyères; and the volume is brought to a conclusion with certain statistics and meteorological observations collected at Arcachon and Bordeaux during the winter months.

GENERAL CORRESPONDENCE.

SCHOOL DIETARIES.

Letter from Dr. E. B. Gray.

[To the Editor of the Medical Times and Gazette.]

Sir,—Medical men, who may have been educated at large schools or have since seen much of schools in their professional capacity, will have read with great interest your remarks on the above subject in a recent number of the *Medical Times and Gazette*. It would be well if those remarks could fall into the hands of every schoolmaster and parent. Beyond doubt, even in the present day the dietaries of many schools fall far short of the physiological needs of growing boys and girls; and the sooner such dietaries are reconstructed by the light of medical knowledge, the better.

With regard to breakfast; bread and butter with poor tea or coffee is certainly a sorry meal for a growing boy to begin a good day's work on. He should have, in addition, eggs, or bacon, or broiled meat—sometimes one, sometimes the other;

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and every boy, if he likes, should be allowed to have a basin of bread and milk, or milk porridge, instead of tea or coffee.

With breakfast at eight, a working boy generally wants, and if he wants ought to have, something about eleven. Nothing could be better than a glass of milk with a bit of bread or a "captain's" biscuit. If he cannot get a mouthful of some such wholesome food, he is pretty sure to go and eat some pernicious trash instead.

At dinner the quality and quantity of meat are much less often a matter of complaint than they were twenty years ago; but indifferent cooking and hurry of the meal are still too common. Bad carving in most schools the writer has known is the rule rather than the exception. Much of this important work is done by under-masters, men-servants, or senior boys. The result is sometimes simply nauseating. To say the least, the joints rarely get carved in tempting, clean-cut slices, as at a gentleman's table. To a hearty eater this makes little difference, but a fastidious boy when so served day after day will well-nigh starve in the midst of plenty.

School dinners too often lack the variety which they easily might and ought to have. To suit different tastes two different sorts of meat, or at least meat cooked in two different forms, should be on table every day. Why not oftener vary the round of joints—roast, boiled, hot, cold—with simple *entrées* or made-dishes of various sorts (none the less wholesome and nutritious for being "made")? Many a boy will eat heartily of these, who cannot relish solid joints. In schools where the diet is not judiciously varied, as well as abundant, there will always be some few delicate boys growing up underfed for months together, with at least temporary hurt (if nothing worse) to physical development and general health.

Nearly all boys are fond of well-cooked, well-sweetened fruit puddings or tarts, and these should seldom fail to form part of their daily dinner. Their instinctive craving for these things is simply the expression of the physiological need of sugar and the vegetable acids for healthy nutrition. Most boys dislike the crude fat of beef or mutton, and it is barbarous to try to make them eat it; but this same fat embodied in a well-cooked pastry or pudding-crust they are just as fond of. The writer knows a school where plain ripe fruits (apples, oranges, etc., according to season) are frequently given as a second course instead of puddings. They are always much welcomed by the boys. These adjuncts to the dinner are most assuredly, to growing boys, necessities, not luxuries. It is the natural craving after them which makes them spend their pocket-money at the pastry-cook's or the school "shop." The latter institution is in every way objectionable. The authorising of it by any master is simply a tacit admission that the food he gives his boys does not suffice to satisfy all their legitimate cravings.

As to beer, if given at all, it ought to be good; but with healthy boys, who are really well fed, is it either necessary or desirable? The writer (not himself an abstainer) firmly believes it is not. This belief rests (1) on the remembrance of his own school-days. Other boys like himself were certainly none the better for their dinner beer: it only made them heavy and lazy for the next hour or two. (2) On long observation of a school of some sixty boys, all of whom (with special exceptions on medical grounds) drink nothing but water at dinner, the health, strength, and spirits of these boys leave nothing to be desired. It is a treat to see how they eat, how they work, and (of no less consequence) how they play.

As with breakfast, so with tea. A healthy boy who works and plays pretty hard wants something more than tea, bread, and butter. A little green stuff—such as watercress, lettuce, radish, etc., according to season—is most welcome to him at this meal.

For supper, bread and milk, or milk porridge, should be allowed, when preferred, in place of the beer, bread, and cheese usually given.

Changes of the nature above suggested are too slowly making their way in upper-class schools. Masters oppose them—some from the resulting curtailment of their gains; others from real ignorance or want of appreciation of the large and varied supply of food needed by boys if they are to grow into strong, healthy men. Too often the matter is pooh-poohed by parents themselves. "If so-and-so was good enough for their school-days, why should their children need better?" The answer is this: that the generality of school dietaries of thirty years back were *not* good enough. They sufficed, it is true, for those who were tough enough to thrive upon them or rich enough to supplement them; but those who were neither tough nor rich fared badly. There can be no doubt that these meagre, monotonous dietaries played at least an active part in bringing about many an early death, many a puny or sickly manhood.

I am, &c.,

Oxford. E. B. Gray.

REPORTS OF SOCIETIES.

ASSOCIATION OF MEDICAL OFFICERS OF HEALTH.

SATURDAY, JANUARY 17.

Dr. HARDWICKE in the Chair.

Dr. HARDWICKE stated that Dr. Letheby was suffering from indisposition, which rendered it necessary that he should spend the winter in a warm climate. He had accordingly started for Egypt, and would, it was expected, return about the end of March. Several members expressed regret at his absence, and hoped he would return completely restored to health.

The business of the evening was then proceeded with, and Dr. Armistead, and Dr. Thomas, of Llanelly, were elected Associates. Dr. Jacob was elected as an extra-metropolitan member.

Dr. STEVENSON, who acted as secretary in the absence of Dr. Vinen, read a letter from Mr. Holland, who asked to be allowed to read a paper giving his views upon the subject of cremation.

After some discussion, it was decided that the Secretary should write to Mr. Holland to the effect that the Association would be pleased to hear his views upon the subject from a sanitary point of view.

Dr. DUDFIELD made a suggestion that the Council should consider some means of adding to the value of the reports of the Association, by adopting some method of preparing statistical reports of members. He said his own ideas upon the subject were in a crude state; he merely suggested discussion.

It was proposed that the question of slaughter-houses should be again brought before the authorities by the Association, with a view of following up what had already been done. It was feared the abolition of slaughter-houses would not be secured, though the removal of these places from crowded neighbourhoods would be very beneficial.

Dr. TIDY then made a few remarks upon his paper "On the Adulteration of Butter." He had been called upon to say something on the subject at very short notice, having had, in fact, only from the previous Wednesday night for the jotting down of a few facts. He asked the meeting to excuse any want of methodical arrangement. He commenced with a few practical remarks upon churning. The effect produced by this process is to break up the membranous envelope of the cells containing the fatty portion of the cream. It has been found by experience that butter is most rapidly produced at a temperature of from 50° to 55° F. Most churns are provided with an outside vessel into which warm water is poured in cold weather, and cold water in hot weather, to keep the temperature as near 50° as possible. A great deal depends upon the speed. If the process of churning proceeds too slowly, the butter is tasteless; if too great a speed is used, it is soft and frothy. Butter is generally produced from cream which has stood in open pans for a few days, but fresh cream is sometimes used, also entire milk. The best temperature for the churning of entire milk is about 60°. More butter is produced from entire milk than from cream, but in consequence of the large quantity of butter-milk yielded, the size of the vessels is necessarily increased, involving extra labour, so that this means of obtaining butter has not been generally adopted. Milk has been found to yield from 4½ to 6 per cent. of butter. A good practical farmer informed Dr. Tidy that he had found the lowest 3 per cent., and the highest 6½ per cent., giving an average of 5½ per cent. A cow produces about one pound of butter a day. After the process of churning is complete, the butter is washed to get rid of the whey, a fair average being about 4 per cent. Dr. Tidy said butter is a complex body, but its chemical composition did not so much concern us as the means of detecting adulteration. The result of many experiments had gone to prove that stearin, olein, and palmitin, though present in butter, are in such small proportions as to be practically *nil*. With regard to adulteration by mixing with other fatty matters, he had tried without

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success to mix butter with lard, suet, dripping, etc., when in a melted state, and he believed such a mixture to be nearly or quite impossible. As any mixture of other fats must be made while the butter and added substances are cold, a mottled appearance may always be regarded as a possible sign of adulteration. Water might, and often does, become a very serious adulteration. The method of determining the proportion of water in a sample is to place 100 grains of butter in a capsule and expose it to a heat of 220° for several hours, the loss in weight being the proportion of water. An examination of twelve samples of undoubtedly good butter gave a range of from 5 to 8 per cent. of water. It is also incorporated by the butterman, by beating and other manipulations; in some cases as much as 28 per cent. had been added. Analysis of 130 samples purchased at different shops gave the following proportions of water:—five, 25 per cent.; seven, 7 to 9 per cent.; twenty-one, 9 to 10 per cent.; thirty-four, 10 to 13 per cent.; forty-two, 14 to 17 per cent.; seventeen, 18 to 24 per cent.; and four, 25 per cent. and over. When called upon to give certificates for production before a magistrate, he made a rule of stating the quantity of water when above 10 per cent. Salt he detected by burning the remainder of the 100 grains of butter, and weighing the residue. In twelve samples the average was 5·2 per cent. The result of twenty-seven experiments was—in two, under 3 per cent.; two, between 3 and 4 per cent.; three, between 4 and 5 per cent.; four, between 5 and 6 per cent.; twelve, between 6 and 7 per cent.; and one, between 7 and 8 per cent. Over 7 per cent. he considered an excessive amount of salt. In the cases of both salt and water, the proportions are always stated on the certificate, and the magistrate left to draw his own conclusions. The melting-point he had found an important means of testing the purity of samples of butter. He fills a test-tube about three parts full of butter, and adds small quantities of boiling water, carefully noting, first, the melting, then, as it cools, the solidifying point. Ten samples of good butter gave an average melting-point of 75°, and solidifying-point of 63°. Four samples of beef dripping gave an average of 52½° as the solidifying-point, and 79° as the melting-point; four of lard, 75° and 82°. A great deal of information might thus be gained from the careful study of the melting-points. Taste, smell, and appearance also afford a valuable, because ready, means of detecting adulteration. First, as regards taste. The buttery taste is very persistent, and may be detected when only one part of pure butter is present in fifty. When placed upon the tongue, pure butter melts quickly, and leaves it perfectly smooth. If adulterated, the butter melts more slowly, but always before the adulterant, the peculiar taste of which is invariably noticed towards the end of the experiment. Other fats give the specimen a granular taste, leaving a slight roughness on the tongue. The peculiar and characteristic odour of butter had been found to prevail even when the samples had been very largely diluted. It is well not to attempt too much smelling and tasting in one day, as these senses soon become tired and not to be trusted to. Perfectly pure butter is generally of a rich yellow colour and uniform, not having a mottled or streaky appearance. A clean knife passed rapidly over pure butter does not produce either of these conditions. Impure butter is generally pale and marbled, while streaky butter should always be looked upon with suspicion. He had melted a quantity of from 500 to 700 grains of butter in a beaker with distilled water. When hot it had a fine cellular appearance; cold, it formed a soft solid, of uniform consistence. The upper surface was always more transparent than the lower, and beside perfectly smooth; the under surface being more or less irregular. This should always be carefully noted. Another characteristic of pure butter is its tendency to participate in the slightest movement of the water in the beaker in which it has been melted and allowed to cool. Impure butter does not show this peculiarity—seeming to stick to the side of the vessel. When emptied out on to a sheet of blotting-paper, it falls as a wet mass, with a regular outline, and greases the whole of the paper. Adulterated specimens form irregular cakes, and leave the paper drier, and not so much greased. Another means of detecting adulteration by the melting-point was mentioned. Twenty grains of butter are placed in a test-tube with two drachms of ether, and kept at a temperature of 65° (the melting-point of butter) for ten hours, after which the ethereal solution of fat is filtered, and the filtrate carefully evaporated to dryness in the water-bath, and weighed. This gives the percentage of fat. The percentage of water, ash, and fat added together, and then subtracted from 100, gives the percentage of organic matter, not fat, in the butter. This in pure butter is always small. Ten samples were experimented with, the result being no deposit in eight cases, and only a very small deposit in the other two. With four specimens of lard the deposit averaged 3 per cent., and five of beef and mutton suet gave a mean of 5·7 per cent. Examined with the microscope, pure butter had no polarising action, and no crystals could be detected, while crystals of stearine were found in abundance in some specimens in which lard was used as an adulterant. The analysis of fatty matters would be found very difficult, and perfection could only be arrived at by constant practice.

The Chairman thanked Dr. Tidy for his very interesting and practical paper, and said the subject was of great importance.

In answer to a question, Dr. Tidy stated that the estimation of the quantity of fatty matter, not butter-fat, was always a matter of considerable difficulty.

In the discussion which followed, the Chairman asked if Dr. Tidy had tried the potash solution, which changes the fats into soap, for determining the proportion of fatty matter.

When in doubt, Dr. Tidy had done so with good result. Many samples of butter at 1s. per pound had contained scarcely any butter, and some contained none.

Dr. Bernays said he had found the melting-point rather different from that stated by Dr Tidy. He had always used a small tube, and had found the result of many experiments to be within half a degree of each other.

Dr. Tidy said he generally used a large tube; this might perhaps account for the difference. He stirred the butter with a glass rod, and carefully took the temperature the moment melting took place. It would, however, be better to trust to the solidifying point, about which he was quite clear, all the samples of genuine butter examined by him having become solid at a temperature of 63°.

Dr. Bernays was also certain upon this point. He had found the ether process give good results, but, on account of the time occupied, it was not practicable, considering the low price at which the work of public analysts was done. He thought analysts should come to some agreement as to the amount to be charged, the remuneration at present being in many cases wretchedly insufficient if the best and most complete means were in all cases used. If a proper price was paid we should not hear of so many incomplete analyses. He believed many very bad specimens of butter were occasionally to be found. One sample which had come under his notice contained 5 per cent. of potatoes. With regard to salt, the addition of any considerable quantity would render the article entirely unpalatable. Some butter at 1s. per pound had been found to contain 22 per cent. of salt and water, thus making it a very dear article even at that price.

The Chairman asked if it was a fact that as much as 28 per cent. of water could be worked in by the butterman.

Dr. Tidy had no doubt about it, and had often seen the operation in progress.

Dr. Tripe observed that the microscopical examination of some specimens of butter, when cold, under polarised light failed to show the presence of crystals. These same samples, however, when heated showed them in abundance.

In answer to a question whether they presented any special character, Dr. Tripe said they were radiated from the centre.

Dr. Tidy (in answer to the Chairman) said, about the percentage of curd, he considered a fair average 3½ per cent.

Dr. Stevenson thanked Dr. Tidy for his paper, but, without any intention of depreciating the value of the information given, he regretted they had not heard of any definite chemical tests. Most of those mentioned were empirical. The melting-points of butter and the fats used in adulteration, being different, afforded a means of detecting their addition, as they separate when melted. It is also important to note that in any mixture of fats there is invariably a lower melting-point than with any of the constituents of such a mixture taken separately. He had from time to time been called upon to certify in cases of supposed adulteration. In some instances, though the moral presumption against the seller had been very strong, in the absence of positive proof he had preferred to give the suspected party the benefit of the doubt, especially as it would be awkward to be called upon to prove what one might not be quite certain of, by some other analyst employed by the peccant party. He had found as much as 22 per cent. of water in many samples of butter in the market. Salt is added to preserve rancid and curdy butter.

Dr. Tidy said he had no doubt sulphites were often used

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for the same purpose; in fact, he might say he was perfectly clear on the point.

Dr. BERNAYS had found from 5 to 6 per cent. of water necessary to give butter its peculiar and delicate flavour.

Dr. TRIPE found the proportion of salt by drying a small quantity of butter in a water-bath for five hours at a temperature of 220°. The loss in weight then represents the proportion of water. He then burnt the dry residue over a lamp, the ash remaining being the quantity of salt.

Dr. TIDY, in reply to a question, stated that he always inserted the quantity of water in his certificate when over 10 per cent. He had, however, never taken up a case for water only, but only for the presence of other fats.

ROYAL MEDICAL AND CHIRURGICAL SOCIETY.

TUESDAY, JANUARY 27.

Dr. C. J. B. WILLIAMS, F.R.S., President, in the Chair.

A SECOND communication by Dr. JOHN HARLEY was read, "On the Uses of Conium in Disorders of Muscular Movement," with further details of the cases shown at a previous meeting on December 9 last. The patients were again shown to the meeting.

Dr. BUZZARD asked Dr. Harley if he had had any difficulty in getting the drug pure. He had used the succus extensively during the last year for choreic and spasmodic affections. He had given children of about nine years of age a drachm three times a day. He had never seen any physiological effect from whatever dose he had administered, but he had never exceeded one ounce and a half a day.

Dr. JOHN HARLEY said that the succus varied greatly in strength, two drachms of one preparation being equal to an ounce of another. He knew that the juice was very much adulterated, and was often made from the inert extract by dissolving out the oleaginous part and then colouring it.

Dr. COTTON said he had used the drug largely for inhalation some years ago, but gave it up, considering it useless.

Sir WILLIAM JENNER asked Dr. Harley if the juice he had used was the genuine. Since the strength of different preparations varied so greatly, it was important to know, if so much was ordered, whether there would be any risk to the patient.

Dr. GEORGE HARLEY said the strength of the succus depended upon its mode of preparation and the time of the year the tops were picked; the plant was most poisonous in the spring. If the juice contained conia, that would explain its variability. From experiments he had made, he found that conia rapidly decomposed and lost its power, so that where two drops were required to kill a dog in ten minutes, after a time eight or ten had to be given. He found the same when using the extract. Conium does not affect the intellect, but paralyses the muscles of motion.

Dr. J. HARLEY replied that he always tested the juice before employing it, taking it himself and ascertaining how much would produce physiological effects. The remarks made upon conia were not to the point, because it does not exist uncombined; it is in combination with a vegetable acid, and does not decompose. The succus will remain good for ten years.

Mr. JOHN WOOD showed two cases of Complete Ectopia Vesicæ with Epispadias, which had been operated on with success by his plastic method. The patients were brothers, aged eighteen and twelve years respectively. The elder had a very wide interval between the pubic bones, the superior rami being separated to the extent of five inches, leaving a large portion of the mucous surface of the bladder and the orifices of the ureters uncovered, and discharging blood and mucus. The younger was a smaller and more favourable case. Two plastic operations had been performed on each in King's College Hospital. The first consisted of a reversed flap of skin taken from the umbilical region, large enough to cover the exposed bladder, and turned down with its skin surface towards the mucous membrane. The skin of the flap was in this situation quite devoid of hair, as is usual in these cases. Two other flaps of a lancet shape were then taken, one from each groin, with the bases downwards, and placed upon the raw surface of the reversed flap. They were held together by harelip-pins and wire sutures. The second operation was effected by the transplantation of the anterior three-fourths of the scrotum from below the malformed penis to its upper surface, covering in the urethral epispadiac groove and forming a very complete prepuce, through and under which the urine flows, and completely enveloping the glans penis above and at the sides. The elder patient had had two attacks of erysipelas during the treatment, which prolonged the period of convalescence and necessitated his leaving the hospital for an interval. The younger, who was treated at the same time, proved somewhat intractable in the insertion and management of the indiarubber tube used in the after-dressings. The result was, in this case, a small slough at the point of junction of the flaps transplanted at the second operation, which left a fistulous opening. Upon this two operations of a minor and trifling character have been since performed, and it is now nearly healed and contracted to a small chink. With this exception the parts are all soundly healed and are being gradually braced up and rendered more resisting by the contraction following the operation. The patients are about to have made a shield to fix on to the restored penis, and an indiarubber urinal attached, fastened to the leg like a railway urinal, an instrument which, in other cases operated on by Mr. Wood, has kept the patient dry and comfortable. (A detailed description of the operations performed by Mr. Wood for this deformity is to be found in a paper published in the fifty-second volume of the *Transactions of the Royal Medico-Chirurgical Society*, 1869, p. 85, with coloured explanatory plates, p. 132.)

Mr. THOS. SMITH asked what means he employed for destroying the hairs growing on the inside of the flaps; did he use any pomade, and did he take any means to prevent the formation of phosphates?

Mr. WOOD said this had troubled him much. He knew of no pomade that destroyed the hair-bulbs. The only effectual way in an adult—for in a child it was not necessary, the irritation of the urine preventing the growth of the tender and not fully formed hair—was to destroy the hair-bulbs *seriatim* by nitric acid before operating. As the second flap was small, there was not much trouble in doing this; the first flap from the umbilicus had not generally many hairs. He thought nothing but cleanliness would prevent the deposit of phosphates on the hair. He used a dilute solution of nitric acid.

Mr. HENRY LEE read a paper describing a case of Primary Excision of the Ankle-joint. He believes it to be the only case in which complete primary section of the ankle-joint has been performed; and advocates the plan, both in primary and secondary excisions of the joint, of dislocating the tibia and fibula *outward* so as to allow of the articular surface of the tibia being removed with comparatively little disturbance to the surrounding parts. The articular surface of the astragalus is also more easily removed in this way than by dislocating the bones of the leg inward, as has commonly been attempted in secondary excisions of the joint. In many of the so-called excisions of the ankle, the extremities of the tibia and fibula have alone been removed, and the articular surface of the astragalus has been left either partially or altogether. In other cases, where a complete secondary resection of the joint has been performed, the bones have been divided by a thin saw whilst they have remained *in situ*; a proceeding, according to the author, involving considerable disturbance and risk to the surrounding parts. In other cases, again, an incision has been made on the outside of the joint, and a dislocation of the bones attempted; but this cannot be satisfactorily accomplished so long as the internal malleolus is left. The plan advocated, therefore, is to remove the internal malleolus first, and then the tibia and fibula may be dislocated outward through the external wound with great facility and without interfering with any important structures. Such a mode of operating has not, he believes, been hitherto described. The patient was exhibited at the meeting.

Mr. BARWELL said he was the first to describe Hancock's method of excision of the ankle-joint. He differed from Mr. Lee's remarks as to the difficulty of that operation. He then described the way in which he now performed the operation.

Mr. MAUNDER said he had operated on a lad aged nineteen, who had met with an accident very similar to Mr. Lee's patient. He had had no difficulty; the bones projected inwards. He sawed off the ends, and then the upper part of the astragalus. The patient, unfortunately, died of pyæmia. He had performed the operation for disease in the way Mr. Barwell had described.

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Mr. Thos. Smith had performed the operation three times. He thought it better to remove the external malleolus and part of the fibula first.

Mr. John Wood described the way in which he had operated for disease of the ankle-joint and tibia. From operations on the dead body he thought there was no difficulty with respect to the internal malleolus in turning the foot out after the external malleolus had been removed.

Mr. Lee briefly replied.

THE PATHOLOGICAL SOCIETY.

Tuesday, February 3.

Sir W. Jenner, F.R.S., President, in the Chair.

Mr. Butlin exhibited a specimen of Ununited Fracture of the Femur, removed by amputation. The patient, a woman of fifty-one, was admitted into St. Bartholomew's Hospital in March, 1873, with a very oblique fracture of the femur, five or six inches above the knee. It was treated with a long splint and perineal band without success, and thereafter with an inclined plane and a weight, but the limb continued more than two inches shortened, and union did not take place. On December 13, resection was performed on the lower end of the upper fragment, and two steel pegs were driven into the bones. These remained firm until January 17, when they became loose, and soon after Mr. Callender (under whose care the patient was) replaced them by two gimlets. The patient, however, became worse, and the temperature rose. The limb was amputated on January 31. Mr. Butlin pointed out that the holes formerly occupied by the pegs were much larger than the pegs themselves. This condition corresponded to the looseness of the fragments. At the same time a considerable amount of new bone had been formed around the pegs. Again, in regard to the knee-joint, it was found on dissection to be in a condition not generally supposed to be due to rest; for there was true fibrous anchylosis, and along with it ulceration of the cartilages. No history of disease or of injury to the joint previous to the fracture of the thigh could be obtained. In August the joint was first discovered to be stiff. Mr. Butlin would not say the change was due to position, yet such were the facts.

The President referred to the condition of the knee-joint in this case. He inquired whether the splint might not have pressed on the joints when the weights were applied; and what was the patient's occupation.

Mr. Butlin replied that the splint did not press on the knee; that the extension treatment was adopted after the stiffness of the joint had been discovered; and that the woman had followed ordinary household duties, and was not lame. He further stated, in answer to certain questions put by Mr. Arnott, that there had been no arthritic symptoms during the woman's stay in the hospital—no pain, or starting, or fulness of the joint; that, in fact, the condition found had never been suspected.

Mr. Brudenell Carter exhibited an Intraocular Growth of Uncertain Character, which he removed, along with the globe, from a youth of seventeen, in December last. According to the patient's account, vision had been always defective in this eye. In June, 1873, it was found to be very misty, and two or three months after, the eyesight was nearly or altogether lost. On examination, the eye was found to be stony-hard and externally inflamed, while a mass of some size was situated behind the lens. The patient had lost two uncles from inward cancer. The point of greatest pathological interest in the case was, that after enucleation the eyeball was found to contain a tumour which presented the appearances of degeneration only, without any trace of fresh growth, while the history of the patient indicated the presence of a rapidly growing tumour. (The specimen was referred to the Morbid Growth Committee.)

Mr. Gowlland brought forward three cases of Villous Tumour of the Rectum, illustrated by drawings. The first case was a man of sixty-two, who believed that he had suffered from bleeding piles for two years and a half, after which a protrusion appeared at the anus, without much pain, and with but little hæmorrhage. When he presented himself, he was found to be suffering from a tumour as large as a fist protruding at the anus and bringing down three or four inches of the bowel. The growth was removed by ligature, and the patient made a good recovery. The microscopical examination of the tumour was made by Dr. Andrew Clark at the time (twelve years ago), who found that it presented a cauliflower appearance, having been attached to the wall of the gut by a pedicle, while it broke up in an arborescent manner towards the free surface, and finally ended in a kind of villi. The pedicle and the branches were fibrous and vascular, and the whole was covered by a mucous membrane with epithelium. The second case was that of a woman of sixty-five, who had had an anal protrusion for twelve or fourteen months, at first accompanied by slight hæmorrhage and frequent straining with discharge of mucus. This tumour was removed like the first, and the recovery was good. The third case occurred quite recently, in a man who had been operated on for the same disease eleven years ago. He had continued well until about six months before admission into St. Mark's Hospital, when protrusion, pain, and a foul discharge were the prominent symptoms. A small portion of the first tumour was known to have been left unremoved. Mr. Gowlland, in discussing the nature of these growths, mentioned two other cases of the same disease which he had seen within the last seventeen years—making five in all. The first of these was in an old lady who was turned out of the hospital as an incurable case of cancer. The last was in a man of thirty-one years, who first suffered with symptoms of rectal growth at the age of fifteen, and who had been twice operated on with imperfect success during the sixteen years that had since elapsed, the symptoms returning after a time. A third operation was performed by Mr. Gowlland, and has apparently proved permanently successful.

The President said that the structure of these tumours exactly corresponds with that of the villous growths in the bladder. The very same structure also occurs in the familiar patches in serous membrane, where friction has been applied—in the pericardium, pleura, and peritoneum. He inquired if Mr. Gowlland or any other member had ever examined the rectum of such a case post-mortem. In the bladder, such a growth is always accompanied by numerous others of smaller size.

Mr. Howard Marsh asked whether Mr. Gowlland had ever met with a malignant growth projecting from the anus. He mentioned a case, most probably of a malignant character, in a woman at St. Bartholomew's Hospital some years ago. The disease spread so rapidly that colotomy gave relief for some seven or eight months only.

Mr. Gowlland replied that such cases had been described, but the skin at the anus was involved. In regard to the President's question, he had not examined post-mortem a rectum which had been the seat of villous tumour.

Mr. Arnott considered these specimens of villous tumour of very great interest. Rokitansky had described them as villous cancer. Twenty years ago Mr. Quain had resolved to drop the name "cancer" for these growths, after Jenner's description of their structure; yet Rokitansky speaks of the lymphatic glands being involved in some cases. Some four or five years ago, Sir William Fergusson removed such a growth as large as a cricket-ball, which had long been regarded as cancer, but was not so histologically. At the present time Mr. Arnott had under his care a patient whose colon he opened two years ago for cancerous stricture of the rectum. It has lately increased much in size; it projects, and is villous, but at the same time perfectly indurated. The glands are deeply involved, and there is also dropsy. Again, in respect to the relation of villous growths to fungous tumours of the cervix uteri, in most perfect specimens of the latter just the same structure is to be found. Still, some of them are cancerous, with infiltrated base and secondary deposit; the condition of the base is therefore very important.

The President said that much will depend on the state of system and predisposition of the patient.

Mr. Howard Marsh showed Sarcomatous Growths from the Bladder and Vagina of a child two years old, who died of the disease. The greater part of the interior of the bladder was affected, the growth presenting a surface rough or even villous in some places, in others convoluted like the surface of the brain. In the vagina the growth chiefly affected the anterior wall, crowding and expanding the passage, and forming numerous masses with secondary processes on the surface. The uterus was not so much involved in the disease. Microscopically the tumours were found to be chiefly composed of round cells in a homogeneous basis, with fibres at intervals. The child had been ill some ten months, and the growths had been several times partially removed by a surgeon by means of ligature. On examination it was found that bladder-like masses projected at the vulva. The symptoms were incontinence of urine and

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severe local pain. There was also a palpable hypogastric tumour. The child was discharged from the Great Ormond-street Hospital as incurable, and died eighteen months from the first appearance of the disease.

The PRESIDENT inquired whether the disease had much the appearance of an ordinary villous growth when it was seen during life.

Mr. MARSH replied that the growth was vascular in so far that it bled slightly, but to the eye it was not. (The specimen was referred to the Morbid Growth Committee.)

Dr. CRISP showed the Tapeworm *Tænia calva* of the Grouse (*T. Scoticus*), prepared in the following manner. The worm is laid upon a piece of glass and gradually dried; over this another piece of glass is placed, and the edges are cemented so as to exclude the air. By this means the form of the parasite is far better seen than when it is preserved in spirits, or in Gradby's solution.

Dr. CRISP showed a Strongylus, not before described, from the cæcal appendages of the Willow Grouse (*T. Saliceti*), and believed that strongyli would be found in the cæca of the ptarmigan, black cock, and others of the *Tetraonidæ*. During the last epidemic of the grouse disease, Dr. Crisp found strongylus in healthy as well as in unhealthy birds. On this subject he comes to the following conclusions:—That, considering the great abundance of entozoa in various animals, as hares, rabbits, seals, porpoises, sun fish, salmon, trout, and many others, and the large number of tapeworms and strongyli in grouse apparently in good health and good condition, it is more than probable that there is another deleterious cause in operation—whether fungoid or otherwise. With this we are not at present acquainted, and before we can come to accurate conclusions on the subject, a more methodical, scientific, and comprehensive investigation must be made.

Mr. T. S. TOWNSEND asked Dr. Crisp whether he believed killing the hawks led to increase of these entozoa in birds. He had made many post-mortem examinations of grouse in Egypt and Nubia, and found no entozoa.

Dr. CRISP was unable to speak with confidence on this question.

The PRESIDENT remarked that parasites might be the cause of the death of such numbers of the birds as to constitute an epidemic, while in other individuals, and at other times, they proved harmless. He adduced tapeworm in man as an instance in illustration. He has known tapeworm cause epileptiform convulsions in an adult.

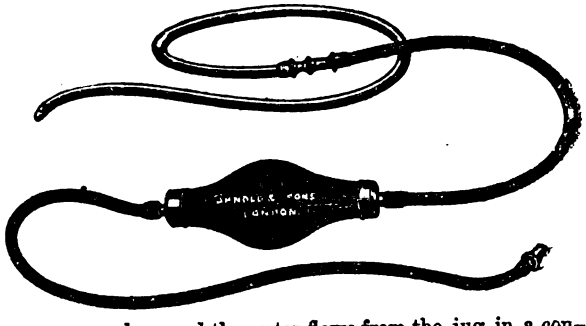
Dr. FARQUHARSON believed that the grouse disease is probably an epidemic so-called, like cholera. As to Dr. Cobbold's theory of its nature, that gentleman had confessed that nearly as many of the healthy birds contained parasites. The disease returns almost certainly every seven years. There is the same peculiar uncertainty of selection of the locality of appearance as in cholera. It spreads with extreme rapidity; and the birds are found lying dead by brooks, as if the disease were contagious and febrile.

NEW INVENTIONS.

AN IMPROVED SYPHON STOMACH-PUMP.

[To the Editor of the Medical Times and Gazette.]

SIR,—For some time past I have felt convinced that the stomach-pump now in use is far from a perfect apparatus. It is costly, not particularly portable, and, above all, a dangerous instrument; cases being known where the stomach-tube has been pushed through the coats of the stomach or œsophagus. I wish therefore to bring before the notice of the profession a stomach-pump on a novel principle, which has been made for me by Messrs. Arnold and Sons, the well-known instrument makers in West Smithfield. The advantages I claim for my instrument are—freedom from danger, cheapness, and increased portability. It can be easily carried in the coat-pocket, its cost does not exceed 15s., and it is almost impossible to perforate the coats of the stomach or œsophagus by means of it, be the operator ever so clumsy or ignorant. The instrument consists of an indiarubber tube, about half an inch in diameter and some four feet in length, provided with a ball of the same material, which is three or four inches in diameter, and situated about eighteen inches from one end of it. In fact, it is almost a *fac-simile* of one of Higginson's enema syringes, but without a valve. To the shorter length of tube the stomach-tube proper is attached by a simple contrivance. This stomach-tube is nothing more nor less than an enlarged Thompson's indiarubber catheter with two large oval holes situated near the extremity. Let us suppose the instrument to be used in a case of poisoning where it is desired to wash out the stomach as speedily as possible. The patient being seated in a chair or reclining on a couch, the stomach-tube is oiled and then passed back in the mouth in the usual way until it has reached the upper part of the pharynx. Its passage down the œsophagus, as in the case of Thompson's catheter in the urethra, is effected by twisting it round and round in the hand until it has reached the stomach. I need scarcely point out how much less pain this soft, flexible tube must cause than the hard, somewhat inelastic tube generally used. The rest of the instrument is now adjusted to the stomach-tube (the work of a second), and then a jug of water being obtained, the end of the tube beyond the ball is introduced into it. The operator with one hand pinching the indiarubber tube somewhere between the ball and the patient's mouth, with the other hand compresses the elastic ball, and thus forces out some of the air contained in it, which bubbles up through the water in the jug. When this has been repeated two or three times all the air is forced out, and the ball becomes filled with water. If the jug be now raised a foot or two above the patient's stomach, and the pinching of the tube discontinued, the instrument acts at



once as a syphon, and the water flows from the jug in a continuous stream into the patient's stomach. When enough has been introduced, the tube is pinched somewhere between the ball and the patient's mouth, and the flow of water into the stomach is at once stopped; the water being retained in the ball by the atmospheric pressure. If the end of the tube be now taken out of the jug, and put into a basin below the level of the patient's stomach, upon the pinching of the tube being discontinued, the contents of the stomach will at once flow out into the basin in a continuous stream, the instrument acting of course again as a syphon, only in the reverse way to that previously. When it is believed that the stomach is nearly empty, the tube is pinched between the ball and the basin, the end of the tube put back into the jug, and the whole thing repeated over again. The object of pinching the tube when the end of it is being shifted from the jug to the basin, and *vice versâ*, is of course to retain the water in it by means of the atmospheric pressure, thus enabling it to act as a syphon. In a case of opium poisoning I have lately used this instrument, and by means of it thoroughly washed out the patient's stomach in a very brief space of time. In case the holes at the end of the stomach-tube become clogged with food, they can be easily freed by pinching the tube between the ball and the jug; compression of the ball will then force out the fluid contained in it, and thus clear the holes. In conclusion, I would draw special attention to the low price at which this instrument can be obtained. I do not think I am wrong in asserting that the great majority of general practitioners do not possess a stomach-pump. This is chiefly due, I believe, to the high price of the instrument hitherto used. This objection being now removed, there can no longer be an excuse for any practitioner being unprovided with an instrument, the want of which may materially tend to lessen the chances of recovery in a case of poisoning.

I am, &c.,

LOUIS H. TOSSWILL, M.D. Cantab.

49, Magdalen-street, Exeter.

Dr. LYTTLETON WINSLOW is a candidate for the Lectureship on Mental Diseases at Guy's Hospital. He is well fitted, both by his talents and acquirements, for the office, and if elected will no doubt fulfil its duties with diligence and ability.

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OBITUARY.

JOHN CHISHOLM MACDONALD, M.R.C.S.,

Died at the Public Hospital at Kingston, Jamaica, on January 4, of angina pectoris. He was a native of Jamaica, and was educated at the Collegiate School in Kingston, and at the Elgin Academy. After leaving Elgin, he pursued his medical studies in London, and held situations in the hospital at which he studied, and in one of the hospitals in the midland counties. He returned to Jamaica, and became House-Surgeon at the Public Hospital, and for a considerable period was Acting Chief Medical Officer. These duties he fulfilled with zeal and efficiency. He enjoyed a high reputation among his professional brethren, and had the esteem of all who knew him.

MEDICAL NEWS.

Royal College of Surgeons of England.—At the Christmas preliminary examination in Arts, etc., for the diplomas of Fellowship and Membership of the College, 252 candidates offered themselves; of this number forty passed for the first named distinction, viz. :—

Brown, W. H.	Heubeck, F. E.	Reid, R. C.
Bowman, H. E.	Hepburn, Alfred.	Robinson, Frederick.
Buckland, A. G.	James, H. E. R.	Sagar, Robert.
Charles, Henry.	Jones, W. M.	Shaw, C. T. K.
Child, W. L.	Joseph, G. W.	Shaw, H. J.
Coates, G. H.	Kendall, P. S.	Smith, Ebenezer.
Cox, Edward.	Layborn, W. K.	Spark, John.
Cracknell, A. E.	Lewis, T. H.	Taunton, A. T.
Douglas, A. B.	Lovell, R. H.	Thomas, L. M.
Francis, William.	Makins, G. H.	Walsh, H. W. D.
Graham, A. H.	Nicholson, J. E.	Wickham, H.
Harrison, John.	Palmer, G. E.	Wilcox, Henry.
Harrison, J. W.	Potter, H. P.	Winterbottom, Aug.
Havens, E. J.		

The following gentlemen, 108 in number, passed for the Membership, viz. :—

Anderson, James.	Gibbons, C. S.	Penny, W. J.
Atkin, Charles.	Goode, E. H.	Permewan, A. E.
Aubin, W. D.	Gripper, A. D.	Perkins, G. C. S.
Bean, H. K.	Hart, A. P.	Perrott, R. D.
Berry, J. B.	Hartley, W. D.	Pickworth, A. J.
Bishop, J. T.	Harris, J. R.	Porter, T. M.
Bowen, A. E. R.	Higson, James.	Powel, W. A.
Bousfield, E. C.	Haycraft, C. H.	Prangley, H. J.
Brown, M. L.	Hughes, T. M.	Preston, J. T.
Buck, J. S.	Jacob, H. G.	Ranking, W. A. E.
Burgess, C. V.	Jeffreys, J. P.	Rose, F.
Butterworth, T. D.	Kennedy, W. F. C.	Ryves, W. E.
Carter, Godfrey.	King, H. W.	Salter, F. J.
Chandor, Montague.	Kite, W. S.	Salter, F. W.
Cheeseman, Richard.	Lamb, J. C.	Scott, Alfred.
Clabburn, T. G.	Leatham, H. B.	Shorland, W. E.
Codner, John.	Leech, L. T.	Sloggett, A. T.
Cole, G. M.	Leigh, W. A.	Sobey, E. A. L.
Collins, G. D.	Litle, G. A. P.	Stanger, C. E.
Coombs, M. L. B.	Lory, W. J.	Sutton, P. F.
Councell, E. A.	Martin, J. M.	Sutton, F. W.
Cox, A. L.	Mathews, P. W.	Sutton, S. W.
Cox, T. A.	McLellan, William.	Swabey, L. W.
Cowen, W. R.	Meredith, S. J.	Taylor, F. E.
Cumming, G. W. H.	Millard, W. W.	Taylor, H. C.
Davies, John.	Miller, J. C.	Taylor, S. J.
David, E. T.	Miller, Robert.	Till, G. W.
Eason, A. M.	Morgan, C. J.	Todd, G. D.
Edwards, J. H.	Morris, Albert.	Vivanti, R. I.
Essell, G. F. S.	Mudge, T. H. T.	Walker, H. E.
Evans, John.	Murnby, B. H.	Walker, J. S.
Fardon, E. A.	Norman, A. H.	Walsh, R. W.
Fenwick, W. C.	North, E.	Warwick, Percy.
Fletcher, J. H.	Osborne, James.	Whitehouse, John.
Fraser, Frank.	Parsloe, H. H.	White, R. W.
Gallienne, W. J. N.	Pease, L. T.	Wilson, Frederick.

The total number of rejections amounted to ninety. The next examination will take place at Midsummer.

APPOINTMENTS.

*** The Editor will thank gentlemen to forward to the Publishing-office, as early as possible, information as to any new Appointments that take place.

Burroughs, E. F. H., L.R.C.S., L.S.A.—Surgeon to the Middlesex District of the Bridgwater Union and to the Othery Friendly Society, *vice* Wm. Autey, M.R.C.S., L.S.A., resigned.

Edge, A. Matthewson, M.D., M.R.C.S. Eng.—Physicians' Assistant to the Manchester Royal Infirmary.

Hope, Samuel Wilson, L.R.C.P. Lond., M.R.C.S. Eng.—Medical Officer and Medical Officer of Health for the Tillington District of Midhurst Union.

BIRTHS.

Cox.—On February 1, at 8, Mulgrave-road, Sutton, the wife of William Alfred Cox, M.R.C.S., L.S.A., of a daughter.

Husband.—On February 9, the wife of H. Aubrey Husband, M.B., M.C., of Stroud-green-road, N., of a son.

Keele.—On February 7, at 51, St. Paul's-road, Highbury, the wife of George Thomas Keele, M.R.C.S. Eng., L.S.A., of a daughter.

McConville.—On February 4, at 27, Elmbank-place, Glasgow, the wife of John McConville, M.D., of a son.

Moore.—On February 5, the wife of W. Moore, M.R.C.S. Eng., L.S.A., Stourport, Worcestershire, of a daughter.

Phipps.—On February 4, at Clairville, Oxford-road, Manchester, the wife of G. Constantine Phipps, M.D., of a son.

Stevenson.—On February 8, at 21, Caversham-road, N.W., the wife of Thomas Stevenson, M.D., F.R.C.P., of a daughter.

Watts.—On February 2, at Wootton Bassett, Wilts, the wife of A. N. Watts, L.R.C.P. Edin., M.R.C.S. Eng., of a daughter.

MARRIAGES.

Plant—Dumbell.—On February 4, at St. Barnabas Church, Douglas, Isle of Man, Captain W. C. Plant, Deputy Commissioner and Justice of the Peace of British Burmah, eldest surviving son of William Plant, M.D., J.P., Monkstown, co. Dublin, to Essy Gibson, daughter of G. W. Dumbell, H.K., of Belmont, Douglas.

Walsh—Clarke.—On February 3, at Whitechurch, near Dublin, Albert Jasper Walsh, M.D., 39, Harcourt-street, Dublin, seventh son of the late John Walsh, Esq., Dundrum Castle, co. Dublin, to Charlotte Maria, eldest daughter of the late Courtney Kenny Clarke, Esq., Larch-hill, co. Dublin.

Willan—Hickson.—On February 5, at the parish church, Melton-Mowbray, G. T. Willan, M.R.C.S., to Elizabeth J., daughter of Thomas Hickson, Esq., Stanley House, Melton Mowbray.

DEATHS.

Annesley, J. C., M.R.C.S. Eng., Surgeon-Major Bengal Army, at 1, Fauconberg-villas, Cheltenham, on February 8, aged 41.

Armstrong, Margaret, daughter of Surgeon-Major Armstrong, Inniskilling Dragoons, on February 4, of typhoid fever, aged 11.

Battishill, John, M.R.C.S. Eng., L.S.A., at Spreyton, Devon, on February 4, aged 69.

Caskie, John, M.B., C.M., only son of John Caskie, L.F.P.S. Glasg., at Stewarton, Ayrshire, on February 4, aged 23.

Castle, Eliza (Tiny), youngest daughter of Henry Castle, M.D., L.R.C.S., at Newport, Isle of Wight, on February 8, aged 17.

Jackson, Kate Nancy Winifred, infant daughter of H. E. Jackson, M.R.C.S., at Highbury-grove, N., on February 7, aged 19 days.

Kellock, William, L.S.A., at Totnes, Devon, on February 4, aged 78.

Macann, Arthur Bernard, M.R.C.S., L.S.A., at his residence, 22, King-street, Portman-square, on February 4, aged 58.

Porter, John Taylor, F.R.C.S., L.S.A., at his residence, Ash Mount, Broomhill, Sheffield, aged 55.

Sewell, Annie Hughes, wife of C. Brodie Sewell, M.D., M.R.C.S. Eng., L.S.A., of 76, Guilford-street, Russell-square, on February 8.

VACANCIES.

In the following list the nature of the office vacant, the qualifications required in the Candidate, the person to whom application should be made, and the day of election (as far as known) are stated in succession.

Bristol General Hospital.—Assistant House-Surgeon. Candidates must be duly qualified. Applications, with testimonials, to the Secretary, on or before March 20.

Dumfries and Galloway Royal Infirmary.—House-Surgeon, Clerk, and Apothecary. Applications, with testimonials, to the Treasurer, Dumfries, on or before February 14.

Dursley Union.—Medical Officer for District No. 3. Applications, with testimonials, to Mr. G. Wenden, Clerk to the Guardians, Dursley, on or before February 25.

Evelina Hospital for Sick Children, Southwark-bridge-road, S.E.—Physician. Candidates must be F. or M.R.C.P. Applications, with testimonials, to the Committee of Management, on or before February 28. Also vacancy for Surgeon for Out-Patients. Candidates must be F. or M.R.C.S. Applications, with testimonials, as above.

General Hospital, Nottingham.—Physician. Candidates must be duly qualified. Applications, with testimonials, to the Chairman of the Qualification Committee, on or before March 10.

Holbeach Union.—Medical Officer for the Sutton Bridge District. Applications, with testimonials, to the Clerk of the Union, on or before March 15.

Hospital for Sick Children, 49, Great Ormond-street.—Assistant-Physician. Candidates must be F. or M.R.C.P. Lond. Applications, with testimonials, to the Secretary, on or before February 18.

Huddersfield Infirmary.—Physician. Particulars from the Honorary Secretary or House-Surgeon.

Inverkip (District of).—Resident Medical Practitioner. Applications, with testimonials, to H. R. B. Peile, Esq., Mansion-house, Greenock, on or before February 21.

Inverness District Asylum.—Assistant Medical Officer. Applications, with testimonials, to Dr. Aitken, Medical Superintendent, on or before March 2.

Leith Hospital.—Assistant-Surgeon. Applications, with testimonials, to Mr. Mann, 42, Bernard-street, Leith.

Littlemore Pauper Lunatic Asylum, near Oxford.—Resident Assistant Medical Officer. Candidates must be duly qualified. Applications, with testimonials, to the Superintendent, on or before February 23.

Narberth Union.—Medical Officer. Candidates must be duly qualified. Applications, with testimonials, to Mr. John Thomas, Clerk, on or before March 21.

Preston and County of Lancaster Royal Infirmary, Preston.—Junior House-Surgeon. Candidates must be duly qualified. Applications, with testimonials, to R. Blair, Esq., M.B., at the Infirmary.

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Rhayader Union, Radnorshire.—Medical Officer. Candidates must be duly qualified. Applications, with testimonials, to Mr. J. Jarman, Clerk to the Guardians, on or before February 23.

Royal South London Dispensary, St. George's-cross, Lambeth-road, S.E.—Honorary District Surgeon. Applications, with testimonials, to Mr. Hentsch, at the Dispensary, on or before February 17.

St. Mary Abbotts, Kensington.—Analyst. Applications, with testimonials (limited to three), to Mr. G. C. Harding, Clerk, Vestry Hall, on or before February 16.

St. Mary's Hospital, Paddington.—Aural Surgeon. Applications, with testimonials, to the Secretary, on or before February 14.

Stockbridge Union.—Medical Officer of Health. Candidates must be duly qualified. Applications, with testimonials, to G. M. Footner, Clerk to the Union, Romsey, on or before February 17.

Teignmouth, Dawlish, and Newton Infirmary.—House-Surgeon. Candidates must be duly qualified. Applications, with testimonials, to the Chairman of the Committee, Infirmary, Teignmouth, on or before February 19.

Torbay Infirmary and Dispensary, Torquay.—House-Surgeon and Secretary. Candidates must be duly qualified. Applications, with testimonials, to the Secretary, on or before March 7.

UNION AND PAROCHIAL MEDICAL SERVICE.

*** The area of each district is stated in acres. The population is computed according to the census of 1871.

RESIGNATIONS.

Crediton Union.—Mr. W. F. Thurston has resigned the Bow District; area 8630; population 1936; salary £36 15s. per annum; and the Colebrooke District; area 4900; population 787; salary £15 per annum.

Durnley Union.—Mr. Joseph H. Benson has resigned the Third District; area 6410; population 2316; salary £80 per annum.

Helmsley Union.—Mr. John Ness has resigned the Workhouse; salary £13 per annum. And the Helmsley District; area 51,598; population 3869; salary £47 per annum.

North Witchford Union.—Mr. James Newham has resigned the Workhouse; salary £60 per annum. And the First District; area 18,024; population 3336; salary £40 per annum.

Williton Union.—Mr. Wm. Gaye has resigned the Minehead District; area 8466; population 2276; salary £40 per annum.

APPOINTMENTS.

Bedminster Union.—Wm. A. Concanon, L.K. & Q.C.P.I., L.R.C.S.I., to the Eighth District.

Cambridge Union.—James T. Beck, M.R.C.S. Eng., L.S.A., to the Third District.

Frome Union.—Joseph H. Benson, M.R.C.S., L.S.A., to the Second District.

Godstone Union.—Sydney C. Austin, M.R.C.S. Eng., L.S.A., to the South District.

Sculcoates Union.—Wm. Kirk, jun., M.R.C.S. Eng., L.S.A., to the Hedon District.

Seaford Union.—Thos. Blasson, M.R.C.S. Eng., L.S.A., to the Osbournby District.

Woodbridge Union.—Robert Pairman, B.M. and M.C. Edin., to the First and Second Wilford Districts.

County of Salop.—Henry Johnson, M.D. Edin., L.R.C.P. Lond., and Thos. P. Blunt, F.C.S., as Analysts, for one year.

Salford Borough.—Joseph C. Bell, F.C.S., M.Ph.S., as Analyst.

Windsor Borough.—Henry Letheby, M.B. Lond., L.S.A., and Charles M. Tidy, M.B., C.M., M.R.C.S. Eng., L.S.A., as Analysts.

SUPERANNUATION ALLOWANCE.

City of London Union.—Mr. John Elliott has been granted a superannuation allowance of £101 2s. 8d., upon resigning the office of Medical Officer for the Fourth District, after sixteen years' service.

Comparative Anatomy.—Mr. W. K. Parker, F.R.S., will commence his course of eighteen lectures "On the Structure and Development of the Vertebral Skull," in the theatre of the Royal College of Surgeons, on Monday next, the 16th inst.

Composition and Quality of the Metropolitan Waters in January, 1874.—The following are the returns (by Dr. C. M. Tidy, M.B., for Dr. Letheby) of the Society of Medical Officers of Health:—

Names of Water Companies.	Total Solid Matter per Gallon.	Oxygen required by Organic Matter, &c.	Nitrogen.		Hardness.	
			As Nitrates &c.	As Ammonia.	Before Boiling.	After Boiling.
Thames Water Companies.	Grains.	Grains.	Grains.	Grains.	Degs.	Degs.
Grand Junction	20·13	0·084	0·146	0·002	15·6	3·6
West Middlesex	20·56	0·008	0·130	0·001	15·8	3·6
Southwark & Vauxhall	20·23	0·066	0·130	0·002	15·8	3·3
Chelsea	19·9	0·062	0·124	0·001	15·6	3·6
Lambeth	20·36	0·037	0·114	0·002	15·6	3·3
Other Companies.						
Kent	28·10	0·002	0·208	0·000	21·2	5·7
New River	20·73	0·008	0·140	0·001	15·8	3·3
East London	21·53	0·031	0·166	0·001	16·5	4·0

Note.—The amount of oxygen required to oxidise the organic matter, nitrites, etc., is determined by a standard solution of permanganate of potash acting for three hours; and in the case of the metropolitan waters the quantity of organic matter is about eight times the amount of oxygen required by it.

The water was found to be clear and nearly colourless in all cases but the following, when it was slightly turbid—namely, the Grand Junction and the Chelsea water.

Notice was given by Dr. Heslop, at the monthly meeting of the governors of the Queen's Hospital, Birmingham, that he should, at the next meeting, propose a resolution prohibiting the resident officials, nurses, and servants from taking part in, or contributing towards, a testimonial to any person connected with the resident staff.

NOTES, QUERIES, AND REPLIES.

He that questioneth much shall learn much.—*Bacon.*

Dr. Berryman, St. John, N.B.—Enclosure received.

Raglan, Newport.—Drs. Winslow, Maudsley, H. Tuke, and Wood. Dr. Nairn, Commissioner of Lunacy, Whitehall, S.W.

B.—Dr. Matthew Baillie was quoted in his time as a refutation of the vulgar error that a scientific anatomist makes a bad practitioner.

Circulation.—Servetus, the eminent writer of the sixteenth century, who was burned alive by a religious antagonist, knew and described the "lesser circulation"—*i.e.*, that from the right ventricle through the lungs to the left auricle.

G.—Intussusception or invagination of the intestines is often found in the post-mortem examination of children, especially if the bowels have been irritated, and seems of no consequence if small. If a large portion be intussuscepted, other changes may follow—at least, the length of two feet has been passed by a human patient, and recovery has followed.

Principals and Assistants.—We have received some letters in reference to a notice to correspondents which appeared in our last under the above heading. It is, we think, undesirable to open a controversy on the subject, as it could not possibly be of benefit to anyone.

W. R. C., and "A Tutor."—You will find the list of those gentlemen who passed the preliminary examination at the Royal College of Surgeons in another page. To the latter correspondent: There were ninety rejections.

W. K. L., Plymouth.—Having passed the preliminary examination for the Fellowship, you can commence your professional studies at once.

Mr. Thompson.—Dr. Brady has been re-elected Member for Leitrim.

Cuvier, Belgravia.—Mr. W. Kitchen Parker, F.R.S., will commence his course of lectures on "Comparative Anatomy," at the College of Surgeons, on Monday next. You can obtain a ticket on application to the Secretary. Professor Wilson, F.R.S., will bring his course of lectures on "Dermatology" to a close this day (Friday).

H. M., Fowey.—The clinical lectures of Sir Wm. Lawrence and Mr. Bowman will be found in vol. xxv. of the *Medical Times and Gazette.*

Small Size and Viability of Infants.

TO THE EDITOR OF THE MEDICAL TIMES AND GAZETTE.

SIR,—Sir Everard Home, in his Croonian Oration for 1824 (*Philosophical Transactions*, 1825), gives the case of a woman travelling with the baggage of the Duke of Wellington's army, who was attacked and bitten by a monkey. She was then in her fourth month of pregnancy, but went on to her full term, when a living child was born, said to weigh one pound, and to be between seven and eight inches in length. It was brought to England, where it died at nine years of age when it was twenty-two inches high.

I am, &c., BOOKWORM.

[Sir Everard Home spoke from hearsay when he said that the new-born babe weighed only a pound. ED. *Med. Times and Gas.*]

M.—There is no doubt of the historical fact, that after the battle of Waterloo camp-followers went about chiselling the teeth out of the dead, in order to sell them to dentists. Our correspondent requests us to notice an advertisement headed "*Wanted to purchase old artificial teeth.*" There is nothing outrageous in it. If people must have artificial teeth, why not use human teeth, if clean and dead? The transplantation of living teeth in Hunter's time transplanted syphilis as well, and so this barbarous practice was stopped.

Deaf Mutes.—E. says—"A Miss Bunker, daughter of Eng, one of the Siamese Twins, a deaf and dumb woman, was lately married to a deaf and dumb man. Query: Is there any connexion between the defective development of the Siamese twins, and that which gives rise to deaf-dumbness? Query, also, whether for the public good such persons should not be castrated, or at least infibulated?"

Dr. McM., Liverpool.—The late Mr. Wadd, a member of the Council of the College of Surgeons, wrote a work on "Obesity," with his own illustrations. Dr. Beddoes was so uncomfortably stout that a lady of Clifton used to call him "the walking feather-bed." Dr. Stafford, who was enormously fat, was honoured with this epitaph:—

"Take heed, O good traveller, and do not tread hard,
For here lies Dr. Stafford, *in all this churchyard.*"

J. Barleycorn.—It was M. Payen who stated that strychnine was used in bitter beer. You will find a notice of it in this journal for April 3, 1852, page 346.

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COMMUNICATIONS have been received from—

Mr. Bevan Lewis, Bürry Port; J. W. Groves, London; Dr. C. Handfield Jones, London; Mr. Tegvan, London; Mr. Wagstaffe, London; Mr. Christopher Heath, London; Dr. J. Hughlings-Jackson, London; Dr. Galabin, London; An Ambitious Student; Mr. F. Barlow, Cambridge; Dr. Bathurst Woodman, London; Dr. Gray, Oxford; Mr. Edge, Manchester.

BOOKS RECEIVED—

Armstrong's Organic Chemistry — Traitement des Déplacements de l'Utérus par le Pessaire - Grandcollot, par L. P. Grandcollot—Etude sur la Septicémie Intestinale, par le Dr. Gaston Humbert—De la Péritonite Herniaire, par le Dr. Richelot—L'Expédition Anglaise de la Côte D'Or, par M. Léon Colin—Cobbold on Parasites and their Strange Uses—Year Book of Pharmacy, 1873—Dei Fenomeni Osmotici e delle Funzioni di Assorbimento nello Organismo Animale Memoria, del Dott. Filippo Pacini—Comptes-Rendus des Séances et Mémoires de la Société de Biologie, 1870 and 1871—Guy's Public Health, part 2—Reports of the Medical and Surgical Registrars of Middlesex Hospital for 1872—Nervenpathologie und Elektrotherapie, von Dr. Moriz Benedikt—Murray's Observations on the Pathology and Treatment of Cholera—Duckworth's Observations on Causes and Treatment of Certain Forms of Sleeplessness.

PERIODICALS AND NEWSPAPERS RECEIVED—

Lancet—British Medical Journal—Medical Press and Circular—London Medical Record—Canada Lancet—Berliner Klinische Wochenschrift, Nos. i. to vi.—Bow Bells—Allgemeine Wiener Medizinische Zeitung—La France Médicale—Gazette Médicale—Gazette des Hôpitaux—La Tribune Médicale—Le Progrès Médical—Archives de Tocologie Maladies des Femmes et des Enfants nouveau-nés, No. 1—"Onward"—Indian Medical Gazette.

APPOINTMENTS FOR THE WEEK.

February 14. *Saturday (this day).*

Operations at St. Bartholomew's, 1½ p.m.; King's College, 2 p.m.; Charing-cross, 2 p.m.; Royal Free, 9 a.m. and 2 p.m.; Hospital for Women, 2½ a.m.; Royal London Ophthalmic, 11 a.m.; Royal Westminster Ophthalmic, 1½ p.m.; St. Thomas's, 9½ a.m.

Royal Institution, 3 p.m. Mr. R. Bosworth Smith, "On Mohammed and Mohammedanism."

16. *Monday.*

Operations at the Metropolitan Free, 2 p.m.; St. Mark's Hospital for Diseases of the Rectum, 2 p.m.; St. Peter's Hospital for Stone, 3 p.m.; Royal London Ophthalmic, 11 a.m.; Royal Westminster Ophthalmic, 1½ p.m.

Medical Society of London, 8½ p.m. Dr. Cotton will exhibit a Steam Kettle for use in Pulmonary Affections. Mr. Jabez Hogg—A Case of Hemiopia. Mr. F. J. Gant, "On Strangulated Femoral Hernia." Dr. Farquharson, "On some Peculiarities of Pneumonia in Early Life."

Royal College of Surgeons of England, 4 p.m. Mr. W. K. Parker's Introductory Lecture on "The Structure and Development of the Vertebral Skull."

17. *Tuesday.*

Operations at Guy's, 1½ p.m.; Westminster, 2 p.m.; National Orthopædic, Great Portland-street, 2 p.m.; Royal London Ophthalmic, 11 a.m.; Royal Westminster Ophthalmic, 1½ p.m.; West London, 3 p.m.

London Anthropological Society, 8 p.m. Meeting.

Pathological Society, 8 p.m. Dr. R. Liveing—Extensive Atheroma of Pulmonary Artery, with Mitral Stenosis. Dr. Peacock—1. Dissecting Aneurism; 2. Typhoid Perforation of the Bowel. Mr. Nunn—Tumour which was attached to the Cervical Vertebræ. Dr. Morell-Mackenzie—Congenital Papillomatous Web uniting the Vocal Cords; Removal *per vias naturales*, and Establishment of Voice. Dr. Coupland—Tuberculosis of the Choroid. Mr. Howard Marsh—Hydatids of the Spermatic Cord. Dr. Fred. Taylor—Aneurism of the Aorta opening into the Pulmonary Artery. Mr. Myers—Aneurism of the Aorta, which Burst into the Pericardium. Mr. Knowsley Thornton—1. Ovarian Tumour affected by Secondary Cancer; 2. Dermoid Ovarian Cyst.

Royal Institution, 3 p.m. Prof. Tyndall, "On the Physical Properties of Liquids and Gases."

Statistical Society, 7¾ p.m. Monthly Meeting.

18. *Wednesday.*

Operations at University College, 2 p.m.; St. Mary's, 1½ p.m.; Middlesex, 1 p.m.; London, 2 p.m.; St. Bartholomew's, 1½ p.m.; Great Northern, 2 p.m.; St. Thomas's, 1½ p.m.; Samaritan, 2½ p.m.; King's College (by Mr. Wood), 2 p.m.; Royal London Ophthalmic, 11 a.m.; Royal Westminster Ophthalmic, 1½ p.m.

Royal College of Surgeons of England, 4 p.m. Mr. W. K. Parker's Lecture on "The Structure and Development of the Vertebral Skull."

19. *Thursday.*

Operations at St. George's, 1 p.m.; Central London Ophthalmic, 1 p.m.; Royal Orthopædic, 2 p.m.; University College, 2 p.m.; Royal London Ophthalmic, 11 a.m.; Royal Westminster Ophthalmic, 1½ p.m.

Harveian Society, (Adjourned Meeting of Council, 7½ p.m.), 8 p.m. Mr. H. E. Sewill, "On Neuralgia of the Face."

Royal Institution, 3 p.m. Prof. P. M. Duncan, "On Palæontology with reference to Extinct Animals, and the Physical Geography of their time."

20. *Friday.*

Operations at Central London Ophthalmic, 2 p.m.; Royal London Ophthalmic, 11 a.m.; South London Ophthalmic, 2 p.m.; Royal Westminster Ophthalmic, 1½ p.m.; St. George's (ophthalmic operations), 1½ p.m.

Hunterian Society (London Institution), 8 p.m. Dinner.

Royal College of Surgeons of England, 4 p.m. Mr. W. K. Parker's Lecture on "The Structure and Development of the Vertebral Skull."

Royal Institution (Weekly Evening Meeting, 8 p.m.), 9 p.m. Mr. Vernon Heath, "On the Autotype and other Photographic Processes and Discoveries."

VITAL STATISTICS OF LONDON.

Week ending Saturday, February 7.

BIRTHS.

Births of Boys, 1156; Girls, 1162; Total, 2318.
Average of 10 corresponding years 1864-73, 2328·2.

DEATHS.

	Males.	Females.	Total.
Deaths during the week	769	702	1411
Average of the ten years 1864-73	795·7	781·1	1576·8
Average corrected to increased population	...	...	1734
Deaths of people aged 80 and upwards	...	...	46

DEATHS IN SUB-DISTRICTS FROM EPIDEMICS.

	Population, 1871.	Small-pox.	Measles.	Scarlet Fever.	Diphtheria.	Whooping-cough.	Typhus.	Enteric (or Typhoid) Fever.	Simple continued Fever.	Diarrhœa.
West	561359	...	11	...	...	5	...	2	1	...
North	751729	...	11	3	2	12	...	4	1	1
Central ...	334369	...	8	...	2	5	...	1	...	...
East	639111	1	8	7	2	18	...	5	...	2
South	967892	...	10	3	1	13	1	4	1	5
Total	3254260	1	48	13	7	53	1	16	3	8

METEOROLOGY.

From Observations at the Greenwich Observatory.

Mean height of barometer	30·291 in.
Mean temperature	36·5°
Highest point of thermometer	46·7°
Lowest point of thermometer	24·1°
Mean dew-point temperature	33·6°
General direction of wind	Variable.
Whole amount of rain in the week	0·00 in.

BIRTHS and DEATHS Registered and METEOROLOGY during the Week ending Saturday, February 7, 1874, in the following large Towns:—

Boroughs, etc. (Municipal boundaries for all except London.)	Estimated Population to middle of the year 1874.*	Persons to an Acre. (1874.)	Births Registered during the week ending Feb. 7.	Deaths Registered during the week ending Feb. 7.	Temperature of Air (Fahr.) Highest during the Week.	Lowest during the Week.	Weekly Mean of Mean Daily Values.	Temp. of Air (Cent.) Weekly Mean of Mean Daily Values.	Rain Fall. In Inches.	In Centimetres.
London	3400701	45·1	2318	1411	46·7	24·1	36·5	2·50	0·00	0·00
Portsmouth ...	120436	26·8	64	61	50·2	24·2	38·8	3·77	0·00	0·00
Norwich	82257	11·0	48	26	47·0	19·0	34·8	1·56	0·00	0·00
Bristol	192889	43·3	130	81	46·0	26·1	37·7	3·17	0·00	0·00
Wolverhampton ...	70896	20·9	52	30	48·0	23·2	35·9	2·17	0·16	0·41
Birmingham ...	360892	43·0	289	174	49·4	21·2	36·2	2·33	0·00	0·00
Leicester	106202	33·2	68	52	48·7	20·0	35·4	1·89	0·01	0·03
Nottingham ...	90894	45·5	59	57	49·9	20·5	35·5	1·95	0·03	0·08
Liverpool	510640	98·0	374	262	47·9	23·5	37·2	2·89	0·02	0·05
Manchester ...	355339	82·8	277	179	48·0	22·8	36·2	2·33	0·00	0·00
Salford	133068	25·7	97	78	48·0	20·3	36·3	2·39	0·08	0·20
Oldham	86281	18·5	79	49	46·0	...	...	...	0·08	0·20
Bradford	163056	22·6	102	72	47·8	25·2	37·5	3·06	0·03	0·08
Leeds	278798	12·9	148	153	48·0	25·0	37·0	2·78	0·00	0·00
Sheffield	261029	13·3	229	126	48·0	20·0	36·8	2·66	0·00	0·00
Hull	130996	36·0	95	53	47·0	23·0	34·8	1·56	0·05	0·13
Sunderland ...	104378	31·6	96	43	...	...	...	...	...	...
Newcastle-on-Tyne	135437	25·2	108	82	48·0	24·0	37·8	3·22	0·08	0·20
Edinburgh	211691	47·8	118	100	...	...	...	...	...	...
Glasgow	508109	100·4	367	248	47·5	32·0	41·1	5·06	0·18	0·46
Dublin	314666	31·3	123	154	56·0	22·5	39·3	4·06	0·14	0·36
Total of 21 Towns in United Kingdm	7618655	36·6	5241	3491	56·0	19·0	36·9	2·72	0·05	0·13

At the Royal Observatory, Greenwich, the mean reading of the barometer last week was 30·29 in. The highest was 30·46 in. on Wednesday at noon, and the lowest 30·01 in. at the end of the week.

* The figures for the English and Scottish towns are the numbers enumerated in April, 1871, raised to the middle of 1874 by the addition of three years and a quarter's increase, calculated on the rate which prevailed between 1861 and 1871. The population of Dublin is taken as stationary at the number enumerated in April, 1871.

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ORIGINAL LECTURES.

CLINICAL LECTURES

DELIVERED IN UNIVERSITY COLLEGE HOSPITAL.

By CHRISTOPHER HEATH, F.R.C.S.,
Surgeon to the Hospital, and Teacher of Operative Surgery in University College.

ON A CASE OF COMPOUND FRACTURE OF THE SKULL.

GENTLEMEN,—The portion of skull you see on the table was taken from a boy who recently died in No. 1 ward, under the following circumstances:—He was admitted at seven o'clock on the evening of November 13 with a compound depressed fracture of the frontal bone, the result of a kick from a horse. He was in perfect health previously to the accident, which rendered him completely insensible, in which state he was brought at once to the hospital. I saw him half an hour afterwards, and found him totally unconscious, with stertorous breathing, dilated pupil on the right side, and an extremely slow pulse—only 44 in the minute. A semi-circular flap of skin,—the edge of which was nearly four inches in length,—had been torn up from the right side of the forehead by the horse's shoe, and the bone underneath was splintered extensively and much depressed. From the cavity thus produced venous blood constantly welled up through the chinks between the fragments of bone, and in order to check this, Mr. Browne, the house-surgeon, had judiciously applied a compress to arrest the hæmorrhage until I arrived. There could be no question as to the treatment to be pursued, and I therefore at once set about elevating the depressed fragments. These were so comminuted that the operation was extremely easy, and I was able to slip the blade of a pair of strong polypus forceps under them *seriatim*, and, using the forceps as an elevator at first, readily drew out altogether fifteen pieces of bone, which you see on this plate. Some of them include, as you will see, the whole thickness of the skull, whilst others consist of only one of its tables: points I shall have to refer to presently. The hole in the skull thus left is in the same condition now as it was then, and you can see that it is placed immediately above the right orbit, the upper and outer edge being sharply cut; but at the inner and lower margin the outer table of the skull is somewhat indented. The upper margin of the orbit was driven in somewhat by the force of the blow, and I could feel at the time that the roof of the orbit was more irregular than usual, and gave to the finger the sensation of being "crumpled up." It was clearly impossible to interfere with this with any advantage, and you will see in the specimen before you how useless any attempt of the kind would have been.

The dura mater was, of course, extensively exposed by the operation; but I did not discover any opening in it. The anterior lobe of the brain within it appeared softer than natural, and was, I fancied, lacerated—as proved to be the case after death. The venous bleeding was reproduced by the removal of the fragments of bone, and the blood appeared to come from between the calvaria and the dura mater,—apparently from the superior longitudinal sinus. I was obliged, therefore, to introduce a pledget of lint between the bone and the dura mater, to make pressure upon the bleeding point; and this effectually arrested the hæmorrhage. The patient was wrapped in a blanket and put to bed, with a hot bottle to his feet. He was still insensible; but the stertor had ceased, and the right pupil had become of the same size as the other. Two hours after the operation Mr. Browne found the pulse to be 60, and the respirations 36 per minute.

I saw the patient again an hour later, by which time the pulse had got up to 88. Not wishing to keep up pressure longer than necessary, I removed the lint I had inserted between the skull and the dura mater to check the hæmorrhage; but finding it reproduced as abundantly as before, I reinserted it, giving directions that it should at once be withdrawn if any convulsive symptoms should develope. I also ordered his urine to be drawn off, and this proved to be of specific gravity 1028, and to contain a large quantity of sugar. During the night he remained quiet, now and then tossing about a little. He answered "yes" when called by name, but passed his water under him. At 9 a.m. on the following morning (14th) his temperature in the axilla was 100°, and his pulse 98. He seemed irritable, and moved his arms and legs about. He was not sensible, but, when spoken to, scratched his head and opened the left eye.

The remainder of the case is recorded by Mr. Stewart, the ward clerk. On November 14, at 11 a.m., the patient was lying on his side, with his knees drawn up, breathing quietly but at the rate of 37 per minute. The skin was moist, the temperature 100·4, and the pulse 112 and soft. He answers "yes" and "no," and is said to have made an intelligible answer during the night, but not since. Passed his water in the bed; bowels have not acted. There is no paralysis of the face or limbs. On the forehead is a deep lacerated wound, commencing an inch above the inner angle of the left orbit, and passing obliquely downwards to the inner angle of the right orbit, and then transversely outwards to one inch above and one inch outside the outer angle of the right orbit. From this wound the house-surgeon has just removed two pieces of lint which had been inserted between the dura mater and the skull. There is an opening in the frontal bone of irregular shape, almost as extensive as the wound, and through it the dura mater is seen of a port-wine colour and opaque, rising and falling with each respiration, and having a pulsation synchronous with the pulse. Welling up at the outer angle of the wound is some clear serous fluid, but there is no hæmorrhage. The orbital ridge of the frontal bone is evidently flattened. The eyelids are puffy, but show no extravasation of blood, but there is some sub-conjunctival ecchymosis at the outer side of the right eye.

The patient was quiet during the day, and at 1.30 some milk, with two eggs beaten up in it, was injected into the stomach through a catheter passed along the floor of the nose, as he could not be induced to swallow. About 5 p.m. he began to toss about slightly, and his face suddenly flushed. The temperature in the axilla was 104·4, the pulse 172, and the respirations 48. An ice-bag was now applied to the head, which I had not ordered earlier on account of its depressing effect upon a patient still suffering from the shock of an accident.

On the second morning (15th) there was no change in the appearance of the wound. The conjunctival ecchymosis had extended to the margin of the cornea, around which there was some chemosis of the conjunctiva, and the eyelids were swollen and purplish in colour. There were no paralytic symptoms, but a good deal of restlessness. Temperature 105·3°; pulse 186, and soft; respirations 48. From this time to the patient's death, which occurred on the next morning (16th), at 2 a.m., there was no alteration of symptoms except a rise and fall in his temperature, which were remarkable. At 3 p.m. it was 106°; at 5 p.m., 106·4°; at 5.50 p.m., 106·5°; at 6.50 p.m., 106·3°; at 8.35 p.m., 106·2°; at 10.20 p.m., 106·1° (pulse 172; respiration 56); at 11.30 p.m., 106·2°; at 12.40 p.m., 106°; at 1.30 a.m., 107·1°; at 2.5 a.m., 106·8°. The breathing became distressed about 2 a.m., and he died at 2.10 a.m. Mr. Browne, the house-surgeon, had the energy to continue his observations of the patient's temperature after death, and they are of some interest. At 2.40 a.m. the temperature of the body was 107.6°; at 3.15 a.m., 107·1°; at 4 a.m., 106°; at 4.45 a.m., 106°; at 6 a.m., 101·6°; and at 7.30 a.m., 98·2°; after which the body was removed.

At the post-mortem examination, made by Mr. Godlee, we found the dura mater detached from the calvaria for some distance round the opening in the skull. The dura mater was of a blackish colour immediately behind the seat of fracture, and separated with very great readiness from the bone. A clot filled the superior longitudinal sinus. There were two or perhaps three small lacerations in the dura mater, caused by the fragments, and it was no doubt through these that the fluid escaped. The hole in the skull was as seen during life; but in addition we found that the supra-orbital ridge of the frontal bone had been driven in, though not completely separated, opening up the small frontal sinuses. The inner table forming the roof of the orbit was pushed back *en masse*, carrying with it the small wing of the sphenoid, and probably lacerating by the tip of the latter the anterior branch of the middle meningeal artery, for the dura mater was evidently much damaged at this point, and a clot lay between the dura mater and bone. The vessels of the pia mater were injected throughout. The convolutions, especially of the left hemisphere, were much flattened, and between them, under the arachnoid, was a large quantity of yellow lymph, extending on the left side over the front of the hemisphere, and reaching back as far as the fissure of Rolando, but not so far on the

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right side. There was a slight laceration of the anterior lobe of the right side opposite the fracture, and for a distance of half an inch or more inwards the brain-substance here was soft, dark red, and puffy. The rest of the brain was healthy, and so also were the thoracic and abdominal viscera.

This unfortunate lad died, then, from meningitis and laceration of brain-substance, the direct result of the extensive fracture of the frontal bone by the horse's shoe. I believed that he had got his death-blow when I first saw him, but of course proceeded to treat him in hope that, with youth on his side, he might pull through. I am sorry that the case occurred in the evening, so that comparatively few of you had the opportunity of seeing it in the early stage, for I often hear somewhat vague statements about the treatment of injuries of the head from students about to go up for their diploma examinations. The stock answer to a question as to the treatment of a case of depressed fracture of the skull, with symptoms of compression of the brain, is—"Trephine." Now, the fact is, the trephine is comparatively rarely used in depressed fractures, and the proper answer is—"Elevate." It may of course become necessary to trephine in order to elevate the depressed bone, but I want to guard you against the idea that you can relieve a depressed fracture by simply boring a hole in the patient's skull. There is a form of fracture in which the trephine should be always employed, I believe, and that is the punctured fracture in which a pointed weapon has made a small opening in the outer plate, but has driven in the inner plate in sharp fragments against the dura mater. In such a case removal of a large crown of bone with the trephine is the only and urgent remedy, and we had a very successful case of the kind in No. 5 ward some time ago.

When the bone is much comminuted, as in our case, the proceeding is exceedingly simple, and I was able to draw away all the fragments with a pair of strong forceps. If the fracture had been less extensive, however, it might have happened that the depressed fragment would have lain beneath a corner of sound bone, so as to prevent it being raised, and then it would have been necessary to saw off the corner with a Hey's saw; or, if it lay beneath an edge rather than a corner of bone, it would have been advisable to employ the trephine to remove a portion of the sound bone in order to admit the elevator. Let me remind you that the central pin of the trephine should always be fixed in sound bone, and that it should be withdrawn as soon as a groove has been cut sufficiently deep for the trephine to work smoothly in.

I show you here an old case of trephines which belonged to my grandfather, who was a naval surgeon at the end of the last century, and you will see that the trephines are conical and solid, whereas those belonging to the Hospital are cylindrical, and have notches cut in their edges for the bone-dust to escape by. It is curious how fashions revolve even in instruments; for the American surgeons have reverted to the conical trephines in the belief that they are safer than the others in being less likely to wound the dura mater, and I show you here a set of these modern trephines recently made for me by Mayer and Meltzer. In the old trephines the central pin was made to unscrew by means of a key, but in all modern instruments it is made to withdraw within the stem by means of a screw-nut. This latter arrangement has, however, the drawback that it is sometimes difficult to fix the pin securely. The old trephining case contains several instruments which are little, if ever, used now, though some of them are still supplied by modern surgical instrument makers. Thus, the "raspatory," with which surgeons formerly diligently scraped away the periosteum before applying the trephine, has been replaced nowadays by the handle of the scalpel, which is used to push aside and preserve the periosteum with a view to subsequent repair, rather than to destroy it, as was formerly done. Again, the "lenticular"—this button-headed sharp-edged tool for smoothing of the edges of the trephine hole—is not often required; whilst the "perforator"—a relic of the old trepan—is never employed in modern surgery. I show you here the ordinary "elevator," which has its edges curved to correspond to the trephines; but I have in my old case this obsolete form, consisting of a tripod covered with red velvet, on which, as a fulcrum, a steel elevator screws, so as to act as a powerful lever.

The occurrence of hæmorrhage is a serious complication of a case of fractured skull, for it generally arises, as in this case, from a lacerated sinus, in which a clot was found after death. Although at the post-mortem examination a branch of the middle meningeal artery was found to have been ruptured, yet the hæmorrhage at that point was very small, and the bleeding we had to do with, and which was considerable in quantity, was entirely venous. Pressure was the only available means of stopping the flow of blood, and I had no scruple in making this with lint inserted between the skull and the dura mater; and this was removed on the following day without any recurrence of the bleeding. I failed to discover any opening in the dura mater at the time of the patient's admission, but it became certain that an opening existed when we found clear fluid, obviously from the cavity of the arachnoid, exuding in some quantity on the following day. A wound to the meninges is really the turning-point in these cases of injury to the head, for, if the dura mater is uninjured, patients make extraordinary recoveries, even after great loss of bone; but the universal experience is, that if complicated by wound of the membranes, the injury proves fatal. As the patient lay in bed you had the opportunity of seeing how the dura mater rises and falls with each respiratory movement, and how the pulsation of the brain is readily seen.

Our patient was relieved by the elevation and removal of the depressed bone; that is to say, the stertor ceased to a great extent, the pupils became equal, and the pulse quickened. He did not, however, recover consciousness, and lay in a comatose state, passing his water in the bed, and unable to take nourishment. The first urine drawn off contained a considerable quantity of sugar, and this was due no doubt to the cerebral lesion, though the fourth ventricle of the brain, with injury of which this symptom is often connected, was found to be healthy. The non-recovery of consciousness was a most unfavourable symptom, for it pointed to injury to the brain; and the restlessness which supervened was doubtless due partly to the same cause, and partly to the inflammation of the meninges. It was quite certain that the right anterior lobe of the brain had been bruised at the time of the accident, and this was shown after death by the softened, dark-red appearance of the brain-substance at this point, as well as by a slight laceration. Within twenty-four hours of the accident, however, inflammation was set up in the meninges, as was shown by the rise in temperature, and the increased rapidity of both pulse and respiration. I did not think any object would be gained by undertaking any active treatment such as depletion or the administration of calomel, which I should have certainly ordered had the local mischief been less severe, but contented myself with applying an ice-bag to the head, which in the early stage of shock the patient could not have safely borne. The temperature went rapidly up, and for the last few hours stood at over 106°, and it was then suggested to me that I should allow the patient to be placed in a cold bath, so as to reduce this fatal height of temperature, as has been done in some cases of hyperpyrexia by the physicians of this Hospital. It seemed to me, however, perfectly hopeless to adopt any such treatment, the success of which does not appear to have been by any means uniform.

A symptom which arose on the day after the receipt of the injury deserves a word of notice on account of its importance. An ecchymosis of the eyelids following immediately on the injury is, as everyone knows, a common result of a blow over the eye, and, except from its unsightliness, is of little moment. In such a case the blood is principally beneath the conjunctiva of the eyelids, but may be under the ocular conjunctiva also. The case is different, however, when the lids escape, as in this patient, and the blood slowly appears by the side of the cornea, having come from the interior of the skull along the sheath of the optic nerve. It is then an evidence of deep-seated injury—probably fracture near the optic foramen,—and this proved to be the case here after death.

Another point in connexion with the seat of the injury in this case is, the age of the patient in relation to the development of the frontal sinuses. In a child the two plates of the frontal bone are in close apposition, and in a youth of fourteen the sinuses are very slightly developed; so that, although in this boy's skull they could be seen, they in no way complicated the diagnosis or treatment. It might, and has happened, however, that an injury inflicted upon the forehead of an adult in whom the frontal sinuses have been fully developed has driven in simply the outer plate of the sinus, and consequently what appeared at first sight to be a very serious lesion, proved after all to be comparatively trifling. On the other hand, the internal plate of the frontal sinus might be broken and depressed as well as the outer, and it might become necessary to employ the trephine for the patient's relief. Under such circumstances it would be necessary to employ a large trephine

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for the outer plate, in order to give room to apply safely the crown of a smaller trephine to the inner plate; and the same rule would apply in cases of punctured fracture involving the sinus.

ORIGINAL COMMUNICATIONS.

CASES OF NEUROSAL HEADACHE.

By C. HANDFIELD JONES, M.B. Cantab., F.R.S.,
Physician to St. Mary's Hospital.

(*Concluded from page 176.*)

Case 10.—Miss ——, aged 35 (?), naturally intelligent, and full of spirit; used to be a great horsewoman; her friends think she over-exerted herself. Has been an invalid for several years. She looks suffering; her countenance expresses distress. Can take hardly any exercise, nor make any exertion without suffering. After about three hours of drawing or reading is so fatigued she is obliged to go and lie down and keep perfectly quiet. Her distress is referred chiefly to the head and sacral region; the pain in the latter is compared to that which might be occasioned by scraping the part with a blunt knife; when it is better, the head is worse. At one time the head distress was such that a most excellent physician feared she was about to have brain fever—probably mania. During the head distress the part is rather hot. The only thing which seems to relieve her head is chlorodyne in fifteen-minim doses. Has at times a good deal of præcordial pain and palpitation, but no tendency to syncope. Bowels rather costive; catamenia are scanty; pulse good. Is apt to be sleepless when head is bad. Cannot sleep at a high elevation. Is always worse in cold weather. The last two or three years her right leg has become weak so that she cannot use it like the other. The muscles of the front and back of thigh and those of the glutæal region respond very languidly to faradisation; those of the leg are much more excitable. Her grandfather was gouty, and one of her brothers has gout. I saw her at intervals during three years and a half, and observed in this time the results of many remedies. Argenti nitras, the Virginian prune, aconite, belladonna with leptandrine, bromide of ammonium, lupuline, ol. morrh., strychnia, tannin, Wildbad baths, and very partially nitrite of amyl and iodoform, were used, but from none of them can I report any material benefit to have resulted. Belladonna in quarter-grain doses bis die, or even eighth-grain doses, "gave her a violent headache as it always does." Bromide of ammonium made her feel stronger, but caused headache, and took away sleep. Tannin gr. iij. with ext. hyoscyamus gr. j. in pil. ter die acted most decidedly as a laxative and aperient. Opiate enemata caused violent pain in her inside, lasting several hours, and a feeling as if the bowels were going to act, though they did not. The constant current she declared only weakened her. K. Br. in doses varying from gr. x. to ʒss. ter die was positively beneficial and was taken a long time; it gave her sleep, and kept her head pretty comfortable, but did not relieve the backache. Sometimes the K. Br. was taken at night only. Her head was also benefited by an ointment of atropia gr. j. ad glycerini amyli ʒj., and her spinal pain by morphia-dressed blisters and an opiate unguent. The paresis of the right leg seemed to be benefited by faradisation; it passed away in a little more than a year, and the left hip and thigh became affected, but not so much as the right had been. Her skin on two occasions for some days was very itchy and irritable, but no eruption existed. There were no symptoms specially indicating anything amiss with the pelvic organs, and though an examination was proposed, to obtain perfect assurance that the inveterate malady had not its starting-place in this quarter, it was declined by the patient, as she felt no trouble thereabouts. I believe she was right, and that the neurotic disorders were not of reflex origin. Little more was accomplished in this case than to relieve symptoms, yet the patient remarked two years and a half after I first saw her that she was very decidedly better than she had been two years ago. She became much stouter than she had been during the latter part of the time she was under observation, and her lower lids and feet became puffy. I have unfortunately no record of the state of her urine, except that it appeared at the outset clear and natural.

The headache in this case was a much more persistent disorder than in the others, yet this does not establish any essential difference between them. A disease does not change its nature because it is chronic instead of being acute. The prominent features of the morbid state were debility and deranged sensation. The former declared itself not only by incapacity for mental exertion, but by muscular weakness also, which amounted in the glutæal and femoral regions to incomplete paralysis. The derangement of sensation affected the head, the sacral region, and the cutaneous surface. In the first and third of these situations it assumed mostly the guise of hyperæsthesia, in the second of pain. The hyperæsthesia of the head evidently involved the brain, and cannot, I think, be regarded as a mere neuralgia of the coverings. The alteration of the mental character, the tendency to insomnia, and the imminent risk at one time of an attack of mania, make this tolerably certain. The occurrence of pruritus at times seems to me full of interest. This new phase of disorder occurring in a lower tissue and more accessible locality showed, so to speak, in a simpler way, the nature of the morbid action going on in the supreme nervous centre. An irritable skin intolerant of contact is no bad exponent of hyperæsthetic hemispheres. I have mentioned in a former paper two cases where cessation of cutaneous hyperæsthesia was immediately succeeded by mania or delirium. The coexistence of motor paresis with cerebral and spinal hyperæsthesia is significant of the true nature of the latter. The tendency of the disorder to shift to and fro between the head and lower spine was remarkable, as also its lateral displacement from one lower limb to the other; this seems to imply strongly the absence of actual organic lesion.

What, then, was the disease—the morbid changes which converted this cheerful, active young female into a pain-worn, chronic invalid? It is easy to say that she was nervous, a *malade imaginaire*, hysterical, and so on; but all this helps nothing towards a true pathology. Three main possibilities present themselves. The *causa mali* may have been *toxic;* the blood may have been rendered impure by some matter inbred in the system, as gouty or catamenial, or imported, as malaria or lead, or alcohol in excess; or some *focus of irritation* unfelt locally—say a flexion of the uterus—may have been the latent cause; lastly, the malady may belong to the extensive group of *essential neuroses*, where, excluding poisons and irritations, and overt lesions, the symptoms can only be referred to disordered action of the nerve-tissue itself. It must be admitted that the evidence adduced is far from complete under each of these heads, and that we can only judge from probabilities. Still, taking the facts as they stand, there seems to me more reason to incriminate toxic agencies, and especially the gouty diathesis, than any other cause. Gout, in its articular form, is comparatively rare in females, but as a brother suffered from gout it is by no means improbable that she might have had some modification of it. Migraine is recognised by Trousseau as a *manière d'être* of masked gout, and though my patient's malady was not migraine, it was not, I conceive, essentially different. It cannot be deemed improbable that various morbid substances besides that which produces gout are often generated in the body, and circulating in the blood, give rise to various disorders. Some day, a more refined chemistry than we now have will demonstrate them.

Among the ten cases recorded in this paper, two only were males. This large preponderance on the side of the females—eight to two—is probably accidental, as Dr. Liveing's much larger numbers show the proportion to be about five to four. As to age, four were probably under thirty, and five probably over forty, one about thirty-five. Hereditary tendency to headache was marked in three cases, and may have existed in others where it was not particularly inquired after. Gout was more or less prevalent in the families of (2), (3), and (10). Malaria seemed to be the cause in (7). Exhaustion and fatigue acted as provocatives of the attacks in (1), (4), and (7). Visual disorder occurred in (1) and (8). Hyperæmia of the head was apparent in (2), (8), and (9). Pallor of the face was marked in (7). As regards the process which conditionates the headache, I am strongly disposed to regard it as consisting essentially in failure of nerve-life, rather than in irregular accumulation and discharge of nerve-force. The state of the sufferers is, for the time, evidently one of prostration; and anything that depresses the general power, either temporarily or permanently, promotes the invasion or rivets the hold of the malady. In Case 1 the patient was evidently overworked. In Case 2 the attacks were preceded by a sensory paralysis, and their supervention was attended with loss of memory and sense of confusion; moreover, insanity was prevalent in her family. All this points quite in the direction of infirmity or actual failure of nerve-power. Case 3

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was unable to study more than two hours at a time from brain-fatigue. He had been preparing for examinations. In Case 4 the bad effect of worry and the good effect of recreation were very conspicuous. In Case 8 nerve-debility was extremely marked, and during the attacks her mental faculties were semi-paralysed, or rather more. In Case 9 there was good reason to believe that the sufferer had inherited an infirm nervous system; and there was also the fact, of like import, that she had been laid up for five years with paraplegia, which, as it had disappeared, was probably a neurosis. In Case 10 the general condition was one of chronic hyperæsthesia and debility. Good reasons exist, as I have long tried to show, why pain should be regarded as a kind of paralysis, and most of the concomitant phenomena of migraine —the anæsthesia, the occasional paralysis, the loss of memory, the aphasia, the confusion of mental faculties, the giddiness, and even the sickness—seem to me to belong to a state of lowered and deteriorated, not exalted or excited, nerve-force. Even should there occur in any instance disorder, such as convulsion, which might be deemed indicative of "irregular accumulation and discharge of nerve-force," I should still regard this as essentially homogeneous with the other symptoms, for the reason that it may fairly be referred to loss of the self-controlling power which belong to nerve-cells in the state of health. One of the marvels of the living body is that most nerve-cells while duly supplied with blood possess not only the power of evolving force, but also of regulating the discharge of that force. An athlete may stand ready for some great effort, with his nerve-cells charged as it were with force, or that which can produce force, yet not until the word is given is the energy poured out in forceful action. Surely all was in readiness before; the molecular matter of the nerve-cells continuous with the axis cylinders was on the verge of undergoing active change, yet remained quiescent. Of course this occurs under the influence of the will; but the point to be noted is that the will cannot always control a *deteriorated* organ. If the cell-controlling faculty is lost in the cord, we have paralysis agitans or chorea; if in the higher centres, we have epilepsy, hysteria, or delirium. The force-evolving faculty and the force-regulating faculty are usually enfeebled together, but either may be greatly impaired without the other being materially affected. The results in the two cases are extremely different, yet the loss of either may be reckoned a paralysis. Herein lies the connexion which has long been noted between Paralysis and Spasm.

GANGRENE OF THE LUNG IN CHILDREN.

By THOMAS C. HAYES, B.A., M.B., M.R.C.P.,

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(*Continued from page* 179.)

Case 2.—Girl, aged seven and a half years—Tolerable Constitution —Not Unfavourable Hygienic Conditions—Symptoms and Signs of Pneumonia—Prostration—Fetor from Breath—Fetid Expectoration—Hæmoptysis—Death—No Autopsy.

Lilly Y., aged 7½ years, admitted into King's College Hospital, September 14, 1873. Her father is said to be consumptive, but her mother has always been very healthy. There are six other children, all well. This child, though never looked upon as very strong, has not suffered from any previous illness, except chicken-pox and hooping-cough during infancy. A week before admission, without assignable cause, she complained of sharp pain in her left side, upon which she would frequently place her hand, and exclaim, "Oh! mother, my side aches!" In a day or two she began to cough and expectorate, and more than once, when near the child whilst coughing, her mother noticed an intensely disagreeable smell from her breath; "It made me," says her mother, "feel quite faint and sick." The child has continued to go out, but with no enjoyment, and prefers to crouch by the fire, as she feels "so chilly." The cough has grown very tiresome, and keeps her awake at night. The breathing is short and quick on any exertion; she has lost strength and spirits, and does not care to eat. She used to have a fairly good colour in her face, but now she is pale and thin. The bowels have been somewhat constipated.

September 15.—Present condition: Pale and thin; very languid, and pained expression; seems very prostrate—much more so than could be expected from the symptoms; she complains very much of pain in the left side just below the nipple. Coughs greatly on being made to sit up for examination, but there is no fetor from breath; tongue furred, but moist. On left side, from base of lung to angle of scapula, there is loss of resonance, but by no means marked. Vocal vibrations are diminished. The breathing is somewhat bronchial, and a few crepitant râles are audible—no friction-sound; over the rest of chest the breathing and percussion are natural. Heart's sounds normal. Pulse 120, weak; respiration 45; temperature 103°. Treatment: Poultice; ammonia and bark, and wine.

18th.—Coughing incessantly, so gets little sleep; expectoration abundant, thick, and purulent, intimately mixed with blood, not fetid; intensely fetid odour from breath, which comes and goes; the mouth and throat are healthy. The physical signs not altered, except that the dulness at left base is more marked. Pulse and temperature indicate hectic fever; they vary considerably at morning and evening visits, thus—last night, pulse 160, temperature 103·6°; and this morning pulse 102, temperature 99·4°.

The child continued in the Hospital till October 3, when she was taken out by her mother contrary to my wish. During her stay she became more cast down, and very fretful, though occasionally she would revive for a day or so. The cough was exceedingly troublesome, and she expectorated daily five to six ounces of purulent sanguineous sputa, which latterly exhaled a terrible odour. The expired air was equally fetid, but, unlike the expectorated matter, it from time to time lost the stench. The face grew very pinched and sallow, and the eyes had no brilliancy. The pulse and temperature continued to oscillate considerably (sometimes 6°, 4°, or 3° between the morning and evening observations). The respirations were rapid (40 to 60 per minute), and excited pain. The bowels were very constipated, and always needed castor oil to relieve them. She became emaciated, and had night-sweats. Her throat and mouth were never affected with any gangrenous change, and there were no laryngeal symptoms. The physical signs in the lungs did not vary much. The last note taken by Mr. Bayley, the clinical clerk, on October 1, says—"Decided dulness from base of left lung to the angle, and impaired resonance to the spine of scapula; but the dulness does not extend forward beyond the axillary line. Breath-sounds feeble and blowing, with crepitant râles. No gurgling or other signs of cavity; vocal vibrations diminished. Heart not displaced." The treatment adopted was stimulants and creasote inhalations.

Some time afterwards, induced by the striking similarity of the case in all its main features to that of W. G., I visited the mother at her own home to learn whether the child had recovered, and she communicated to me the following facts:—The child used to get up and sit by the fire. Her cough was "dreadful to hear," and the stench from her breath was so great that her father would hardly enter the room. On October 5 she seemed better, so her mother carried her downstairs and took her out for a short walk, in the hope that the fresh air might be of use. The child was greatly exhausted by the exertion, and slept more soundly that night than she had done since her return from the hospital. About 4 a.m. she woke up with a fit of coughing, and spat up about a teacupful of black fetid blood. On October 6 she was greatly depressed and not able to get up, and in the evening there was a recurrence of the hæmorrhage. The same thing happened on October 7, and she died that afternoon. No post-mortem.

(*To be continued.*)

ON LEPRA GRÆCORUM.

By GEORGE GASKOIN,

Surgeon to the British Hospital for Diseases of the Skin.

The following reflections are suggested to me by an admirable letter of your Madras correspondent, on leprosy and the early records found of it in Scripture, which appeared in a recent number. Addressing myself to the subject from this part of the world, I may say that his remarks on abnormalities of pigment are greatly calculated to interest, as what comes less before us here; but also there are other observations of his that are no less valuable than opportune. According to modern ideas, we are accustomed to refer to the sympathetic system of nerves all control over pigment, but it must be

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confessed that our knowledge about it is very far from being precise. The ancients, as is well known, under guidance of the humoral pathology, attributed the regulation of pigment to the set or flow of the melancholy humour which had its head-quarters in the spleen; and it was this humour that produced the spots of melas and every darker shade in the complexion. I may be pardoned for bringing once more into recollection this old world theory; it is from the ancients we derive our modern nomenclature, and, unless we revert to their ideas, we are in constant danger of perverting it. This has already within a few years been the case with lepra; there has been misinterpretation and divergence. The word *lepra* among the Greeks signified the highest degree of scaliness, the maximum of psora, the greatest scabies; and it is certainly beyond my conception that it could ever have deviated from this signification. The disease depended on black choler, which only produced the worst diseases—the same black choler that ruled in cancer, the same that ruled in elephantiasis, which "was a cancer of the whole body." Besides lepra, there were minor effects of itching, with scale, which the Greeks termed psora (our psoriasis), also dependent on the same humour. And, again, there was alphos (the *lepra alphoïdes* and *psoraisis guttata* of Willan), in all but intensity the same disease as lepra and psora; but alphos was so superficial and trivial in degree that the Greeks, and also the Latins, could not concede to it an origin in black choler, so they made it a separate complaint, and said it had its cause in phlegm, and they cut it off from lepra, and treated of it in their books quite apart. Just so with leuce, they kept it separate from elephantiasis, and always described it apart, because leuce, as they called it, depended upon phlegm, which humour, intermingled with the blood, produced certain local effects, and prevented the flesh from converting the nutriment to a redness, accordingly as Galen describes. And if it be said that in Herodotus the word *leuce* was used to express the elephantiasis of the East, as I believe to have been the case, it is to be remembered that this was in the earliest times, and before the rise and growth of the humoral pathology. So, then, upon merely theoretical grounds, these two affections—leuce and alphos—were separated from their congeners, and lepra in the old medicine appears a more considerable disease and in a more serious light than that which is generally spoken of among us as psoriasis ever since the predominance of the Vienna school. But when the leading dermatologists of the present day would supersede the word lepra—the one by the term alphos, and the other by psoriasis,—this must be with difficulty accepted, even under the plea of convenience, as being a lamentable distortion of the old nomenclature, extremely incorrect and barbarous.

But does not your correspondent concede too much to the spirit of the age when he supposes that in framing the Septuagint the LXX. could have erred in translating the Hebrew word "psorath" by *lepra* in the Greek? To me it seems sufficient that they have used a term which is not devoid of exactness, and which expresses a condition which is certainly akin to elephantiasis. But the proof of their exactness lies in the very same communication of your correspondent, where he says that in translations into Latin from the Syriac, the same word is rendered "impetigo." The Latins, as is well known, did not employ the term *lepra*. If we would know how the same affection was called in the Latin world, we may find it in the pages of Avicenna, which author, treating of the lepra Græcorum under another name, says—"Would you know what is this affection? it is no other than the *impetigo excoriativa*."

Now, we have but to follow the vein of Willan and look into Celsus for an explanation of this, and we shall find that of four species of impetigo described by Celsus, all of which may be called excoriative or corroding, the second and third are, or answer to, the psora (psoriasis) and lepra of the Greeks. The first of the four is the impetigo of Willan; the last or fourth is lupus. The description by Celsus is sufficiently plain, and the treatment also corresponds to this interpretation. It is remarkable that the third species of impetigo—that which represents the worst form of lepra—is called by Celsus the "black impetigo." He says "it is not altogether taken away," and it seems therefore akin to elephantiasis.

It may be well to quote the words of Avicenna in order to make the subject more complete. The Arabians we know had a terminology of their own, and it was under the name of the "black baras" that he describes the lepra Græcorum. "It is no other affection," says Avicenna, "than that which we call *impetigo excoriativa*—it is a sort of scabbiness that happeneth to the skin; it maketh scales as it were fish-scales, and it is accompanied with a melancholy humour, and it is one of those things that precede or go before the leprosy" (*id est*, the elephantiasis); and the commentators upon Avicenna agree to this fact, that it goes before the elephantiasis. But this is what your correspondent has seen in Madras: every variety of alphos, psora, and lepra conjoined with elephantiasis; as he says, "petty scaly spots like peppercorns (in size) all over the body, large patches of psoriasis, and the hippocratic lepra." No observation could be more valuable in establishing the affinities and analogies of disease, and it is the part of a good physician to consider them. And your correspondent speaks of the *plaga* or stroke which is antecedent to elephantiasis; but without this there is no lepra Græcorum. Whether this *plaga* be syphilis, or scarlatina, or diphtheria, or small-pox, typhus or typhoid fever; whether it be enthetic disease or miasm; or fall through inheritance from parents scorbutic, phthisical, or gouty or rheumatic, there is always this stroke or some antecedent or remote cause in parent or child; and my personal experience also enables me to give an assurance of the preponderance of lepra Græcorum in persons of Jewish blood, of whom I see a good number among my other patients. And here I will hold my hand. The subject of leprosy among the Jews is apt to run so much into length that I will say no more, hoping that this communication may be considered a not unworthy supplement to the welcome letter of your correspondent.

REPORTS OF HOSPITAL PRACTICE IN MEDICINE AND SURGERY.

ST. THOMAS'S HOSPITAL.

POPLITEAL ANEURISM, TREATED BY FORCIBLE FLEXION—GANGRENE OF LEG—AMPUTATION OF THIGH BY BLOODLESS METHOD—RECOVERY.

(Under the care of Mr. WAGSTAFFE.)

George P., a healthy but rather irritable Yorkshireman, aged 28, a groom, was riding a steeplechase in 1871, and received a blow on the left knee by another jockey's horse cannoning against him. He had a good deal of pain in the knee for some time, which he attributed to rheumatism; but this subsided, and it was only two months before admission into hospital that he noticed a swelling of the foot and at the back of the knee, and showed it at last to Dr. Whitaker, who recommended him to come into hospital for treatment.

At the time when first seen (September 27), there was a tumour in the popliteal space about four inches long by three inches wide, pulsating freely, decidedly soft. The circumference of the knee was thirteen inches and a half at the patella. There was no lividity of the surface. Only the very faintest trace of pulsation could be detected, and that doubtfully, in the posterior tibial artery, and none in the anterior tibial. The foot was cold. Flexion of the limb checked pulsation in the tumour.

On September 29 forcible flexion was commenced. The limb was first carefully bandaged with a flannel roller, a pad of lint placed in the popliteal space, and the knee bent until all pulsation in the tumour had ceased. In about two or three hours the man complained of so much pain that the flexion and pressure were diminished, and only partial control of the pulsation was effected. The foot and leg were wrapped in cotton-wool, and the man had small doses of morphia injected subcutaneously.

For the next three days the patient appeared to be doing well, but on the fourth (October 3), in the evening, the foot was noticed to be livid, and the toes dark and threatening to slough. The bandages were therefore removed, and the whole limb encased again in cotton-wool.

Next day (October 4) the gangrene had extended upwards to the knee, but was not limited. Mr. Wagstaffe therefore had the patient brought into the theatre, and performed amputation of the thigh by long anterior and short posterior flaps of skin, dividing the femur in the lower third immediately above the aneurism. In adjusting the elastic bandage, Mr. Wagstaffe began to empty the limb only from the knee upwards, so as to avoid disseminating through the circulation the products of the decomposition in the leg and foot. The

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femoral vessels, which were healthy at the point of division, were twisted, and not more than about two or three drachms of blood were lost during the operation.

From this date the man recovered rapidly. The temperature rose to 101·4° on the second day after operation, and fell rapidly to 98·6°, with a regular evening rise to over 100°. He was up in a fortnight, and remained in hospital another six weeks to restore his health, which had for some time been failing.

Remarks.—In this case it appears that the aneurism had almost prevented blood from passing into the limb below, for pulsation was excessively feeble at the ankle, so that any further check to the circulation in this extremity was likely to give rise to gangrene. Therefore, it is not surprising that gangrene here followed flexion, although it must be noticed that only for about two hours was the occlusion complete; for, after that time, a slight pulsation was allowed to occur in the sac. Whatever, therefore, had been the treatment for occluding the aneurism, it is more than probable the same result—gangrene—would have occurred; and if the occlusion had been more rapid, the gangrene also would have been more rapid. With regard to the operation by the so-called bloodless method, introduced here by Mr. Mac Cormac (in whose bed the patient had been received, but who was absent at the time), we believe this is the first case in which the elastic bandage has been used for the purpose of emptying only part of the limb. Mr. Wagstaffe explained that his object was to save loss of blood, which Esmarch's plan secured most effectually, but at the same time not to force into the circulation any of the products of active decomposition which must exist in the gangrenous limb. He therefore applied the bandage from the knee upwards. The situation selected—that of the lower third of the thigh—was one rather of necessity than of choice, for the skin showed signs of gangrene nearly as far as the knee, and the tumour in the popliteal space, which it was necessary to avoid, extended as far upwards as the point of section. The rapid progress of the case afterwards showed that no permanent ill effects had followed the gangrene.

Further Note on the Case of Ovariotomy reported on January 3:—
(Under the care of Mr. WAGSTAFFE.)

Eliza K., single (entered in our previous report by mistake as married), has progressed most favourably since the last note.

On December 30 the lower suture was removed without any retraction of the edges of the wound.

January 2.—Suppuration had occurred in connexion with one of the sutures, and this discharged to-day from the upper part of the wound.

3rd.—Bowels opened after enema of castor oil and internal administration of citrate of magnesia.

5th.—The patient was moved on to another bed.

12th.—Patient sitting up in a chair (nineteen days after operation).

14th.—The wound has been supported by broad strips of strapping and dressed twice a day. To-day patient walked across the room, but without leave.

17th.—Abdominal belt fitted on, allowing patient to move about freely (twenty-four days after operation).

20th.—Wound a mere line, not discharging. Patient able to walk about comfortably. She states she has been in more comfort since the operation than she has been for twelve months.

Her temperature during her progress has shown a curious similarity in variation from day to day. From midnight until about 1 or 2 a.m. it fell about half a degree, then rose slightly until about six, when it fell again about half a degree (Fahr.) by 10 a.m., and then rose steadily about two degrees until about 10 p.m. Its minimum daily was about 10 a.m., and maximum about 10 p.m.

TRIPLICANE DISPENSARY, MADRAS.

EXTRACT FROM THE ANNUAL REPORT OF OUT-PATIENTS FOR THE YEAR 1871.

By Honorary Surgeon MOODEEN SHERIFF.

I. SURGICAL OPERATIONS.

Case 1.—Organic Stricture, with a Fistulous Opening in the Urethra—Dilatation of the Canal with Wakley's Instruments in one sitting—Recovery.

M. G., AGED 38, male Mahomedan, second-class Hospital Assistant, having been removed from the Collectorate of Nellore to the Civil Dispensary at Mangalore, arrived here about ten days ago on his way to the latter place. Immediately on his arrival, I was requested by his friends to call and see him in his house at Triplicane, as he was in a dangerous state of health. On my visit, I found him very weak, emaciated, much altered in appearance; while he spoke with difficulty, and in a very low and whispering voice. Pulse 120 and very weak; skin warm and dry; tongue dry and white in the centre. He complained to me of frequent and painful micturition, with a stricture and fistulous opening in the urethra. On making an attempt to void his urine in my presence, he did so with much straining; and the most part of the urine passed in a large stream through the fistula, only a small quantity dribbling through the natural passage. The fistula was in the body and left side of the penis, about two inches and a half behind the meatus urinarius, and there was an unhealthy and irritable ulcer around its external opening. The patient did not allow me to pass a catheter to find the exact state of the urethra. He requested me to attend upon him in anticipation of his obtaining leave to remain at Madras till he was well, but I declined to do so until he actually obtained the leave, or was permitted to be treated at the Triplicane Dispensary. Meanwhile, however, I advised him to take the following mixture, dress the ulcer as directed, and feed himself with a good nourishing diet. ℞. Liq. potassæ ℥x., tinct. hyoscyami ℥xx., inf. pareiræ bravæ ʒjss., ft. haust., three times a day.

The patient is a sickly man, and has been particularly so during the last six or seven years. The stricture and fistula he is now suffering from are the results of a chronic gonorrhœa which he has been subject to, according to his own statement, for the last few years. Through the recommendation of Dr. Blacklock, the Inspector-General of the Indian Medical Department has permitted M. G. to be treated in the Triplicane Dispensary, and he is accordingly admitted into this institution this morning (July 1, 1871). He has been taking the medicine and acting according to my advice since I saw him last in his house, and has improved so far in his condition that he is able to walk a few steps with assistance. The urine is also less frequent, though the most part of it still passes out through the fistulous opening. The ulcer around the fistula is quite healed.

I attempted this morning, in the presence of Dr. Duff, to introduce a cathether, but he cried and struggled so much on the least touch of the urethra, that we thought it necessary to administer chloroform. This drug, however, did not produce the desired effect, though more than ʒjss. of it was used in two or three ways. I therefore postponed the use of the catheter till the evening. In the meantime I had examined his urine with the following result:—Colour, pale white or wheyish, and slightly turbid; reaction slightly acid; specific gravity, 1000; much albumen observed on applying heat and nitric acid; loaded with pus, for every drop of the urine displayed many corpuscles of it under the microscope; there was a small quantity of deposit, white like cream, which consisted of pus, and did not show any cast of uriniferous tubes under the microscope. It is clear from the above microscopic examination that the albumen in the urine is not owing to any disease of the kidneys, but wholly to the presence of pus from the urethra. 'Continue mixture. Vesp.: Having now used my own chloroform, I brought the patient under its influence with the assistance of Mr. Apothecary Ramsbottom and Hospital Assistant Syed Ally Mahomed. After trying a few catheters, I found the urethra so constricted as not to admit the use of any larger than the No. 1 or 2. Wakley's catheter being about the size required, I introduced it with some difficulty until it had passed much beyond the fistulous opening, and before reaching this point the instrument had to pass through two strictures, one immediately behind the meatus urinarius, and the other in front of the fistula; the latter was very tight, and delayed the operation longer than was expected. The steel rod was now passed within the catheter and screwed into it, and both these instruments were thus converted into a "directing rod." Then the graduated straight tubes in Wakley's instruments were made to pass over the directing-rod with circular or spiral movements from left to right successively up to the last (No. 10), to the extent of about four or five inches into the urethra, and thus the canal was dilated to its full extent in one sitting. The removal of the directing-rod from the urethra concluded the operation, during the performance of which there was almost no hæmorrhage (three or four drops). To have an opiate at bedtime if necessary.

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July 2.—I am glad this morning to find the patient cheerful, and informing me that he passed his urine in a full stream five or six times since the operation, and that only a few drops came out through the fistulous opening. He slept well last night, not being disturbed from frequent micturition; and there is also a wonderful improvement in all other respects. The urine is pale and clear, without any deposit; very few pus-corpuscles are observed under the microscope, and there is little or no albumen on applying heat and nitric acid; reaction neutral, specific gravity 1005. The pulse has fallen considerably in frequency (88), and the skin and tongue are natural. The only complaints he has now to make are of the scalding of urine while it passes over that part of the urethra which was operated upon, and headache. The latter is evidently attributable to the very large quantity of chloroform used yesterday. Omit mixture. The patient is directed to prevent the passage of urine through the fistula by pressing the latter between the finger and thumb during micturition, and also to apply a thin strap over it.

8th.—Since last report the patient has been passing his urine very freely, and in a full stream, and the fistula is also healed. The urine is clear, reaction slightly acid, specific gravity varying from 1005 to 1010, and no albumen by the heat and nitric acid test; but it deposits on rest a small quantity of sediment, which contains pus-corpuscles. As already mentioned by the patient, there is some gonorrhœal discharge from the penis on pressure, and this is the source of the small quantity of pus in the urine at present. The quantity and frequency of urine are still above their average in health, and the patient himself is very weak and anæmic. ℞. Tinct. ferri perchlorid. ℥xx., inf. quassiæ ʒj., three times a day. Dr. Montgomery's injection for gonorrhœa to be used two or three times a day.

11th.—Is improving gradually. Almost well of the gonorrhœa.

19th.—Though cured of the stricture, fistula, and gonorrhœa, the patient is very weak and broken down in constitution from previous suffering. He goes on two months' leave to Poonamallee for change of air and rest.

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Medical Times and Gazette.

SATURDAY, FEBRUARY 21, 1874.

INHUMATION, OR CREMATION?

(*Concluded from page* 182.)

If, then, cremation is free from the dangers and objections, as regards the living, inseparable from inhumation, and can be performed rapidly, economically, and without any kind of inconvenience or appearance of disrespect, why should it not be adopted for the disposal of the dead? We see only one solid, reasonable objection to it; and that is a medico-legal one. It would take away the possibility that now exists of detecting crime by the examination of bodies after they have been buried for even very many years. And not only would the hands of justice be crippled to this extent, but we should also lose what is no doubt a not slight barrier against the commission of crime—the fear of detection through exhumation and examination of the body. And, further, while the criminal would rejoice in his increased safety, and those tempted to crime would find their power to resist weakened by the lessened dread of detection; the innocent might have reason to deplore bitterly and in vain the impossibility of proving their innocence. Suspicion, or base insinuations, might dog a man's footsteps and darken his life, but all possibility of clearing his character by examination of the body of his supposed victim would be gone for ever. Dr. de Piétra Santa says that Drs. Polli and Castiglioni show that "the proceeding of incineration would procure for justice results immeasurably superior to those furnished by the resources of exhumation." We have not seen their pamphlets, and so do not know how they apply this to cases in which suspicion arises only some time after death; but Dr. de Piétra Santa himself and Dr. Coletti are content to reply—*Salus populi suprema lex esto*, and demand if the health of an entire population ought not to be considered before the impunity that could result in an exceptional case for a criminal? This may be a sufficient answer when the dangers from inhumation have become very general and great, but hardly till then. We have said that this medico-legal objection to cremation is the only solid and reasonable one we have met with; but a people is not always guided by reason, and objections may be very real and insurmountable, though not solid. Custom and usage are, with all their strength and weight, on the side of inhumation; and the poetry and sentiment of the affections cluster thickly round our churchyards and cemeteries round the *Gottes-acker* of the German; and though it may be more poetical and far less repulsive to be resolved into thin air and a handful of ashes, than "to lie in cold obstruction, and to rot," still, we suspect it will need the labours of more than one generation of enthusiasts to accustom the nation to the idea of cremation, and to prepare the way for a general acceptation of "this hygienic reform."

It must be allowed, however, that a deliberate, serious proposal for the adoption of cremation has not yet been advanced for a sufficient length of time, or with sufficient general publicity, to admit of any opinion being formed as to the number or weight of the objections that may be raised against it. But opposition to it has come from a quarter whence it could hardly, we think, have been expected. A learned professor has protested against it "in the name of anthropology and of phrenology"! He thinks that without the records of the tombs those who shall come after us "will incontestably find a grievous blank in history and science." We should have thought that the archæologists might safely trust to the printing-press, to the engraver, the painter, and the sculptor to represent us with sufficient fulness and accuracy to the ages yet unborn; but, even were it certain that these would fail in so doing, we fear that the health of the present age must be considered before the means of providing for the information of those who may come after us. The *salus populi* law would certainly meet this objection.

A quasi-religious objection has been suggested, rather than distinctly formulated, we think. It has been stated that inhumation is *the* Christian mode of disposing of the dead, and this because the body of Our Lord was lain in a tomb hewn out of the rock. If this is to be taken literally as a guide, it would require that all our dead should be interred i-

stone or stone-like vaults; and by the same sort of reasoning might it not be held that crucifixion has been so consecrated that it ought to be the mode of capital punishment in Christian countries?

But if some of the arguments for inhumation are ludicrous or mistaken, some of those put forward in favour of cremation are mistaken or repulsive. It has been said that the dread of premature interment would be effectually disposed of. We suspect that the dread of premature incineration would be at the least as great and terrible, and we agree with those who have recognised the necessity, if cremation is ever generally adopted, of establishing some certain and scientific method of proving the presence of death. Again, it has been affirmed that the adoption of cremation will do away, or greatly tend to do away, with the absurd and lamentable expense of the funeral ceremonies. This we do not at all believe. We take it that the mourners for the dead would accompany the body to the place of cremation as they now accompany it to the tomb, and that the service for the burial of the dead—the most sublime and touching of our religious services—would then, as now, be said over the corpse; and just as much pomp and display might, and, if people so willed it, would, disfigure the ceremony. A change in the direction of simplicity and inexpensiveness of funeral services has already commenced, caused by the rise of a more true and simple taste, and by the spread of this may become general, but not by a change from inhumation to cremation. The last argument in favour of cremation which we shall notice is the utilitarian one; and this may be so stated and enforced as to make the idea of cremation repulsive. It is true that, as already stated, by the law of nature the body of man after death returns to the ground from whence it was taken, and that through the changes which his dead body undergoes man restores to the storehouse of nature the gases and fertilising solids which during life he drew from it. But we think that it is not wise to insist much on the greater facility and rapidity with which the dead body may be made to do this if incinerated. We submit, therefore, with all due deference, that if Sir Henry Thompson really desired to advocate cremation, he made a mistake in giving such prominence, as he has done, to the utilitarian argument in his paper, to which we have before alluded, on "The Treatment of the Body after Death." He calculates the number of deaths in England every year, and the weight of ashes and bone-earth that the dead bodies would produce by cremation, and then suggests, if we read him aright, that by the proper use of these for the fertilisation of the soil we might save the half-million or more of pounds sterling that we now pay yearly for bones imported from abroad for this purpose. Now, the poet may draw some consolation from the thought that the body of his friend, who was to him more than a brother, is laid in English earth, and that

> "From his ashes may be made
> The violet of his native land,"

but that is altogether a different thing from deliberately manuring the soil with the ashes of the human body. And it appears to us that to mix up a suggestion for thus utilising the body with a recommendation of cremation is a sure way of making the idea of the latter repulsive and abhorrent to the public. By a perfect process of cremation all the volatisable parts of the body may be at once, rapidly and without offence of any sort, given to the air, to be assimilated by the vegetable world. Let that satisfy the cremation-enthusiasts, and let them leave the ashes to be inurned, or buried in consecrated ground, or dealt with in any other way that people choose, without calculating the value of them as manure. *The* argument in favour of cremation is, that we should thereby get rid of the danger to the living that is inseparably attendant on inhumation. But it will probably take long, even in these days of rapid changes of ideas, to make this effectively felt; and he would be a very bold Minister who would venture, for some time to come, we suspect, to introduce into any legislature even a permissive bill in favour of cremation of the human body.

HOSPITAL COMMITTEES.

A few weeks ago we took occasion to point out how the medical officers of hospitals can be, and sometimes are, treated by the hospital committees; and it appears to us that now the profession should seriously consider its relations to public medical charities, and particularly the position which medical men hold towards those who, vested by the subscribers with almost unlimited authority, constitute the committee. In not a few instances have committees greatly abused the power vested in them. Arrogance, ignorance, disregard of the views and interests of the actual workers, and a most extraordinary exaggeration of their own consequence, characterise many of the bodies entrusted by the charitable with the duty of disbursing what they give for the benefit of the poor. For a few pounds a year, and the votes of two or three friends, a fussy, officious, and busy—though really idle—man, without any fixed or engrossing occupations or duties, may obtain the right of persecuting for years, not one, but perhaps a dozen distinguished, earnest professional men, who are supposed to be working for modest salary, or no salary at all, under the beneficent dominion of kind-hearted philanthropists.

Not a few of our readers, we fear, will have to admit that, among the tormentors it has been their lot to meet in this world, not the least irrepressible have been members of a committee under whose "authority" they give without fee or reward much of their time, and perhaps the best part of their working life, for the benefit of the poor. Woe betide the doctor who offends the crotchety committeeman who has discovered a new dietary for hospital patients, or has proved to his own satisfaction, notwithstanding the protests of the matron to the contrary, that Sarah Jane is a better nurse than Mary Anne. Numerous resolutions in committee follow one another during the next six months, and at last the doctor is reprimanded, the matron dismissed, and the "authority" of the committee established upon a new basis of gruel and curry-powder. One sub-committee is appointed to superintend the issue of the new diets, another to see that the doctor does not order expensive medicines, a third to regulate the movements of the nurses and to prevent the new matron from exceeding her duties, and a fourth to take care that neither the milk nor the beef-tea is too strong for the delicate digestive power of the invalids,—and so on. These several sub-committees then make their reports, which are adopted by the general committee, and perhaps presented to the subscribers in an annual report. Votes of thanks are passed to everybody, and the unhappy staff doomed to another year's worry at the hands of their philanthropic tormentors.

Of course we do not mean to say that these evils exist or prevail everywhere, or that in every hospital the real management falls into the hands of the fussy, self-important members of the managing commitee; but we do say that this is too often the case, and that under the present system it may always and everywhere be the case, and that therefore the system is fraught with danger, and often works evil and injustice. Can nothing be done to change it? Will the public never discover that the medical staff of our public charities ought to work *with*, instead of being at the mercy of, the committee? In some few hospitals, every physician and surgeon is a member of committee by virtue of his office; but this wholesome rule we believe to be still the exception, while in many institutions there is not a single member of the staff on the committee of management. In several

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hospitals we are acquainted with, the physicians and surgeons, like the domestics and porters, are looked upon as the "servants" of the committee, and in some instances treated accordingly. We believe the public who support our medical charities are very desirous that the members of the profession who do the actual work should exercise some control over the administration, and be respectfully treated and sincerely thanked for their kindness and attention to the poor; but committees naturally like to keep power in their own hands, and by the ingenious device of a "medical committee" they manage to retain for themselves absolute authority, and delude the public. The "medical committee" "reports," while the "general committee" enacts. The secretary often possesses more real power than the entire medical staff; and in many instances all that the members of committee know of the staff is "reported" to them by this individual, who, as their officer and representative, exercises absolute power in a manner certain to earn their confidence and support. If the public is determined that many of the best men in the profession should be held in subjection by a few gentlemen, who perhaps have had little experience in hospital management, and know nothing of medical work or its duties, difficulties, and responsibilities, there is no help for it. It is, however, perfectly clear that the great interests of the medical charities would be more fully considered and better provided for if the public would insist that the responsibility of administering the funds and managing the paid officials were shared by the medical staff upon whose intelligence, care, and devotion the good effected by hospitals depends, and who alone earn for the institution its reputation.

THE CONJOINT SCHEME FROM AN EDUCATIONAL POINT OF VIEW.

CERTAIN facts relating to the scheme of education adopted by the Committee of Reference for an Examining Board under the Conjoint Scheme have reached our ears, and are to our mind so very serious as to demand immediate notice and prompt condemnation. This is the more important, inasmuch as the scheme, though in spirit adopted by at least one of the examining bodies concerned, has not yet been finally received; and so there is still time left for that reflection which proverbially follows a foolish action—fortunately in this case not yet irremediable. The first point with regard to the new scheme to which we desire to advert is, the relegating of botany and chemistry to the preliminary examination if the student so pleases; for, if he can pass in these subjects then, he is not called upon to attend any course in them during his medical curriculum. Now, to the spirit of this we are not opposed. It is much better that there should be some examination and instruction in botany than that there should be, as seems to be desired by some, none at all; but what amount of chemistry that will be of the slightest use to him in medical practice can a student acquire before joining his school? It would be far better if the young man were to be examined, say, in elementary or inorganic chemistry and in physics—which seem in the proposed scheme to be entirely omitted at his preliminary examination; and then, when he joins his school, his attention should be directed solely to organic chemistry, which finds no place under the proposed regulations.

But the most extraordinary part of the scheme consists in the changes as to the most important courses of study qualifying a man to practise medicine. Henceforth the student is only to be required to attend one course of anatomy, one course of physiology, one course of medicine, and one course of surgery. This certainly seems to us to be going rather fast and rather far in the wrong direction. True, the student is required to dissect for two winters; but that he has to do now. He is to attend a course of practical physiology; but that may be a summer course. And two extraordinary courses have been invented, called respectively "practical medicine" and "practical surgery," each of which has to be attended; but the so-called course of practical medicine need consist of only twenty meetings, that of practical surgery extending over six months.

Now, here is the scheme for each of these. That of practical medicine is to include the application of anatomical facts to medicine on the living person or on the dead body; the method of examining various organs in order to detect the evidence of disease; the employment of instruments used in diagnosis; the analysis of excretions as altered by disease. Now, as regards the first three, they surely constitute the basis of clinical teaching in every school in the world; whilst as regards the last, if it means anything at all, it means that the lecturer on medicine is to instruct the pupils in pathological chemistry, for which there is no provision in any other part of the course. But there are in London many first-rate physicians who would hesitate about undertaking such work; and men who have attained to what is justly considered the post of highest honour in a school are hardly likely to care to undertake such duties—duties which ought to belong to the teacher of chemistry. The scheme for the course of practical surgery is to all intents and purposes similar, save, of course, that operations and the study of morbid specimens are introduced; but all this now goes on, in every well-regulated school, over and above the regular course of lectures.

So, then, this precious scheme comes to this: that the student is to learn, in a single course of each, all the anatomy, physiology, medicine, and surgery he requires to practise his profession! Can anything be more absurd?—nay, more, is such a thing possible, either for teacher or student? The argument has been advanced that this will save the student's time; he will not have to listen to the same lectures twice over. But what single course of lectures can include a full and fair amount of any one of these subjects? In what properly regulated school is the same ground exactly gone over each year? Everyone engaged in the honourable work of educating men for our profession is bound to protest against such an insinuation and against such a retrograde policy.

But if anything was wanted to cap this, we find it in the scheme for the final examination. That is to be upon medicine, surgery, midwifery, and the diseases of women; but questions on forensic medicine and hygiene will be included among those set on the above subjects. Surely we are going back to the dark ages at railroad speed. A man has to attend courses on these subjects, hygiene being, however, conveniently relegated either to forensic medicine or to medicine itself, which is, after all, only a six months' course. Why not, then, examine on them separately? Moreover, as regards examinations, the pernicious system of examining on anatomy and physiology conjointly is to be continued. Surely this little bit of reform as to a separate examination might have been conceded, so that if a man is rejected he may know what for. Why should not a man be sent back to learn his physiology, as well as to his dissections, for so many months?

We have not here indicated half the objectionable features of the proposed scheme; we have only indicated those which lie on the surface. And we regret to state that it is roundly asserted that it is the Oxford spirit which has animated this most pernicious scheme. If Oxford has utterly failed as a school of medicine, there is no reason why she should exert herself to ruin medical education generally. No man who is interested in the improvement of medical education can look upon such a scheme with any other feeling than that of profound regret. The only argument advanced in its favour is, that if the course prescribed is not sufficient for the wants of the student, he will seek more instruction. This is an outcome of that doctrine against which we have so often protested, that the only proper test of a man's qualifica-

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tions is examination. But it is impossible to examine every man on every thing; and the only mode of obviating this difficulty is to take care that he shall have had instruction of proper quality and amount in every subject. Examination is not everything; a man must be *trained*, and those engaged in medical education know only too well that the average student will do nothing beyond what is prescribed for him by those who are to give him his diploma. As Sir William Jenner once well said, "If I can get a man to the bedside, I can teach him something; but how am I to get him there?" In the meantime, the only way men can be got to attend lectures is because they must be signed up; but if that is no longer essential, we fear the result will be disastrous. We never liked the Conjoint Scheme; but this its latest outcome we like least of all. The latest and most sarcastic comment on it we have heard was to this effect: The "heads of the profession" find that the average medical man is by far too intelligent—they want him put back a bit. A scheme which could for a moment seem to justify such a remark must carry with it its own condemnation.

DISCUSSION ON PYÆMIA AT THE CLINICAL SOCIETY.

The debate on pyæmia which was opened at the Clinical Society on January 23 by an address from the President, Mr. Prescott Hewett, was adjourned to, and continued on, February 13. The large number of members and visitors present proves the interest felt in it, and the spirit and vigour with which it was carried on, in turn, sustained its interest. Were we disposed to cavil, however, we might object to its vague and desultory character; and it was clear from the commencement that no determinate idea was held as to the precise points raised by the President's address, and which ought therefore to be considered the ones at issue.

Mr. Hulke saw this defect, and took an early opportunity of drawing the attention of the Society to it.

Again, there is no denying that the term pyæmia has very different significations, and stands for very different groups of phenomena, with different speakers. There is a wide gap to start with between those who, on the one hand, regard the disease as a certain general state of the system attended with phlebitis, thrombosis, and metastatic abscesses, and not allied to erysipelas; and those who, on the other hand, regard it as a blood disease associated *or not* with any or all of these three conditions, and as being of the same nature as erysipelas and septicæmia, and standing between them in its degree of intensity.

Our space this week does not permit of a full report of the proceedings of the meeting, so that we will now present our readers with a brief outline of the views expressed by the several members who addressed the Society.

Dr. Bastian made some remarks upon the presence of germs as an agent of the disease. He opposed the notion of their aërial origin, or that their presence in discharges from wounds was due entirely to their having been conveyed by the air. He based his opposition to this opinion upon the results of microscopical examination of the discharge from various suppurating wounds, and also of the contents of bullæ in a patient under his care suffering from pemphigus. These discharges contained bacteria, leptothrix, and other germs in great abundance; but from the very condition under which the discharges arose, the germs could not have been conveyed to them from without by the atmosphere.

Mr. Henry Lee, too, expressed a very decided opinion that there is error in attributing too much influence to the germ-conveying power of the atmosphere. The contact of dirty fingers, sponges, and other substances has quite as much, if not more, influence in giving rise to blood-poisoning. While admitting the great value of carbolic dressing, he thought its *modus operandi* was mainly the exemption it afforded to wounds from such untoward contact, and also its power of preventing the development of germs. This latter power was seen by placing a bowl of yeast side by side with a dish of carbolic acid. In this experiment, though there was no contact between the two substances, yet the yeast was prevented from rising while the air about it was saturated with the carbolic acid vapour. He supported Dr. Braxton Hicks's view that in a discussion on pyæmia it was quite impossible to do justice to the subject if pyæmia were dissociated from allied diseases—such as erysipelas, puerperal fever, septicæmia, etc.,—which were often prevalent at the same time and in the same localities, and the poison giving rise to which was frequently carried by the medical attendant from patient to patient.

Mr. Hulke remarked upon the difference between septicæmia and pyæmia, and referred to experiments by which pyæmia with and without purulent deposits in the tissues of the animals experimented on could be produced by injecting non-putrid puriform fluid and flocculent pus respectively into the veins; while rapid death from septicæmia, before abscesses could arise, results from the injection of putrid or decomposing animal or vegetable fluids. He made some very pertinent observations upon the connexion between embolism and pyæmic abscesses, and asked what it was in pyæmic patients that caused abscesses to be formed in connexion with embolic plugs, whereas in other persons emboli occur, as may be seen in the retina and elsewhere, without at any time being associated with abscess.

Mr. Erichsen spoke well and at length upon the President's address. He criticised hostilely but most courteously the cases which were related in the address as pyæmic. Relying upon the reports of that address in the medical papers as correct, he could not but come to the conclusion that some four or five of the cases therein contained were not pyæmia at all—understanding as he does by pyæmia a blood disease, associated with phlebitis, venous thrombosis, and metastatic abscesses. Some of them appeared to be nothing but simple secondary abscesses, and two were, he thought, erysipelas—a disease, in his opinion, of a different nature altogether from pyæmia. In a long series of years he had rarely or never seen pyæmia in private practice, and he thought that the best argument in favour of its rarity away from hospitals and crowded wards was the fact that the talented author of the address was able to bring forward only so few as twenty cases which had come under his observation during as long a period as that to which he (Mr. Erichsen) could personally refer.

We cannot help remarking here that though the brevity used in reporting these cases prevented their pyæmic character from being fully set forth, yet it is quite impossible to suppose that a surgeon of Mr. Hewett's well-known judgment and care would report cases as pyæmia if they were merely instances of secondary abscess or cases of erysipelas. In fact, as he himself showed in reply to Mr. Erichsen, they were beyond all question true pyæmia.

Mr. Savory, in an admirable speech, gave a very lucid exposition of his own views of the origin, nature, and alliances of the disease. He presented his audience with a wide grasp of the subject, and his remarks bore directly upon the points raised by the address, and gave an explanation of the mode of development of pyæmia alike applicable to its origin in private and hospital patients.

Mr. Savory said that while, previously, attention was directed chiefly to the internal conditions favourable to pyæmia, of late it had been too exclusively addressed to external conditions. And while it is admitted that the importance of investigating these latter cannot be exaggerated, it may be questioned whether the last error is not greater than the first. The source

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of the disease is the absorption of septic materials from dead or dying matter by the living parts in contact with them. The action of the air is merely that of an auxiliary of the processes of decomposition, and in this way acts in the chambers of private patients and in the crowded wards of a hospital. While one person will escape pyæmia in spite of all neglect of measures of hygiene, another will succumb even though such measures are thoroughly carried out.

But how is it, he asked, that we may sometimes get pus of the most offensive kind, exposed to the action of foul air and gases, pent up in the body for days, weeks, and months—as in ischio-rectal abscess—without setting up pyæmia? This immunity is, he thinks, obtained through the dialysing action of the tissues. Where there are healthy granulations no absorption of septic poison takes place. He animadverted the opinion that there is any necessary or constant relation between phlebitis and pyæmia, and remarked that, while we see phlebitis without pyæmia, thrombosis without pyæmia, and abscesses without pyæmia, so we see pyæmia without phlebitis, without thrombosis, without pus.

He cannot recognise any fundamental distinction between pyæmia and septicæmia, for these diseases do not differ in their nature from one another. Nor does he consider erysipelas different in its nature from pyæmia; it is, in fact, frequently associated with pyæmia, and he is glad to accept it as a milder substitute for pyæmia in patients attacked with blood-poisoning. Cases of blood-poisoning vary most widely in their intensity; and there can be little doubt that the effects are modified both in character and degree by the form as well as the dose of poison which induces them; but it is not practicable to separate such cases into distinct or well-defined groups. On the contrary, it is possible to produce a case of septicæmia or pyæmia to order, by infecting the system with pus which has been kept a longer or a shorter time.

We shall look forward with much pleasure to the resumption of the debate, but we advise that in the meantime some intimation be given as to the direction which it is desired the discussion should take. Pyæmia is a very wide subject, and one which can be looked at from a number of points of view; but its very vastness necessitates that a discussion upon it should be defined, to save it from being vague and unsatisfactory. It seems to us that Mr. Hewett's address suggests questions as to the frequency, mode of origin, and propagation of pyæmia in private practice—questions as to the internal as well as the external conditions which favour pyæmia—questions which, if they can be answered, will help to throw much light upon the subject of pyæmia as it occurs in hospitals. There is no doubt about true pyæmia occurring amongst private patients, and there can be as little that it lies within the power of many of the members of the Society to tell us something about it in their private practice. Has it been coincident with other blood diseases? has it been conveyed by the attendant or nurse? what have been the hygienic conditions around? what the state and constitution and previous diseases of the patients? These and other such-like points might be spoken upon with advantage; and their elucidation would be more *apropos* of the particular occasion than debating doubtful features of difference between pyæmia and septicæmia, or by any irrelevant remarks upon the symptoms or treatment of pyæmia.

THE WEEK.

TOPICS OF THE DAY.

Dr. Lankester, in his last fortnightly report to the St. James's (Westminster) Vestry, states that the papers of instructions as to the rearing of children had been gladly received where they had been distributed, and he now proposed to apply to the Superintendent Registrar to allow the registrar of each district to give one to each person registering a birth. During the fortnight there had been seventeen deaths in the parish, being thirteen below the average, and only one death had occurred from zymotic disease.

The Sanitary Committee, at the last meeting of the Vestry of St. Marylebone, brought up a recommendation suggesting that the salary of Dr. Whitmore, the public analyst of the parish, should be fixed at £100 a year. Dr. Whitmore had worked for the parish for twelve months without asking for any remuneration. Now that period had expired, the agreement which existed between the Board and the Committee must be carried out. The Committee were unanimous in their recommendation. It was accordingly moved that Dr. Whitmore's salary be £100 a year. A debate ensued. Mr. Emery objected to the motion, and moved as an amendment that the salary be £50 a year. Mr. Hiscox seconded the amendment. After some further discussion the original motion was carried, and the Vestry adjourned. Vestrymen in their corporate capacity seldom properly appreciate talent and industry on the part of their officers. Niggardliness and parsimony are the proverbial characteristics of a vestry board; and that a proposal so moderate as a salary of £100 a year should have met with any opposition might excite surprise had it been raised in almost any other public body. The duties of a public analyst are not only highly responsible, but require much skill and scientific knowledge in their fulfilment. The amendment proposed by Mr. Emery, seconded by Mr. Hiscox, was almost tantamount to an insult to Dr. Whitmore, whose high qualifications, efficiency, and industry should have insured unanimity on the question. He is eminently worthy of more liberal and generous treatment than is accorded to him by some members of the Vestry of St Marylebone.

The promoters of the Hospital Saturday movement in London held another meeting last week at Albert-gate. A letter had been received from Sir Sidney Waterlow, in which he asked that no further steps should be taken in the matter until he had an opportunity of speaking with the Committee on the subject. "The work," added Sir Sidney, "was commenced at the Mansion-house. Last year several hundred pounds were paid in from the working classes. The work will be continued at the Mansion-house, and we hope to have your co-operation. It will be fatal to have two organisations at work." It was determined that a letter should be written to Sir Sidney, asking for further information on the subject; also, that the offices of the Committee shall be at St. John's Hospital, Leicester-square, and that until further notice the Committee shall meet at St. John's Hospital every Saturday. Sir Sidney has on this occasion given another instance of his sagacity in the conduct of public affairs. We agree with him that nothing could be more disastrous to the cause in question than a divided responsibility; and everything suggestive of a division of interests should be strenuously opposed.

Dr. Letheby's resignation of the office of Medical Officer of Health for the City of London was accepted by the City Commissioners of Sewers at their meeting held on Tuesday. The following motion was adopted:—"That a letter be forwarded to Dr. Letheby, thanking him for his services during the time—twenty years—he had been medical officer, and expressing the regret of the Court at the cause of his resignation."

The Registrar-General's weekly return for London, ending Saturday last, states that 1597 deaths were registered, showing ninety below the average. The deaths included fifty-three from measles.

Mr. Reginald Harrison, F.R.C.S., has been appointed Surgeon to the Liverpool Royal Infirmary.

Dr. A. L. Galabin has been appointed Assistant Obstetric

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Physician to Guy's Hospital, in place of the late Dr. Phillips; also Assistant-Physician to the Hospital for Sick Children, Great Ormond-street.

THE NEWS FROM THE GOLD COAST.

If the latest intelligence received *vid* Lisbon from the seat of war be correct, the "beginning of the end" may be said to be approaching, and another illustration will have been afforded of the utter inability of savage, half-armed nations to encounter disciplined troops. The force with which Sir Garnet Wolseley has crossed the Prah is perfectly insignificant as regards numbers, yet the telegrams assert that great consternation was caused everywhere the column appeared, and upon only one occasion has the slightest resistance been offered to our advance. Here, at a village on the Adansi hills, the appearance of the Naval Brigade and the Rifles sufficed to scatter the enemy with the loss of several men.

The occupation of Coomassie by our troops—the *sine qud non* of the expedition, as showing the perfect subjection of the Ashantee power—is reported to be only a question of days, the return-march of the force having been fixed for the 7th inst., and the re-embarkation at Cape Coast Castle of the last of the European contingent for March 1 next.

The country round Coomassie is stated to be dry and healthy. The transport difficulties have been at last overcome, and no exceptional report of sickness has been received. The worst period would appear to have been the time of enforced idleness at the Prah, when the first break-down in the carrying arrangements occurred. Doing nothing, and nothing to do in such a climate, produced the inevitable results, and the medical staff, which up to that date had been without patients, soon had their hands full. Surgeon-Major Turton, who has taken the place of Surgeon-Major Gore as sanitary officer to the expedition, is stated to be very energetic in supervising all details for preserving the health of the men at the different camps and halting-places, and Surgeon Lowe has been ordered to join the Akim force under Captain Butler. The employment of Captains Glover and Butler and all European officers under them appears to be a most lamentable exposure of valuable lives without any adequate result. Captain Glover's force receiving pay numbered 25,000 men; when ordered to advance against the Ashantees, it is rumoured that 700 men obeyed the order. Captain Butler, with the 2000 Akims he had raised after indefatigable exertions, reached the Prah—a distance of twelve days' marching—in six weeks; he crossed, followed by his European officers, but his army positively refused to cross!

Some dissatisfaction has been raised by a rumour that the extra pay granted to all officers taking part in the Gold Coast expedition would be withheld from a portion of the medical staff (presumably those who are doing duty off the coast); but we trust there is no foundation for such a report, which would be palpably unjust, and could only have been advocated by the most cheese-paring policy.

As regards the arrangements for the return of the troops to this country, the *Himalaya* will bring back the 23rd Regiment, the *Tamar* will re-embark the Rifle Brigade, and the *Sarmatian* the 42nd Highlanders, whilst the *Manitoban* will transport the Royal Artillery and contingents.

The concluding portions of the telegrams received from Lisbon suggest that large, airy ships should be provided at Cape Coast Castle as a precaution against fever breaking out through relaxation after the excitement and hard work. We should imagine that Sir Garnet will take care that no unnecessary delay occurs in the sailing of the different transports for this country; and the excitement of the return home, with the [illegible] into higher latitudes, should be sufficient to keep the men [illegible]ealth until our own shores are reached. In any event the *Victor Emmanuel* will be at hand—as large and airy a vessel as could well be desired.

SANITARY AFFAIRS IN BIRMINGHAM.

Dr. Alfred Hill, Medical Officer of Health and Analyst for Birmingham, in his report for the quarter ending December last, states that the number of deaths registered in the fourth quarter is greater than in any other quarter of the year—viz., 2395, consisting of 1199 males and 1196 females. The total indicates a death-rate of 26·95 per 1000 of the population—not so high a proportion as might have been expected when the prevalence of certain zymotic diseases is considered. Small-pox has again considerably increased, 214 cases having been reported during the last quarter, against 124 in the third, 171 in the second, and 246 in the first quarter. Of the 195 who were vaccinated, only 24, or 12·31 per cent., have died, while of the 18 unvaccinated, 10, or 55·56 per cent., have died. The total deaths from the seven zymotic diseases were 576, equal to 6·48 per thousand of the population. The previous quarter, owing to the prevalence of diarrhœa, the rate was 9·3 per 1000. The zymotic disease which proved most fatal was scarlatina; it caused 213 deaths. Measles were also fatally prevalent in the latter part of the quarter. The deaths from this cause numbered 87. Dr. Hill also reports that during the quarter ended December 27, 1873, twenty samples of food, drink, and drugs were submitted to him for analysis by the Inspector of Nuisances, comprising eleven samples of tea, five of mustard, two of citrate of magnesia, one of flour, and one of beef-dripping. Four of the samples of tea were variously adulterated with quantities of sand, magnetic iron, mica, plumbago, Prussian blue, lie-tea, etc., ranging as high as 5·36 per cent. Of the five samples of mustard, two were genuine, three were adulterated with flour and turmeric; two of the latter were labelled "not warranted genuine," and in these two cases no legal action had been taken, but the third had been brought before the Court, and a conviction obtained with a penalty of 5*s.* and costs. One of the two samples of citrate of magnesia was designated on the *lucus a non lucendo* principle, for it contained no magnesia whatever; the other contained a very small quantity only, and both consisted mainly of tartaric acid, carbonate of soda, sugar, and flavouring matter. It is very much to be regretted that articles should be sold under other than their right names. No proceedings had been taken in either case. The sample of flour was genuine, or, at least, contained only minute traces of alum. The so-called beef-dripping consisted of mutton fat. There is a very marked improvement in the quality of the teas sold in the borough since the above prosecutions were instituted.

THE INDIAN MEDICAL SERVICE.

In a brief review of the proceedings of the year 1873, the *Indian Medical Gazette* of the 1st ult. says—

"We have endeavoured to pronounce judgment on the prominent medical questions of the day, more particularly as they affect India and the medical services. Royal warrants have issued during the year, whose avowed intention was the improvement of the status and organisation of the British and Indian medical departments. The British Medical Warrant excited a storm of dissatisfaction, both at home and abroad, which a second warrant has failed to quell; and there is still a strong feeling that army doctors are not treated with that liberality and justice which, from their profession and position, they have a right to expect. The Indian Medical Warrant was so unimportant a document that it hardly excited a passing note of comment. The titles of all ranks underwent a change, and that was all, unless perhaps we except the circumstance that two years' military employ is no longer a necessary qualification for promotion to the rank of surgeon-major. This will be looked on as a boon or a blunder by different officers. For our own part, if we are to continue a military service, we incline to the latter view. The great reforms in the organisation of the medical services in India which have so long

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appeared to us imperatively necessary—namely, the welding of the military medical services into one, the establishment of a proper administrative relation between civil governments and administrations and the medical department, and the abolition of the so-called sanitary department, or its fusion with the medical, so as to constitute one health service, are still in abeyance. We have from time to time indicated the imperative need of some change whereby harmony of action, economy of labour, and propriety of organisation may be effected, and we can only once again hope that the matter has not been finally shelved."

THE NEW PARLIAMENT AND THE CONTAGIOUS DISEASES ACTS.

The agitators for the repeal of the Contagious Diseases Acts are deeply lamenting the failure of many of their most energetic friends in the late Parliament to be re-elected. Not only has Mr. Fowler, who introduced the Bill for the repeal of the Acts last year, lost his seat for Cambridge, but more than sixty of his supporters have also been relegated to private life, including Messrs. Jacob Bright (Manchester), E. Baines (Leeds), Peter Rylands (Warrington), and Professor Fawcett (Brighton). During the election at Oxford, a deputation of opponents of the Acts waited on Mr. Cardwell and Sir W. V. Harcourt to endeavour to extract from them a promise to support them in the House of Commons. Both gentlemen, however, declined to give any pledge, and the former said that he held in his hand a Parliamentary paper which stated that the Contagious Diseases Acts had been productive of good moral results, especially among the younger members of the forces, and that the physical results were even stronger in favour of the Acts.

THE HERBERT PRIZE AT NETLEY.

The Herbert Prize, which consists of a sum of money—between twenty and thirty pounds,—and which is competed for annually by the candidates for the Army, Navy, and East India Services during their probation at the Army Medical School, Netley, has this year been awarded to Mr. G. T. Langridge, who obtained the aggregate maximum of marks in the preliminary and final examinations, and who, as we last week published, passed out at the head of the list of those about to be gazetted surgeons in the army.

"MEMOIR OF PROFESSOR JAMES SYME."

Our readers will be glad to learn that a volume with the above title has just appeared from the pen of Dr. Robert Paterson, of Leith. The author gives an interesting account of the education, early professional life, and ultimate success of the great Scotch surgeon, and supplies many details of the most notorious circumstances connected with his career, including the polemics in which he so actively engaged. The book ought to be widely read by the profession.

ST. MARYLEBONE GENERAL DISPENSARY.

The question of making the St. Marylebone General Dispensary self-supporting is under the consideration of the directors of the charity. This change has been suggested to the governors as a remedy for the unsatisfactory state of the funds, the expenditure last year being more than a third in excess of the income.

OBSTETRICAL SOCIETY OF LONDON.

We understand that the next ordinary general meeting of the Society, to be held at 8 p.m. on Wednesday, March 4, 1874, will also be made special to consider the following resolution, proposed at the last meeting of the Council:—

"That, it appearing that the by-laws and regulations framed on the foundation of the Society did not contemplate the admission of women as Fellows, the Council is of opinion that the question ought to be submitted to a general meeting, to decide what shall be the proper interpretation of the actual by-laws and regulations, or so to alter the by-laws and regulations as to express clearly the intention of the Society as to the admission of women."

This, we hear, has special reference to the admission of Mrs. Garrett-Anderson, who desires to become a member of the Society.

LONDON ANTHROPOLOGICAL SOCIETY.

At a meeting of this Society, held at 37, Arundel-street, Strand, on the 17th inst., Dr. R. S. Charnock, F.S.A., President, in the chair, the following paper was read:—"On the Castellieri of Istria," by Captain Burton, V.P.L.A.S. For years there have been reports of a network of ruins on the coast of Istria and at Kherso, locally known as Castellieri. Some antiquaries supposed them to be Roman, but Captain Burton has found that they are built on quasi-Cyclopean foundations, and are full of weapons and stone axes, all belonging to what has been termed the areolithic age. The late Professor Kandler considered these remains to be Celtic, but M. Tomaso Luciani, of Albona, first proved them to be prehistoric—a generalisation which is thoroughly corroborated by the facts discovered by Captain Burton. Drs. Carter Blake, Leitner, Messrs. Carmichael, Leurs, and the President joined in the discussion on the paper.

EDINBURGH UNIVERSITY.

It is contemplated to make some very important additions to the buildings of the Edinburgh University, such as theatres, students' class-rooms, laboratories, etc., the total cost of which will probably amount to £100,000. Although as yet no public appeal for funds has been made, £37,000 has been promised towards the object.

MORTALITY AND DISEASE IN SCOTLAND.

The Registrar-General's report for the month of January last states that the deaths of 2668 persons were registered in the eight principal towns of Scotland during the month, of whom 1358 were males and 1310 females. Increase of population being allowed for, this number is 440 below the average number for the month during the last ten years. A comparison of the deaths recorded in the eight towns shows that during January the annual rate of mortality was 18 deaths per 1000 persons in Perth, 23 in Leith, 26 in Edinburgh, 29 in Glasgow, 30 in Dundee, 31 in Greenock, 32 in Aberdeen, and 33 in Paisley. Of the 2668 deaths, 1041, or 39 per cent., were of children under five years of age. In Perth, 24 per cent. of the persons who died were under five years of age; in Greenock, 31; in Edinburgh, 36; in Aberdeen, 37; in Dundee, 39; in Glasgow, 41; in Leith, 42; and in Paisley, 45 per cent. The zymotic (epidemic and contagious) class of diseases proved fatal to 612 persons, thus constituting 23 per cent. of the whole mortality. This rate was exceeded in Dundee and in Paisley from the prevalence of scarlatina; in Aberdeen from the prevalence of measles, scarlatina, and fever combined; and in Greenock from small-pox and scarlatina.

UNIVERSITY OF DUBLIN.

At the Spring Commencements, held on Shrove Tuesday, February 17, in the examination hall of Trinity College, the following degrees and licences in medicine and surgery were conferred by the Right Hon. Sir Joseph Napier Bart., Vice-Chancellor of the University:—*Baccalaurei in Medicinâ:* Edouardus Allingham, Thomas Booth, Johannes Dudley, Morgan Fox Hamerton, Georgius Alfredus Lewis, Hercules H. MacDonnell, Carolus Fredericus Murray, Gulielmus J. J. Welch. *Magistri in Chirurgiâ:* Alexander Macauley Bredon, Hercules MacDonnell. *Doctores in Medicinâ:* Johannes Hawtrey Benson, Ricardus Theodorus Stack, Gulielmus J. J. Welch. *Licentiati in Medicinâ:* Edouardus Johannes Lawder, Robertus Rut

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Licentiatus in Chirurgiâ: Robertus Ruttle. The degree of Master of Arts was also conferred upon Dr. Thomas Wrigley Grimshaw, *stipendiis condonatis*, in recognition of his distinguished answering at the recent examination for the qualification in State Medicine.

KING AND QUEEN'S COLLEGE OF PHYSICIANS IN IRELAND.

At an unusually large meeting of the Fellows, on Friday, the 13th instant, Dr. John Mallet Purser was unanimously elected to fill the chair of Institutes of Medicine in the School of Physic in Ireland. The high honour thus conferred on Dr. Purser is but a fitting recognition of his researches in the domain of physiological and pathological science. Author of an essay on the "Pathology of the Diseases of the Spinal Cord and Medulla Oblongata," which carried off the gold medal of the Pathological Society of Dublin in 1863, he has since contributed many papers of high scientific value to the literature of the English physiological school. Among these we may mention a communication on the physiological action of bromide of potassium, and experimental researches on Cohnheim's theory of inflammation. The latter paper is to be found in the *Proceedings of the Royal Irish Academy*. We have no doubt that Dr. Purser will, in the capacity of a professor, fully justify the choice of the College of Physicians. By his appointment, a Lectureship on Physiology in the Carmichael School of Medicine, and one of the Physicianships to the City of Dublin Hospital, fall vacant. Dr. R. J. Harvey will become Senior Lecturer on Physiology in the Carmichael School, and Dr. J. Magee Finny will most probably succeed to the Hospital.

PROFESSOR HALFORD'S REMEDY FOR SNAKE-BITES.

The Australian papers record another case of the successful treatment of snake-bite by Halford's method of the injection of ammonia into the veins. The patient, a young man, was nearly comatose when admitted into the Beechworth Hospital, but regained consciousness immediately after the operation, and from that moment continued to do well.

YELLOW FEVER AND CHOLERA IN SOUTH AMERICA.

At Rio the mortality from yellow fever continues much the same; there was a decrease of only four deaths during January. A few cases of the fever were occurring in the harbour at Pernambuco. The cholera epidemic in Buenos Ayres was declining, but cases had occurred in the ports to the north. The inhabitants were leaving Buenos Ayres and other affected cities, and strict sequestration of towns is generally causing a stagnation in trade. In Monte Video a few cases had created an alarm, and the Uraguayan squadron having become attacked, it had been sent north to quarantine at the extreme frontier.

INDIAN MEDICAL SERVICE.

The following is a list of candidates (in order of merit) for H.M.'s Indian Medical Service who were successful at the competitive examinations held at London in August, 1873, and at Netley in February, 1874, after having passed through a course at the Army Medical School at Netley, together with the total number of marks obtained. (Maximum number of marks, 6900.)

	No. of Marks.		No. of Marks.
1. Wilcocks, A. J. .	5215	7. Collis, J. G. . .	4284
2. Moloney, T. . .	4671	8. Wilkins, T. J. H.	3955
3. Deakin, C. W. S. .	4544	9. Bartholomens, Z.M.L.	3510
4. M'Kay, H. K. . .	4505	10. Thompson, P. . .	3105
5. Swaine, F. R. . .	4390	11. Ross, R. E. . . .	3057
6. Allison, H. . . .	4297		

William Kilvey was fined last week by the Sheffield Bench £100 for offering for sale the carcase of a pig unfit for human food.

KING'S COLLEGE HOSPITAL AND ST. JOHN'S HOUSE.

(*From a Governor of the Hospital.*)

For nearly eighteen years the nursing of King's College Hospital has been admirably conducted by the sisters and nurses of St. John's House, but the Committee have recently discovered, according to their vice-chairman, General Sir H. C. B. Daubeney, that "for the maintenance of their authority in the management of the Hospital" it has been "found necessary" to give the sisters and nurses notice to quit; but it is remarkable that many former committees managed during fifteen years to maintain their authority, although the sisters and nurses worked in the Hospital. The "General" further informs the governors of the charity that "the Committee are prepared to organise a nursing staff, which will be entirely under *their* (the Committee's) *own control*." This is, no doubt, very desirable from the General's point of view, but possibly the profession and the public may desire to be furnished with (1) the particular reasons which in the Committee's opinion have rendered necessary at this particular time such a very sweeping change, and (2) with evidence that the General and his coadjutors are qualified to *organise a nursing staff*.

A "report" has just been forwarded by the Committee to the governors "on the subject of the impending separation from St. John's House." This "report" is a remarkable document. It consists of upwards of forty closely printed pages, and a careful perusal has convinced the writer that the "impending separation" really is inevitable. It is perfectly obvious that the sisters and nurses can no longer work under the present Committee, but by no means probable that *any other sisters and nurses could do so*. These gentlemen have quite failed to show that the present sisters and nurses would not be able to work under *another committee* for another period of seventeen years, as well, as heartily, and as much for the good of the institution as they have done for the past seventeen years under old committees. It would seem that the present Committee is one of no ordinary kind. The document it has put forth seems to show how difficult it is for some people to abstain from interfering in matters which do not concern them, and from harassing and annoying real workers and helpers and relievers of woe in this world in the discharge of very difficult duties.

There is no room for doubt concerning the idea the Committee have formed of their paramount authority,—no doubt whatever as to their determination to be *obeyed*,—no doubt of their desire to interfere in many little matters of no possible consequence to committees or to men in general. But it is evidently considered requisite that their authority should extend into the minutest particulars of administration, and that their influence should be felt in the discharge of every domestic duty. They must be familiar with the names of every sister, nurse, and probationer. They must be able to trace each one as she is transferred from one ward to another, or from the Hospital to a private family. A little history of the movements of each nurse must be kept, and properly posted up. Not a nurse is to be moved out of one ward into another without the fact being registered and reported to the Committee. They have furnished an example of what they want: "October 4, 1872.—The case of Nurse —— was brought before the Committee of Management. This was a valuable nurse, who had been removed from the Hospital some time previously without the attention of the Committee being called to the circumstance." "That the secretary be directed to call the attention of the sister in charge to Clause 10 of the agreement, in reference to Nurse ——'s removal." The sister in charge informs the Committee that the nurse in question left the Hospital for her holiday; but on October 5, 1872, the secretary was directed "to thank the sister in charge for her letter, and to express the Committee's regret that Nurse —— should have been absent," etc., etc. "October 18.—On this day a letter of this date from the Lady Superior of St. John's House, as to Nurse ——, was laid before the Committee," etc.; and so on for a page. Then on January 24, 1873, the matter is again referred to, and more resolutions adopted as to Nurse ——. But I will not further inflict any more records of such meddlesome trifling upon your readers.

Let me rather try to discover the reasons why the Committee

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have given notice to St. John's House. In page 1 of the report issued by the Committee we are told that in February and April, 1871, "complaints were made by the House Visitors and by the Senior Physician of the Hospital respecting the *constant change of nurses* in the wards, and the weakness of the staff." This is referred to on many subsequent occasions as a "subject of complaint, both by the principal physicians and surgeons, and the resident medical officers of this Hospital." "The Committee *know positively* that the statements of their medical officers are correct." On November 8, 1872, they again state their attention "has been drawn by the *medical officers* to the continuance of frequent changes in the nurses." These allegations form the starting-point from which many further complaints proceed, and an excuse for further demands for more stringent rules to bind the nursing staff, and place them completely under the dominion of the Committee, is founded thereupon.

From a general perusal of the document put forward by the Committee, a reader would suppose that they were supported by, and had long been acting in accordance with, the expressed views of the medical staff. Indeed, from some remarks it might be concluded that the staff had complained of the nursing. But, instead of this being the case, we find that last year a letter was written in support of the existing system of nursing, and signed by nearly the whole of the in-patient staff, while the letter printed below, which is signed by all the physicians and one of the surgeons, has just been sent to the governors of the charity. In this matter, therefore, the Committee are clearly acting against the expressed views of the principal medical officers, and in direct contradiction to what the medical officers believe to be the true interests of the patients.

But the real aim of the Committee is clear enough. They and their secretary are evidently determined to have more absolute control over every individual working in the Hospital than any committee of this particular institution have ever exerted or desired to exert before. What is "objectionable to the Committee" is, that they have not sufficient power now to *enforce* "obedience." In a single page of their report we have the following expressions:—"Obey the directions of the Committee of Management;" "obedience to the Hospital authorities;" "amount of respect paid to the directions of the Committee;" the "enunciation of the right to this obedience will be valueless if the Committee have not the power to enforce that right,"—and more, showing how dear to the Committee is their authority and importance, and how strong their desire to make everyone feel this in his or her work.

But how have the patients been nursed? Though this is not considered in the report, year after year this very Committee have borne testimony to the excellence of the nursing, the cleanliness of the wards, etc. There are no complaints as to the nursing. St. John's House has, however, been attacked on the score of expense; but, as no excuse for dismissal could be grounded on this, the Council of St. John's having perhaps offered to meet the wishes of the Committee on this head, they discover another grievance, and make that their ultimatum. *The sister in charge must be removed.* But, strange to say, this same Committee of Management "fully recognise the indefatigable zeal, skill, and tenderness towards the patients" exhibited by this lady, and bear testimony to the "present efficiency of the nursing of the Hospital under her superintendence"! Surely there never was such an extraordinary series of charges. They seem to dissolve into nothingness one after the other as the mind tries to grasp them.

But again, what the Committee want is clear. They require a provision that the whole nursing staff is to "obey" them. They want to have the name, age, and other particulars of every nurse, and power to "require" the sister in charge to report to them on all matters; they want the power of removing any member of the nursing staff without right of appeal to anybody except the General Court of Governors; they want to have complete control over every individual nurse employed by St. John's House, although she owes allegiance to the sisterhood only. In short, this Committee want to destroy a system of nursing which, according to their own showing, has worked well for a great number of years, and to experiment with an untried system which they hypothetically conclude will be satisfactory to them, because (as General Daubeney suggests) it will be "entirely under their own control."

We cannot be surprised that the Council of St. John's House decline to place their sisters and nurses individually under the control of the Committee in question and their representative, the secretary; and we think everyone who reads through this correspondence will not only agree in the decision at which they have arrived, but be astonished at the forbearance uniformly exhibited by the Council and members of St. John's House towards the Committee.

The view taken by the vice-chairman of the Committee of King's College Hospital is expressed still more plainly in his letter to the *Times* of Monday last. He appears to look from a military point of view, and to dictate as a pure disciplinarian. He expects the public to support the authority of himself and his colleagues, and firmly stickles for all the rights and privileges conferred upon the Committee by Act of Parliament. He seems almost to forget the patients, for whose benefit the work of all—committee, doctors, and nurses—is carried on, and without whom the Hospital would be without meaning; and he quite ignores the medical staff, under whose care the patients are placed, and upon whose labours the reputation of the Hospital in the eyes of the public depends. The Committee are to be all in all. The Committee claim absolute power, and there is no doubt concerning their inclination to enforce very strict discipline indeed. The Hospital might soon rival a prison in the rigidity of its regulations, the secretary being made its governor, while the doctors and nurses would be, according to the new constitution, mere *employés* of the Committee, living only to do their bidding and execute their orders. But what think the public? Will they hand over the sick and suffering poor, and scarcely less suffering doctors and nurses, who it is admitted have done their duty well hitherto, to the tender mercies of such arbitrary authorities and rigid disciplinarians?

"St. John's House and King's College Hospital.

"*To the President and Governors of King's College Hospital.*

"Your Royal Highness, My Lords, Ladies and Gentlemen,—When we first knew that differences existed between the Committee of Management and the ladies, who, for seventeen years, have nursed our Hospital so much to our satisfaction, we, as members of the In-patient Medical Staff of King's College Hopital, felt it to be our duty to address the Committee of Management, and to assure them that, in our opinion, 'any change which would remove the nursing from the care of the Sisters of St. John's House is greatly to be deprecated, and would be calamitous to the Hospital and to the interests of the patients.' Unfortunately our remonstrance has proved ineffectual, and we understand, to our great regret, that the Committee has given the Sisters of St. John's House six months' notice to quit.

"The success of the work we perform in your Hospital, and the welfare of our patients, are so intimately connected with the efficiency of the nursing, that we look forward with much apprehension to the proposed substitution of a new and untried system, for one that we know, from daily experience, to be thoroughly good.

"We earnestly trust, therefore, that it will be your pleasure to submit the whole question to impartial arbitration. If this were done, we should hope that some arrangement might be arrived at by which we and our patients would not be deprived of the valuable services of the members of St. John's House; or, if that be found to be impossible, we would then at least have the assurance, which we certainly do not now feel, that substantial justice has been done.

"We have the honour to be,

"Your Royal Highness, My Lords, Ladies and Gentlemen,

"Your most obedient Servants,

"George Johnson,
"A. B. Garrod,
"John Wood,
"Alfred Baynard Duffin,
"W. S. Playfair,
"Lionel S. Beale.

"King's College Hospital, February, 1874."

A MEETING of the Society of Medical Officers of Health will be held at the Scottish Corporation Hall, Crane-court, Fleet-street, on Saturday, February 21, when Dr. Tripe will read a paper "On the Density of Population, and other Causes which affect the Rate of Mortality in the Metropolis."

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LETTER FROM THE GOLD COAST.

(*From our Special Correspondent.*)

Cape Coast Castle, January 21.

Military Hospitals at Cape Coast Castle; their Construction and Arrangements—Cases under Treatment in them—Cases in the "Victor Emmanuel"—Surgeon-Major Mackinnon, C.B.—Amount of Sickness among the Troops—Health at the Front—Arrangements for the Removal of Sick Troops and for the Re-embarkation at the end of the War—Precautionary Measures against Yellow Fever.

There are two military hospitals at Cape Coast Castle—viz., the general hospital (situated in the town, at a short distance from the Castle) and the temporary hospital at Connor's Hill. The former, a strongly built stone structure, has accommodation on the second floor for fifty-one patients, besides a ward with eleven beds in the basement storey, which is not now occupied. In the same basement are the pharmacy and apothecary's stores, two huts in the vicinity being also appropriated as drug stores. Surgeon-Major J. G. Faught is the medical officer in charge of the general hospital; and Captain Collin, of the Army Hospital Corps, has charge of the medicines and medical appliances.

There is not much to be said in favour of either the situation or the mode of construction of the general hospital; but the most has been made of the place, and the wards are clean, well kept, and wholesome. The temperature in the verandah at the time of my visit (4 p.m.) was 85° Fahr., being nearly 4° higher than that indicated by the thermometer on the main deck of the hospital-ship at the same hour. The number of patients under treatment yesterday in this hospital was seventeen, all of them being Europeans. Within a short distance of this are two wooden huts, occupied by men of the West India regiments. These are low structures, about four feet in height at the eaves, with a moderately sloping roof, the highest part being not more than seven feet. There is ridge ventilation, with a door in either gable, and two windows, four feet in height by two feet and a half in width, in the side of each hut, the number of occupants being ten. These huts struck me as being much too low, close, and hot for the comfortable accommodation of European sick; but their African occupants seemed quite happy and contented, their ailments being of a trivial nature. The cooking and nursing arrangements are performed by natives, under the supervision of trained and competent men of the Army Hospital Corps, and, as I am informed, leave little to be desired.

At Connor's Hill there are three wooden huts for the accommodation of men, and one for sick officers. The situation is the best that could have been selected, being a plateau some 200 feet above the sea, a short distance from the town on the Coomassie road.

The huts are well constructed and roomy, with good ventilation by means of ridges, windows, doors, and roof, and will conveniently hold ten men apiece, the officers' hut being adapted to accommodate six.

Additional space may be obtained by means of a marquee, now pitched in the close vicinity of the huts. The Connor's Hill hospital establishment is under the immediate supervision of Surgeon F. R. Wilson, M.B., late of the 47th Regiment. In addition to the above, Christ's Church has been fitted up as a hospital for the reception of twenty-two wounded men, should the necessity arise.

Of nine officers treated on shore during the past week, one was a case of pleurisy, one a case of dysentery, the remaining seven being cases of fever of a remittent or intermittent form, due to climate and exposure. Of sixteen men of various European corps treated in hospital on shore during the same period, two suffered from erysipelas, one from sunstroke, one from fracture of tibia (accidental), one from ulcer (footsore), one from pneumonia, one from hepatitis, and the balance from fever in one or other form—ardent, continued, or periodic, of the remittent or intermittent varieties. As a rule the fevers are mild and tractable, but they are followed by an amount of debility and depression quite out of proportion to their severity and duration, and convalescence in this exhausting climate is a tedious business. In a few instances they are complicated with congestion of one or other lungs, going on to solidification, and the prognosis is at present doubtful, to say the least, in such cases.

During the week just ended there were ten admissions from the shore to H.M.'s hospital-ship *Victor Emmanuel*, and seven from other ships in harbour. This evening there are to be twenty cases sent off from the shore, and nine of the second battalion 23rd Fusiliers from the *Tamar*. Of the arrangements for the removal through the surf of sick, and for slinging the cot cases on board the hospital-ship, I hope to give you a short account in my next letter.

Surgeon-Major Mackinnon, C.B., who arrived here in the *Sprite* on January 12, from Madeira, has taken over the duties of principal medical officer of the expedition, and proceeded to the front on the 17th. He brings out an extensive field experience acquired in the Crimea, India, and New Zealand, and is reputed to be an officer of great decision and force of character.

The Medical Department is unusually strong out here at present, numbering on paper one deputy surgeon-general, nineteen surgeons-major, and fifty-eight surgeons. Of these, Deputy Surgeon-General Home, V.C., C.B., Surgeon-Major A. A. Gore, M.D., Surgeons S. Robertson, M.D., E. Connellan, and Nugent Wade, have already left for England in ill-health, and, if rumour be true, several others are likely soon to follow. In no previous expedition has there been so strong a contingent of doctors, embracing, as they do at present, nearly one-fourth of the entire force of officers employed on shore; and before the embarkation of the army for England it is not improbable that there may be a reasonable amount of work for them all to do. *Absit omen!* There has been so much sickness among the officers of the Royal Engineers and of the Control Department, that those left available for duty are said to be greatly overworked. The amount of sickness among the men of the Army Service Corps and Army Hospital Corps at Cape Coast Castle is unduly large, relatively to the strength of their respective detachments; and of those now under treatment a considerable number will have to be sent home for change of climate.

In a letter of the 16th, a friend at Prahsu speaks well of the climate of that place, as compared with Cape Coast, and says that there was very little sickness when he wrote. In a subsequent communication he reports sickness to be on the increase, chiefly fevers.

The arrangements made at this date for the reception and removal of sick troops, and the re-embarkation of troops in health, with the view of removing them from the Gold Coast on the termination of the Ashantee expedition, supposed to be about the end of March, are as follows:—

For Sick.—H.M.S. *Victor Emmanuel*, s.s., stationary at Cape Coast, fitted for 250. H.M.S. *Simoom*, stationary at Cape de Verde, can accommodate sixty to seventy. H.M.S. *Dromedary*, s.s., (thirty to forty cots); Transport No. 11, *Sprite*, s.s., (thirty cots); Transport No. 13, *Thames*, s.s., (forty cots), will run between Cape Coast and St. Vincent, Cape de Verde Islands, one every ten days. Five steamers—three of the Union Cape Mail Company, and two of the Royal Mail Company—will call monthly at Cape de Verde, and convey homeward in the aggregate ninety-two patients.(a) Two steamers of the British and African Company will call at Cape Coast Castle monthly homewards for about twenty-four bad cases or forty debilitated patients. Of the smaller steamers remaining on the coast, the *Adela* has been named for attending upon the *Simoom* at Cape de Verde; and the *Lilian*, capable of accommodating, with a little arrangement, twelve to fourteen sick, remains at Cape Coast Castle, to be dealt with as the Commodore may instruct the principal transport officer. The *Ilione*, sailing ship of 750 tons, could be utilised, when clear of coal cargo, as an auxiliary for the sick, if thought expedient, and should circumstances arise to render such a course necessary.

The force on the Gold Coast, exclusive of native auxiliaries, is (about)—of Europeans, three battalions of 650 each, 1950; Marines, 400; other corps, such as Artillery, Engineers, Army Service Corps, etc., 250; making altogether 2600 Europeans; besides of West India troops, 1000; giving a gross total of 3600 men. The officers number about 220.

The following tabular statement gives the number of officers

(a) Stores will be sent by these steamers.

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and men that can be received as troops, and also the number of cots provided for sick on, board the respective vessels :—

	Officers.	Men.	Cots.
H.M.S. *Himalaya* . . .	50	800	100
H.M.S. *Tamar* . . .	46	800	100
Transport No. 12, *Sarmatian* .	52	800	100
H.M.S. *Simoom** . . .	30	400	60
Transport No. 6, *Manitoban* .	35	550	80
H.M.S. *Dromedary** . .	18	100	24
Transport No. 13, *Thames** .	21	200	40
Transport No. 11, *Sprite**. .	14	100	24
H.M.S. *Victor Emmanuel** .	6	—	250
Total . .	272	3,750	778

The *Thames* is fitted for 200 men, but could be made to accommodate 100 more. The ships marked thus (*), though included in the arrangements made for the reception and removal of the sick, are repeated, with a view of showing the power available for the removal of the whole force on emergency, such as suggested by the memorandum of Surgeon-General Sir Wm. Muir, K.C.B., M.D., of the Army Medical Department, relative to the possible appearance of yellow fever at Cape Coast Castle.

In addition to the above, the *Elizabeth Martin*, transport No. 14, and the steamship *Lancelot*, now *en route* to the Gold Coast, are capable of accommodating troops as follows :—

	Officers.	Men.	Cots.
Elizabeth Martin . . .	13	300	80
Lancelot	6	100	30
Total . .	19	400	110

Having detailed the very complete arrangements proposed for the removal of the troops and sick from the Gold Coast under ordinary circumstances, it may not be uninteresting to friends at home and to your professional readers generally to give a brief summary of the steps which have already been taken to protect Cape Coast Castle against the introduction of yellow fever from without, and of the transport arrangements proposed by the Admiralty in the event of this disease making its appearance.

1. A very strict quarantine has been established at Cape Coast Castle, under the superintendence of Dr. Walter Reid, R.N., and the same is rigidly enforced in the case of all vessels entering the harbour.

2. Should the arrangements already given for the accommodation and removal of invalids and for the embarkation of the entire force with the least possible delay be interfered with by the outbreak of yellow fever, and should any of the troopships be required to serve as a hospital for ordinary invalids instead of the *Victor Emmanuel*, or to return to England, another vessel or vessels will be at once despatched to receive and take away the troops thus left unprovided with conveyance.

3. For the purpose of circumscribing the disease (should it appear) within the narrowest limits, the purchase has been sanctioned of the *Ilions*—a transport now on the coast,—and she is to be fitted up as a fever depôt for the reception of individual cases as they may occur, her European hands being removed from here, and a crew of Kroomen substituted. This vessel will be securely moored at a distance from the other shipping, and a hospital surf-boat and steam pinnace will be set apart for the conveyance of patients thither.

4. Should individual cases of the disease appear on board the hospital-ship *Victor Emmanuel*, they are to be conveyed at once to the *Ilione*, so that the *Victor Emmanuel* may, if possible, continue to serve as a hospital-ship; but in the event of yellow fever establishing itself on board, this vessel is to be at once despatched to a northern latitude, her place on the coast being taken by the *Himalaya* or *Tamar*.

5. Should the disease break out on board either of the troopships *Himalaya* or *Tamar* while acting as an auxiliary hospital-ship, the other troopship will take her place, and a second transport will be despatched from England for the conveyance of troops.

6. In the event of yellow fever occurring on board H.M.S. *Simoom* at St. Vincent, Cape de Verde, she is to be at once removed from the island, and the transports, etc., bringing ordinary invalids from Cape Coast Castle, *en route* for England, will be ordered to await at St. Vincent the arrival of mail steamers by which they could be sent home.

7. It must be left to the local authorities, naval and military, should yellow fever become epidemic on the station, or threaten to do so, to adopt such measures as under the circumstances they may deem most expedient; and these must be determined by considerations as well of a military as of a medical character.

FROM ABROAD.

Epidemic Goître.

In some recent numbers of the *Gazette Médicale* (January 10 and February 7), Dr. Michaud gives an account of one of those curious epidemics of goître which every now and then break out in the French army. This one occurred during the months April to September, 1873, in the 75th Regiment of the line, stationed at the garrison of St. Etienne. Of the mean effective of which the garrison during this period consisted, there were about 280 soldiers who became the subjects of goître. Dr. Michaud, however, is not able to give an account of all these cases, but only of fifty of them who were sent to the Hôtel-Dieu of St. Etienne, of which he is surgeon.

Sometimes the affection came on with gradual tumefaction of the neck without other symptoms, but in other cases it was attended by pain, dysphagia, congestion of the face, difficult respiration, and inability to march. The tumefaction was at first diffuse, soft, and indolent, but soon the tumour became large, indurated, and well defined, the lateral lobes of the thyroid projecting more or less under the skin. The right lobe was especially affected in about half the cases. In considering the causes of the disease, epidemic goître must be distinguished from endemic, in which these are very obscure, while in the epidemic form they can generally be made out. In the present instance forced marches in a mountainous country and an insufficient dietary seem to have been the prominent causes. The forced marching, combined with ascension, produced great congestion of the thyroid, which by frequent repetition passed into hypertrophy of the gland. Dr. Michaud does not attribute much influrnce to the local action of cold on the gland, in the way of currents of air, etc., believing that were this operating, bronchitis, laryngitis, etc., would oftener accompany the goître, as indeed has been the case in some epidemics, in which also the thyroid itself has been more acutely painful than in the present instance. The insufficient diet allowed to the men during their arduous marches has also acted as an adjuvant, although its precise mode of action is not determinable. Its reality, however, is shown by the fact that the officers and sub-officers who underwent the same fatigues as their men were able to resist their ill-effects, owing to better regimen; and by the excellent effects which a tonic treatment and a nutritious diet exerted in securing a prompt cure of the disease. The iodine treatment completely failed, and many cases which had long been subjected to it in the garrison hospital without avail, soon recovered in the Hôtel-Dieu under quinine and iron, with a substantial diet of roast meat and wine. When these means were employed in the early stages of the affection, they rapidly succeeded. The anæmic and emaciated condition of several of the patients, indeed, strongly indicated this procedure.

Defective Diet of Infants.

M. Blachez, at one of the meetings of the Paris Hospital Medical Society, brought under its notice the fact that young infants treated in the Foundling and other hospitals were insufficiently fed. The quantity of milk allowed for infants less than a month old is about a third of a litre (thirty centilitres) per diem, together with a decagramme of farina and three decagrammes of sugar. For infants from one month to one year old, half a litre is allowed, together with five decagrammes of bread, three of farina, and five of sugar. This M. Blachez considered as wholly insufficient. M. Hayem confirmed M. Blachez's views, stating that, while an interne at the Hôtel-Dieu, out of thirty infants who had died, twenty-seven had succumbed to insufficiency of diet; and that the protests which he had made against this state of things were ineffectual.

These statements were copied into the political journals, and were commented upon in the sensational manner so common on both sides of the Channel, it being stated that infants were only brought into the hospitals to die of starvation. The

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subject having been again brought before the Hospital Society, M. Moissenet, who on the former occasion declared that he had never seen infants die of hunger in the hospitals, and was only surprised that his colleagues who asserted that they had done so had so long kept silence on the subject, observed on the present occasion that he had since made ample inquiries, and could nowhere learn that the state of things so deplored really existed. The milk supplied is of excellent quality, and when the regulation quantity is believed to be insufficient there is no difficulty in getting more; while, as there are always some mothers suckling their infants in hospital, the milk which would otherwise be required for them is distributed among the others. He regrets that M. Hayem has not particularised the twenty-seven cases of death from inanition he alludes to; but when we recollect the wretched state in which infants are brought to the hospital, it is somewhat hazardous to attribute their death to administrative parsimony. He cannot himself learn that any death from inanition has taken place.

M. Blachez replied that no one could regret more than he did the use that had been made of his statements. He said his attention had been drawn to the subject on finding that some infants at the Lourcine who were convalescent from measles were insufficiently fed, although they certainly did not die of inanition. This led him to inquire more particularly as to the quantity of milk allowed, and which he certainly did not think enough; nor did he possess the power of ordering supplementary quantities, which M. Moissenet says he had at the Hôtel-Dieu. Indeed, he is of opinion that the "milk-diet" in the hospitals is not in general properly regulated. Thus, patients suffering from albuminuria, for whom it is prescribed, are deprived of their wine and other aliments. At the Lourcine there are patients the subjects of formidable syphilitic disease who are only able to bear the large doses of iodide of potassium which are necessary for them by the aid of a large quantity of milk. This quantity can only be got for them with difficulty, and that at the cost of the suppression of other aliments which are absolutely necessary for them. With regard to infants, the limits of age are ill-adjusted. The same amount of nourishment is not suitable for infants between one month and one year. A child of two months has not the appetite and needs of one of ten months; and the mere addition of other substances will not supply defect in quantity. It is only during the first weeks that any dilution is admissible; and if we are to have the infant thrive, it must afterwards take and digest pure milk.

M. Vidal observed that in 1865 the results of many autopsies convinced him that an increase of the quantity of milk was called for, and the administration promised that it should be supplied. He proposed the formation of a committee to consider the question; and this was agreed to.

The Induction of Anæsthesia during Sleep.

At a recent meeting of the Paris Société de Médecine Légale, Professor Dolbeau read a report (published in the January number of the *Annales d'Hygiène*) upon the question of the "Employment of Chloroform in relation to the Perpetration of Crime." The occasion for it arose from M. Cucuel, a corresponding member, having been called upon by one of the tribunals to answer this question—"Can the employment of narcotic substances administered in the liquid or gaseous form produce a sufficiently deep anæsthesia to allow of a rape being committed on the person to whom they have been given, without arousing her from her sleep." Instead of replying to this question in general terms, M. Cucuel confined himself to the circumstances of the case which had given rise to it. A young woman declared that she had been violated, and this was true enough; but she added that she had been asleep, and was aroused by severe pain in the genital organs, and the suspicion arose that the crime had been perpetrated while she was under the influence of chloroform. M. Cucuel came to the conclusion that there was no sign of chloroform having been administered to her in a quantity sufficient to induce profound sleep, and that it would be impossible to anæsthetise a person already asleep, by means of chloroform, without awakening her. He now submitted his opinion to the consideration of the Society, and Professor Dolbeau was appointed to report upon it.

Professor Dolbeau says that personally he was disposed to adopt M. Cucuel's opinion, but that he thought it required examination for its justification, and he set himself to investigate the question—"Can we administer chloroform to an individual who is sleeping naturally, so as to induce anæsthesia without arousing the sleeper?" On the first introduction of anæsthetics into surgical practice, great fears were entertained by the public as to the possibility of their being employed for criminal purposes; and it was one of the many useful offices performed by Dr. Snow, in having shown how exaggerated such apprehensions were—a view amply confirmed by all subsequent experience. However, this is not the point before us, as everyone admits that a person in a state of complete anæsthesia may unconsciously be submitted to violence; but the question here is, Can a person be subjected to anæsthesia while he is sleeping? For the elucidation of this, Professor Dolbeau performed several experiments, and found that sleeping animals were readily aroused by the presence of even small quantities of chloroform in their immediate vicinity. The cases of three patients are also given, who while sleeping were readily aroused by applying small quantities of chloroform at no great distance from the nostrils. In a second series of experiments made on seven patients, ten drops of chloroform were poured on a napkin folded in four, which was gradually brought to the vicinity of the air-passages, so that all air inspired had traversed it. In all these cases the patients were suddenly aroused from their sleep—some immediately, and one only after the eleventh inspiration.

A third group of cases, consisting of twenty-nine patients, was next experimented upon, furnishing different results. These are given in some detail, but it will suffice to say that it was found that in ten out of the number—that is, in more than a third—complete anæsthesia could be induced without awakening them. Dexterity in the mode of procedure seemed to have something to do with the proportion thus obtained, for this increased progressively with the number of cases experimented upon.

"New researches will still be required in order to establish the influence which may be excited on the results by the age of the subjects, their sex, their prior condition of health, personal habits, etc. The purity of the chloroform employed is also a matter of importance. While thus appealing to future researches, your reporter, making certain reserves, still feels feels that he is authorised in drawing a somewhat positive conclusion. Scientifically it is difficult, but often possible, to render persons insensible by means of chloroform who are in a state of natural sleep. Certain precautions, the employment of a very pure article, and great practice, are conditions that favour the success of the attempt. It is probable that certain subjects are absolutely refractory—that is, it is impossible to anæsthetise them in spite of every precaution that can be taken. Others, on the contrary, and especially young children, easily undergo anæsthesia without being aroused from their sleep by the irritation which the anæsthetic produces in the air-passages. Under the criminal aspect, it is certain that chloroform administered to sleeping persons may facilitate the perpetration of certain crimes. It is, however, probable that the conditions favourable for anæsthesia will be rarely combined on the occasion of criminal attempts. But before the tribunals the expert should declare that it is possible, if not easy, to render a sleeping person sufficiently insensible by chloroform to allow of his becoming the victim of a criminal attempt."

Multiple Births.

In the same number of the *Annales d'Hygiène* there is an elaborate paper by M. Puech, "On Multiple Births in France and in the Principal Countries of Europe." As regards France, the essay is well-nigh exhaustive, and the other countries are treated at as great length as the imperfection of their statistics admits of. Altogether, those interested in the subject will find it dealt with on a much broader scale than is usually the case. We have here only space for some of the concluding observations:—

"To sum up: variability in the frequency of multiple births, according to the condition of woman, the country she inhabits, the nationality to which she belongs—such is the last word of this long labour; but the developments which have been effected, as well as the pains taken to collect their various elements, will not altogether prove labour lost, since we have been enabled to arrive at the determination of a general law which presides over the production of these phenomena and their distribution. In spite of the ideas admitted to the present day, this geographical distribution is not the pure and simple effect of chance, but is subordinated to special conditions, the most capital of which is the condition of fecundity. Varying with this, and following its successive oscillations, the aptitude for multiple births is in a direct ratio to fecundity,

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and an exact idea of one of these terms gives approximatively a knowledge of the other, so close is the connexion of the two phenomena. Just as the more children a woman has at short intervals, the more apt is she for these physiological anomalies, by a necessary consequence the more rich a year is in births, and the more constant proofs a people gives of its fecundity, so much the less rare are these kinds of births, and the more does their proportional frequency augment. In other words, fecundity and aptitude for multiple births are two contingent characters, varying from individual to individual, from country to country, from people to people, and which yet present oscillations in perfect accordance with each other, being subordinate to each other. . . . In fine, the degree of fecundity among women is the law which regulates the distribution of multiple births, all other agents exerting their effects only by their mode of action on this."

REVIEWS.

Diseases of the Skin: in Twenty-four Letters on the Principles and Practice of Cutaneous Medicine. By HENRY EVANS CAUTY, Surgeon to the Liverpool Disensary for Diseases of the Skin. London: J. and A. Churchill. Liverpool: Adam Holden. 1874.

THIS book is the work of an author who rather allows his imagination to outrun his facts. His style is vigorous, and there are many evidences of sound judgment in his pages; while on the other hand he is rather over-captious, we think, about the work of others, though not in all respects immaculate himself. The whole subject of dermatology, including the acute exanthemata, is here compressed into a comparatively small compass, so that many diseases are only glanced at in the most superficial manner, and the question of diagnosis is especially slighted. The first letter treats of dermatology generally, and impresses on a beginner what he should and should not do in studying it. "It is unnecessary to know much about the anatomy of the skin, and plates are of little use (p. 2), because they fail to give the idea of *humidity*, and because they only illustrate ordinary forms of skin diseases." We fail to see the force of either of these objections. With regard to the first, how many skin diseases other than eczema are really humid? and as to the second, Mr. Hutchinson is especially editing for the Sydenham Society illustrations of their unusual forms. We also demur to the statement that "other nations have written on dermatology, but the result of all such work has been simply *nil*" (p. 6); or, again, that "in Hebra's works there is not the slightest exercise of deduction of any principle on which the treatment of skin diseases is to be conducted." The remainder of the first letter is a sort of general sneer at the classification, statistics, and the ordinary methods of treatment of diseases of the skin. In speaking of Aleppo boil and Barbadoes leg as "the light literature of dermatology" (p. 10), Mr. Cauty should remember that there are British medical men abroad who require a knowledge of foreign skin diseases, and that therefore a text-book would be incomplete which omitted to describe them.

The author's pathology is in many ways remarkable, especially where he deals with the subject of the blood, to changes in which he refers almost all the more important skin diseases. Thus he speaks of the red corpuscles (p. 13) as "red *granules*," which alcohol "causes to become agglomerated" (p. 80), while under the action of arsenic "they are increased in number, become smaller, firmer, and display unwillingness to coalesce" (p. 85); further, "when mixed up with the serum of the blood (p. 143), they give rise to the coppery tint of syphilis." In his enthusiasm for the white corpuscles, Mr. Cauty has, so to speak, out-Cohnheimed Cohnheim, though we fear his statements are scarcely as reliable. Thus we are told at page 14 that "they are *membranous*, and contain fluid, and they increase when the circulation is accelerated or retarded, while the result of their increased formation is increase of tissue, they being the vital formative germs by which structure is created and waste repaired." The white corpuscles are "enlarged by imperfect oxygenation, and, as they are then more numerous, swollen, and flaccid, they impede the blood-current." Other statements of a similar nature are scattered through the book, but we have not space to reproduce them.

In Letter IX. there is a long discussion on disease germs, which is more founded on theory than on fact, unless Mr. Cauty has sources of information which are not generally accessible to support his views. It is a pity that he quotes no authority for what he advances. Thus he states (p. 190) that "the chill of an eruptive fever is an attempt of the disease germs to arrest the circulation previous to decomposition, and this attempt may be more or less successful, the result being seen in—imperfect eruptions." Again, "in small-pox (p. 202) the disease germs make a great effort to decompose the blood"; while it is cheering to know that (p. 151) "the syphilitic germ is very slightly irritant, very persisting, and tolerably putrefactive"; and "its exact action (p. 135) is to retard the circulation." The following statement requires a clear head to comprehend it:—"The quantity (p. 133) of germs absorbed is an important item, for, though no amount of quantity will equal in virulence a different quality, yet a certain quantity is necessary to cause such alterations as permit of germ growth."

Eczema and pemphigus Mr. Cauty considers to be more often due to derangement of the *liver*—that bugbear of antiquity—than any other cause, though many of the symptoms that he mentions as hepatic are certainly due to disordered stomach, and he himself admits the difficulty of determining small variations in the size of the liver. However, he accounts for the bullæ of pemphigus by "the watery parts of the blood being effused over a considerable patch of skin, owing to obstruction of the liver" (p. 49), and states that "in many persons (p. 65) the hepatic venous circulation appears just on the balance, and a glass of ale or a bottle of wine (*sic*) is sufficient to produce scales on the palmar surfaces of the hands, or a papular rash on the wrist." Eczema of the palms or soles is, also, explained thus:—"The whole body (p. 46) being sodden with fluid, which will neither make its exit internally or externally, the palmar surfaces in such cases cannot resist the continued fluid pressure, but they do so under protest."

We question the accuracy of Mr. Cauty's statement (p. 61) that the great mortality from convulsions in children is due to their gums not being lanced"; or that (p. 67) "congestion of the lungs in children cures itself."

Mr. Cauty has some very judicious and useful remarks on the treatment of eczema mammæ and sore nipples, but he seems to think infantile eczema more easy to cure than most people do.

He objects very much to "stimulants" in the treatment of disease, and considers "Gladstone" claret is "only water *spoiled*." He argues strongly in favour of habitual exercise, and we agree with him that medical men should insist more on this point; but we doubt whether he does not ride his hobby too hard when (p. 82) he takes the case of a woman "with eczema, enlarged liver, irregular menstruation, varicose veins, and weak heart's action, with her feet swelling at night," and says "the only cure for her is starvation and exercise"!

Mr. Cauty considers that the eruptions called baker's or grocer's itch (p. 27) are generally *constitutional;* but he surely would admit that they require a local irritation as their *exciting* cause. On the other hand, though he does not admit a necessarily constitutional origin of ecthyma (p. 104), he would probably not deny that any irritation—*e.g.*, scabies—would be more likely to produce it if the patient were in a bad state of health.

The parts of the work which deal with treatment are in many respects the best, especially those on syphilis, the parasitic affections, and on general remedies. Mr. Cauty is rather unnecessarily severe upon several British and foreign dermatologists, and though he does not attack them by name, it is easy to see to whom he alludes. We do not see why he should (p. 325) stigmatise the (in our experience) excellent ointment which Dr. Tilbury Fox has recommended instead of the sulphur ointment of the old Pharmacopœia as "in every way anomalous and inferior." His remarks on vaccination are sensible, but we question whether his dictum, that (p. 225) "the proper treatment of mild hereditary syphilis is vaccination," will be generally approved of.

Mr. Cauty is somewhat of a humorist, as when (p. 220) he tells us that "to nurse a sister's child with scarlet fever, and to return to her master's house reeking with infection is the occupation natural to the domestic mind on a Sunday out"; or (p. 297) that "the human body is liable to injuries or attacks from various animals—vertebrate, molluscous, articulate, or radiate"! We hope none of our readers will so far have forgotten his zoology as to imagine a radiate animal means a flea.

We might give several examples where the author contradicts himself; but the following extract must suffice. He

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says at page 280—"You cannot destroy ringworm (of the scalp) of any kind by local measures when once it is established"; but at page 284, "on the perfection of the epilatory process depends the successful treatment of many cases in which the constitution does not respond to internal and hygienic measures."

Mr. Cauty sneers rather violently at the microscope in the diagnosis of skin diseases (pp. 268, 269); but when at page 242, speaking of sebaceous tumours, he says "as the retained secretion augments, the *convolutions* of the gland become gradually unwound," we are induced to doubt his right to speak with authority on the subject, and to imagine that he has all his life been mistaking a sweat-gland for a sebaceous gland.

We have not space to discuss the question whether "onychia is always syphilitic" (p. 295), or "the bites of lice purely imaginary" (p. 310), or whether "herpes is a neurotic disease (p. 108) or not," though Mr. Cauty seems to think the latter.

The writer is scarcely logical when, at page 144, he says that "the general characteristics of syphilitic eruptions are—the clear definite figure or outline of the eruptions, or else the total absence of definition and presence of a variety of forms." Do not the two sentences annul each other's force?

The comparison of the blebs of pemphigus (p. 50) to "walnuts of glass" is good, as also of the vessels on the nose in acne rosacea (p. 260) to "the rivers in maps of unexplored regions, arising indefinitely and running nowhere."

There are very few typographical errors in the book, which is also well printed; but surely "puncte" (pp. 41-43) for puncta, four times repeated, is more than a printer's mistake, and the beginner might perhaps be puzzled on seeing tinea spelt also "tenia" (p. 42) and "tinia" (p. 114) to know which is the right way to spell it.

In conclusion, though we have been obliged to criticise this work rather severely—but we hope not unjustly,—and though we cannot conscientiously recommend it as a text-book for a commencing student of dermatology, on account of the numerous pitfalls which would delay his progress, yet there is much that is sound and common-sense in its pages. If Mr. Cauty could extricate himself from the mazes in which his imagination has entangled him, and would take warning from his own precept (p. 8), that "where the base is ignorance the superstructure cannot be perfect," he would do better another time. His work is the work of a man of active mind, yet too apt to be led by fancy rather than fact; but those who, like ourselves, will carefully read what he has written, will obtain not only much innocent amusement, but also some solid instruction.

GENERAL CORRESPONDENCE.

THE DICROTISM OF THE PULSE.

LETTER FROM DR. A. L. GALABIN.

[To the Editor of the Medical Times and Gazette.]

SIR,—Mr. Mahomed has addressed two letters to the *Medical Times and Gazette*, criticising the views which I had stated as to the causation of the dicrotism of the pulse. Side by side with the first of these, published on January 3, appeared also a letter of my own, which will serve, in great measure, as an answer to that of Mr. Mahomed. I think it will appear from that letter that in estimating the effect of inertia upon dicrotism I did not, as supposed by him, at all leave out of account the inertia of the fluid. On the contrary, out of the three causes which I suppose to contribute to dicrotism, two involve the inertia of the fluid only, and the third, while depending on the inertia of the arterial wall primarily, owes its importance to the fact that the inertia of the blood comes likewise into play. There is only one sentence in this first letter which appears to require special notice, and that is one in which Mr. Mahomed says that my hypothesis of a want of equilibrium between the tension of the tube and the pressure within appears to him unlikely, if not impossible. In the statement which is thus criticised I was not propounding any hypothesis of my own, but only referring to a well-known principle of dynamics. If an elastic tube be at rest, the tension of its wall is in equilibrium with the pressure within, but if it be expanding or contracting, this is no longer the case, but the equation connecting the two quantities involves then a third term, which is proportional to the product of the weight of the tube-wall and its lateral acceleration at the moment in question. Therefore the weight of the tube must affect the transmission of the first wave and also the subsequent motion.

In his second letter, Mr. Mahomed proceeds to point out several errors of mine. The first is, that I used terms incorrectly, because I said that distensibility came into play in the causation of dicrotism. But Mr. Mahomed himself agrees that distensibility is necessary, and, since all the necessary conditions of an event are causes of that event, it was quite correct to call distensibility a cause of dicrotism. Moreover, in the sentence quoted it was of distensibility I was speaking, and not of elasticity in the strict sense. There is, indeed, no harm in using the word "elastic" in its commoner and less exact sense, as it is used by Mr. Mahomed throughout his letter, provided only there be not founded on such use a supposed analogy with the behaviour of elastic balls, which is altogether fallacious.

Mr. Mahomed next denies my "extraordinary assertion" that, if the arteries were not distensible, the great expansive wave itself could not occur. Notwithstanding the enlightenment which I have since received from his letter, it still appears to me self-evident that if a tube be not distensible it cannot expand, and that therefore no wave of *expansion* can possibly occur in it. This is in no way inconsistent with the fact, correctly described by Mr. Mahomed, that the fluid would then be transmitted in a series of discontinuous jets.

Mr. Mahomed finally argues that I have changed my opinion, because I said of one of the causes of dicrotism that the importance of its effect was "fairly open to question." I have not in any way changed my opinion, but I meant only that, while the existence of such a cause is a matter of demonstration, intelligible to those acquainted with mechanics, the magnitude of its result must be judged of rather by observation and experiment, and I do not therefore expect my view to be accepted by all without question.

I have in my turn to confess that I do not fully understand what Mr. Mahomed himself now maintains to be the cause of dicrotism, except that he has considerably modified his first theory, in which he attributed it to the elastic contraction of the aorta, and made no allusion to the effect of inertia. But I rather suppose that he still holds, as he did formerly, that what corresponds to the dicrotic wave in the aorta is contraction; that in the peripheral arteries it is expansion; and that through some intermediate space there is something transmitted which is neither contraction nor expansion. This view appears to me contrary not only to reason, but to experiment; for in the tracings obtained by M. Marey from the aorta there is an elevation which appears to correspond to the dicrotic wave, and which is attributed by him to the recoil from the aortic valves, although the dicrotic wave in the radial pulse he believes to have a different cause. The diagram in question is to be found in the "Physiologie Médicale de la Circulation du Sang," p. 189.

Since Mr. Mahomed reserves his full answer until he shall have had the opportunity of carrying out further experimental observations with a view to a more complete settlement of the question, I would infer that his final theory has yet to be formed, and I shall await with anxiety the new light which will be thrown upon the subject by so distinguished an experimenter. I am, &c., A. L. GALABIN.

[Here this controversy must in the meantime end.—ED. *Med. Times and Gaz.*]

THE PARIS ASSISTANCE PUBLIQUE.—According to the *France Médicale*, M. Blondel has just been put on the retired list, his successor being M. de Nerveaux, the Director of the *Surété Générale* of the Minister of the Interior, a post now suppressed. It is difficult to conceive (says that journal) how so complicated an administration as that of the Assistance Publique and the hospitals comes to be placed under a chief who is perfectly ignorant of all that concerns them. The two late directors, MM. Husson and Blondel, had been long attached to these establishments before being entrusted with their administration; and it is difficult to imagine what relation can exist between the Director of the *Surété Générale*—an officer of police whose functions are entirely political—and hospital administration. A place had to be found for a displaced administrator, and that is the whole secret of M. de Nerveaux's appointment.

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REPORTS OF SOCIETIES.

OBSTETRICAL SOCIETY OF LONDON.

WEDNESDAY, FEBRUARY 4.

E. J. TILT, M.D., President, in the Chair.

THE following gentlemen were elected Fellows of the Society:—James Charlesworth, M.R.C.S. (Hanley), William Henry Kempster, L.R.C.P. Edin. (Battersea), William Borwick Robertson, M.D. (West Dulwich), and Arthur Roper, M.R.C.S. (Blackheath).

The PRESIDENT, before proceeding with the business of the evening, alluded feelingly to the loss the Society had sustained by the death of its late secretary, Dr. J. J. Phillips. Dr. Edis had been appointed by the Council to the vacancy thus caused.

Dr. J. C. HAYES exhibited a distorted Hodge's Pessary that had been worn continuously by a patient for five years without being removed. During the last three months it had caused discomfort. On examination, the anterior extremity was found to have ulcerated into the vagina, and was encircled by a firm transverse band which had to be divided by the bistoury before the Hodge could be removed. He thought that all patients wearing pessaries should submit themselves for examination from time to time.

Dr. EDIS mentioned a case that occurred to him, where one end of a Hodge had completely buried itself in the posterior wall of the vagina. Instead, however, of cutting the band, he divided the Hodge, and thus extracted it—a safer plan, he thought, than dividing the band when this was broad or thick.

Dr. BARNES referred to similar cases recorded in his book, and quite agreed in the necessity of examining all patients wearing pessaries at least once every three months.

Dr. PLAYFAIR, Dr. ROUTH, and Dr. WYNN WILLIAMS also spoke of the advisability of watching patients whilst wearing pessaries.

Mr. SIDNEY TURNER showed a specimen of Tubal Pregnancy occurring in a woman aged 35. She had miscarried once previously at the third month, and had advanced about two months in pregnancy, when, whilst out walking, she was suddenly seized with pain in the hypogastrium, and was conveyed home in a cab, where shortly afterwards he saw her. She was then in a state of collapse, very blanched, cold and pulseless, but perfectly sensible. He made a vaginal examination, but found nothing beyond a uterus slightly increased in size. There was no hæmorrhage per vaginam, nor any bulging in Douglas's pouch. From the suddenness of the attack and the very anæmic appearance of the patient, he thought there was a rupture of an extra-uterine fœtation. Perfect rest was enjoined, but fifteen hours after the onset she suddenly jumped out of bed, and immediate fatal syncope was the result. At the autopsy, thirty-six hours after death, the peritoneum was found to be filled with about three quarts of blood in a semi-coagulated state. The uterus was slightly enlarged, but contained no blood, although the Fallopian tube was pervious along its entire length. The right Fallopian tube was distended in its middle part to the size of a small egg; and here rupture had occurred. There was a well-marked Graafian vesicle in the right ovary, and adhesion between the ovary and uterus had taken place, showing previous inflammatory mischief. The uterine cavity was filled by the deciduous membrane, which was not separated, but could easily be detached.

Dr. ROUTH asked whether the idea of an exploratory incision had been at all entertained. The sickness and arrest of menstruation had led early to a suspicion of pregnancy. He would like to know whether full examination had been made to test this by rectal, vaginal, and stethoscopic investigation, besides the other signs of gestation. The question of perforation of the stomach or intestines (typhoid) had been raised, but neither appeared to have been seriously considered as present.

Dr. SAVAGE inquired what circumstances led to the idea that it was not an instance of tubal pregnancy. In regard to Dr. Routh's suggestion as to the advisability of an exploratory incision, even when the patient was *in articulo*, Dr. Savage hoped no one would be induced to hazard one under such circumstances, since the discredit of killing the patient would fall (and rightly too) on the practitioner. He wished also to call attention to the loose attachment of the remarkably well developed decidua. It could be easily detached, leaving to all appearance unchanged the internal surface of the uterus.

Dr. Hayes, Dr. Heywood Smith, Dr. Barnes, Dr. Wynn Williams, and Dr. Madge also took part in the discussion.

Mr. A. B. STEELE (of Liverpool) read a paper on "Two Cases of Dystochia from Contracted Pelvis." In the first case forceps and version had been resorted to six times in six separate labours, with a fatal result to the child in each instance. In the seventh labour, Siebold's forceps were tried, but failed to deliver the head. Version was performed, and a living child extracted. In both instances the induction of premature labour had been suggested, but was not permitted.

Dr. BRAXTON HICKS remarked upon the advantage of resorting to version in place of employing the forceps.

Dr. PLAYFAIR read a paper "On Puerperal Thrombosis." He pointed out that, on account of its tangible symptoms, the attention of the profession had been chiefly limited to one only of the manifestations of this disease—phlegmasia dolens. He discussed at considerable length the analogies between this and thrombotic affections in other parts of the body, especially in the heart and pulmonary arteries, and brought forward many arguments to prove their essential identity. He also considered the question of spontaneous thrombosis and embolism in the pulmonary arteries, arguing, in opposition to the views of Virchow and other writers, that the former was a possible, though rare affection. The anatomical conditions accompanying peripheral thrombosis and central thrombosis and embolism were also discussed. The author then proceeded to consider the possibility of eventual recovery after pulmonary obstruction, bringing forward several illustrative cases, and concluded by discussing the treatment.

Dr. BARNES inquired whether the clot had been noticed to be present on the same side to which the placenta was attached. He related a case in which the application of six leeches to the cardiac region had produced marked relief, the patient ultimately recovering.

Dr. FRANCIS TAYLER thought there were three points worthy of notice—Firstly, it appeared that the patients were suddenly found to be at the point of death before any danger had been apprehended; secondly, in those cases which were examined after death a firm laminated clot was discovered, evidently not of very recent formation; and thirdly, in those cases in which a stethoscopic examination was able to be made, some abnormal sound was discovered at the base of the heart. He would suggest, therefore, that if the heart-sounds were subjected to examination during the puerperal period, either as a matter of routine, or at any rate more generally than they usually are, in all cases—or at least in those in which thrombosis is prone to occur, as after hæmorrhage—the danger might in some cases be foreseen, and, by suitable treatment, be lessened or averted. He related a case where fatal embolism occurred on the eighth day, no suspicion of the danger having presented itself, although a firm laminated clot was found after death in the pulmonary artery.

Dr. J. C. HAYES agreed with Dr. Barnes that it was impossible to do justice to such a valuable paper in a hurried discussion. He was quite at one with Dr. Playfair that thrombosis had a wider application than was commonly given to it as a cause of disease and of sudden death in puerperal women. He looked upon phlegmasia dolens and ante-mortem plugging of the pulmonary artery as dependent upon the same conditions, the clots being produced by the changes wrought in the blood by the pregnant state, or its accidents, such as flooding, septicæmia, etc. Inflammatory or other changes in the coats of the veins were not necessary to induce clotting. Indeed, in most, if not in all cases, he believed such changes were caused secondarily. Dr. Playfair had not mentioned the sudden paralysis with or without loss of consciousness occurring so frequently during or immediately after parturition. Were they not produced in most instances by thrombosis of the cerebral arteries? It was incorrect to suppose that plugging the pulmonary artery was always brought about by a septic state of the blood. He narrated an instance of a young lady in excellent health who died from embolism shortly after she had heartily enjoyed herself at a large dance. The case was seen and diagnosed by Dr. George Johnson during life.

Dr. ROUTH referred to Dr. B. W. Richardson's researches on this subject, which had not been alluded to by Dr. Playfair. The blood to circulate must be alkaline, but it was possible that, in many of these diseases accompanied by blood poisoning, the blood, without being exactly acid, might be less alkaline

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than normal, or the very increased temperature usually observed in the early period of these cases might in a measure expel the free ammonia in the blood, and so facilitate the deposition of fibrine. Whilst it was clear that the ammonia was not the sole cause of the solution of the blood, it was a powerful contributing agent to this end. Dr. Richardson had shown that the exhibition of ammonia, in doses varying from ten to twenty drops of the liquor in sweetened milk every hour or every half-hour, had a powerful effect in preventing the formation of clot, and in some cases in dissolving it when formed. The liquor ammoniæ had a great advantage over the carbonate or alkalies generally. These weakened greatly the already exhausted patient, and their elimination was not so rapid. The administration of the liquor might be pushed almost to complete disintegration of the blood globules, and yet the suspension of the remedy was almost immediately followed by their reproduction, so that no permanent harm was done. Doubtless its volatility contributed in some measure to its rapid elimination. The usefulness of this remedy in phlegmasia dolens, however, as well as in the more serious cases of clot in the heart, was at once obvious from the results obtained. Dr. Routh mentioned three cases, in which, from the symptoms, no doubt existed as to the presence of clot in the heart, benefited by the exhibition of ammonia.

Dr. Savage thought it was impossible to discuss fairly a paper of such length in the short time now at disposal. However excellent such long papers might be, they had the disadvantage of taxing the attention—so much so, that the train of reasoning connecting the beginning with the end was lost sight of. Thrombosis and embolism, he imagined, had long ago been completely worked out. Would it be too much to expect that Dr. Playfair would as a favour point out wherein he considered his views novel or peculiar, thereby saving much waste of time in going over old ground? He proposed that the discussion be adjourned till the next meeting.

Dr. Chambers having seconded this, it was resolved by the Society to adjourn, as proposed.

Dr. Playfair, in reply to Dr. Routh, stated that Dr. Richardson himself, as well as everyone else, had long given up the theory of coagulation of the blood depending on want of alkalinity. Ammonia might be useful as a diffusible stimulant, but in no other way.

ROYAL MEDICAL AND CHIRURGICAL SOCIETY.

Tuesday, February 10.

Dr. A. Whyte Barclay, Vice-President, in the Chair.

A communication by Drs. Hennessey and Maclaren, "On Cholera in the North-West Provinces of India," was read. The authors of the paper first described the geographical position of the town of Dehra between the Sivalik and Himalaya Mountains, the parts of it occupied by the native population (who are under the medical care of Dr. Maclaren), and the civil station where the Europeans reside. The meteorological observatory of Mr. Hennessey lies midway in the district along which the main road from the low country passes to the sanatorium of Mussoorie. The first case of cholera that occurred in the summer of 1872 was that of a student passing through Dehra on his way to Mussoorie, where he died on July 8. The first case in a resident of Dehra, who had not been in the way of infection except as residing near the main road along which the student passed, occurred on the 12th of the same month. Three days later other patients presented themselves for treatment, and the disease progressed till September. Its course was indicated in a table of curves, which was shown at the meeting. One special case was related of a poor Eurasian family living near the main road, most of whom died from their obstinacy in returning to the infected house after removal. Though so near to Dehra, and in uninterrupted communication with it, Mussoorie and Landour on the ridge of the hills enjoyed almost complete immunity from the attack. The diagram referred to above consisted of curves showing the number of attacks each day, the daily deaths and recoveries, and the ultimate number of deaths and recoveries among each day's admissions. On comparing these curves with the meteorological register of the observatory, no corresponding fluctuations were discovered (a complete calm having prevailed), except in the "elastic force of vapour," the curve of which had a singular coincidence with the sudden rises and falls of the other curves, rising with the recoveries as marked in them. The authors referred to their diagram as indicating that the curve of cholera-attacks rapidly rises to a maximum, and then falls as rapidly or descends gradually to zero; and also as accounting for the fact that any so-called specific discovered when the tide is ebbing may prove useless when applied while the curve is rising in a succeeding epidemic. After alluding to some spectroscopic experiments on cholera evacuations, the authors summarised a few facts connected with the question of infection in favour of the choleraic poison having no vitality, and of an imported cholera patient having no power to infect others except in the presence of the required atmospheric conditions.

Dr. Drysdale asked for further information on the subject of the elastic force of vapour referred to in the paper.

Dr. Symes Thompson replied that the author seemed uncertain whether the variation of the vapour-tension with the spread of the disease was a mere coincidence or was really significant. This variation was certainly the most remarkable fact recorded in the paper.

Mr. Howard Marsh read a paper "On the Treatment of Rickety Deformities of the Legs by Operation." The author gave an account of four cases of rickety deformity of the legs which he had treated by operation. In two of them the curvature was outwards, in one outwards and forwards, and in one almost directly forwards. In the first three cases a tendon knife was passed down to the tibia, where the concavity of the curve was greatest, and the periosteum was divided transversely. A fine saw was next introduced, and the bone partially divided, and then, by a somewhat suddenly applied force, snapped across; the fibula was either bent or broken, and in one of the operations the tendo Achillis was cut. In the two cases in which the curvature was outwards the legs are now straight; in the boy whose curvature was outwards and forwards, and in whom the treatment was interrupted by an attack of scarlet fever, the deformity, although much diminished, is not wholly removed. In none of the patients was the operation followed by any serious symptom, and, except in the boy who had scarlet fever, convalescence was complete in about a month; in him it was complete in about six weeks. In the fourth case, in which the bones of the legs were curved almost directly forwards, and in which the deformity was so extreme that the boy could only walk a few steps at a time, a wedge of bone was taken out of the tibia with a chain-saw, the tendo Achillis was cut, and the fibula broken in one leg and cut with bone-forceps in the other. These operations, which were performed, the one on April 8, the other on October 4, 1871, were not followed by any dangerous symptoms, but small discs of bone became necrosed and were slowly separated from the cut ends of the tibia. Union was firm in one leg in three months; in the other, in which it was much delayed by the tedious separation of the necrosed portions of bone, in six months. The legs are now straight, and the boy walks without impediment. The paper was illustrated by photographs and casts of the limbs before operation, and the cases were shown.

Mr. William Adams said that the first three cases—those of subcutaneous division of the bones—were especially interesting, the operation was so easy and innocent, and followed only by good results. He believed this operation would come into more general use in suitable cases. In regard to the fourth case, it is seldom that this operation would be applicable—removing a large wedge of the tibia and cutting the fibula. Mr. Adams had seen this operation performed by Mr. Little in the National Orthopædic Hospital six years ago, in a woman; the proceeding was a severe one; the future history was tedious, but the ultimate result very satisfactory. Probably Mr. Little introduced the operation into England. In all Mr. Marsh's cases there was the peculiar feature that the disease was nearly limited to the bones of the legs proper; and where the thigh-bones were bent, they had improved by the rest after operation. He believed himself in the spontaneous straightening of rickety bones. Yet in deformities of the thigh-bones in girls he insists upon recumbency for one or two years, on account of the effect upon the pelvis.

Dr. Hare inquired whether these cases might not have recovered without operation. He had seen extremely bad cases recover by recumbency, etc. In the cases under discussion he could conceive some relation existing between the condition of the tibiæ and femora, and the fact was that the latter which were not operated on had recovered. Might not long-continued recumbency have produced the same change?

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Dr. Drysdale asked the earliest age at which Mr. Marsh would operate in such cases. He believed that before the age of four or five years, recumbency, splints, and general treatment would be of great value.

Mr. Mac Cormac asked what is the best age for operation, and what the other indications are. He considered the operation a very useful one. He believed Mr. Marsh would find the chisel easily used, as foreign surgeons have done. The chain-saw is the very reverse.

Mr. Thomas Smith bore testimony to the simple and safe method of operating, and the little subsequent suffering. Experience was wanting in regard to the preferable age and method. Might not the first method be adopted even in bad cases? The second allows of immediate restoration of the limb to its natural shape, but may be followed, apparently, by necrosis of the ends of the bones.

Mr. Gay asked whether the old-fashioned method had first been tried in these cases—such as splints, cod-liver oil, etc. What were the features pointing to their incurability? It would be dangerous to encourage a promiscuous resort to such operations. How could cutting a curved bone across make a straight one of it? It was evident that the subsequent treatment was important. Yet in extreme cases the operation might be resorted to. There were also great anatomical dangers in the operation.

Mr. Warrington Haward said that the operation was performed not for the cure of rickets, but of rickety deformity. He would take as an indication for or against the operation the condition of the bone itself. If it was flexible, he would use other means; but if it was hardened so as to be inflexible, operation might be justifiable. Both the operations were in nature compound fractures, and they must run the course of such. He would use Lister's method. The condition of the patients before and after the operation should be compared. These patients not only had an ungainly appearance, but were lame, and in constant danger of falling, while the bending of the tibiæ favoured further bodily deformity.

Mr. Alfred Willett understood that the operation was performed after the acute stage, and when the deformity had become permanent. In such cases, medicine, splints, etc., can be of no use. It is generally at one point in the limb that marked curving takes place, and it is there that one might operate.

Mr. Marsh replied that the subcutaneous operation is certainly the better of the two: his cases showed this. In regard to spontaneous straightening of rickety bones by age, the greater number of deformities might disappear by general treatment; but it is very difficult, or even impossible, to enforce recumbency. A parallel operation is excision of the knee for chronic disease of the joint. He fully believed that spontaneous improvement will take place in many cases if waited for. His most serious operation, he repeated, was performed on a boy of seven, whose legs had been deformed for two or three years. He would adopt Mr. Mac Cormac's suggestion, and try the chisel in his next case. The necrosis that occurred may possibly have been connected with the hæmorrhage which took place, and with the application of perchloride of iron as a styptic. In these cases of deformity of the limb he believed that it would not be spontaneously removed by time, but rather the reverse.

MEDICAL NEWS.

University of Dublin: School of Physic.—Hilary Term, 1874.—At the examination for the degree of Bachelor of Medicine, held on Tuesday and Wednesday, February 10 and 11, the following candidates were successful:—

Allingham, Edward.	Lewis, George Alfred.
Booth, Thomas.	McDonnell, Hercules.
Dudley, John.	Murray, Charles F.
Griffith, Robert.	Ruttle, Robert.
Hamerton, Morgan F.	Welch, William J. J., M.A. Cantab.
Lawder, Edward J.	

At the Examination for the Degree of Master in Surgery, held on Friday and Saturday, February 13 and 14, the following passed:—

Bredon, Alexander M.	Pearce, George A. C.
McDonnell, Hercules.	Ruttle, Robert.

King and Queen's College of Physicians in Ireland.—At the usual monthly examination meeting of the College, held on February 10, 11, and 12, the following candidates obtained the licence to practise Medicine:—

Baldwin, John Power.	Lucey, Samuel Francis.
Hughes, William.	Scott, Edward Irwin.
Johnson, Henry Sandford.	Taylor, George Grayson Stopford.
Jones, Thomas Reginald.	

The licence to practise Midwifery was granted to—

Baldwin, John Power.	Powell, Caleb K.
Johnson, Henry Sandford.	Scott, Edward Irwin.
Jones, Thomas Reginald.	Taylor, George Grayson Stopford.
Lucey, Samuel Francis.	

Apothecaries' Hall.—The following gentlemen passed their examination in the Science and Practice of Medicine, and received Certificates to practise, on Thursday, February 12:—

Hughes, Thomas Jones, East India Dock-road, Poplar.
Power, George Edward, Ladywell, Lewisham, S.E.
Smith, Herbert Neale, Richmond Villa, Brighton.
Symonds, Horatio Percy, Beaumont-street, Oxford.

On Thursday, the 5th:—

Lucas, Henry Owen, Highgate.

The following gentleman also on the 12th passed his primary professional examination:—

Hawkins, William, St. Thomas's Hospital.

APPOINTMENTS.

*** The Editor will thank gentlemen to forward to the Publishing-office, as early as possible, information as to any new Appointments that take place.

Elliot, Norman B., L.R.C.P. Lond., M.R.C.S. Eng., L.S.A.—Medical Officer to the Camberwell Provident Dispensary.

Harrison, Reginald, F.R.C.S. Eng., L.S.A.—Surgeon to the Liverpool Royal Infirmary.

Galabin, A. L., M.D. Cantab., M.R.C.P. Lond.—Assistant Obstetric Physician to Guy's Hospital, *vice* Dr. J. J. Phillips, deceased; also Assistant-Physician to the Hospital for Sick Children, Great Ormond-street.

Gibbings, Ashley, M.R.C.S. Eng., L.D.S.—House-Surgeon to the Dental Hospital, 32, Soho-square.

Harrison, Reginald, F.R.C.S.—Surgeon to the Liverpool Royal Infirmary.

Neal, James, M.D., M.R.C.S., L.S.A.—Medical Officer of Health for Sandoun Urban Sanitary District.

BIRTHS.

Bailey.—On February 15, at Godstone, Surrey, the wife of Thomas Bailey, M.R.C.S.E., of a son.

Giles.—On February 10, at Caxton, Royston, the wife of John Giles, L.R.C.P., M.R.C.S. Eng., L.S.A., of a son.

Richardson.—On February 9, at Long Melford, Suffolk, the wife of John Richardson, M.D., of a daughter.

MARRIAGES.

Cullen—Hoppe.—On February 14, at the parish church, Hackney, W. Fleming Cullen, Surgeon-Major 31st Brigade Depôt, Great Yarmouth, to Annie Hoppe, widow of John Hoppe, jun., Esq., of Branthwaite House, Downs-road, Clapton, and youngest daughter of the late John Ray, Esq., Scenery-hill, Cockermouth.

Palm—Anderson.—On February 12, at 7, Warriston-crescent, Edinburgh, Theobald A. Palm, M.A., M.B., to Mary, only daughter of the Rev. Hugh Anderson.

Russell—Bell.—On February 10, at St. Stephen's Church, Dublin, Christopher, eldest son of the late Christopher Russell, M.D., of Enniskerry, co. Wicklow, to Sarah Catherine, eldest daughter of the late James Bell, Esq., J.P., Captain 64th Regiment, of Ardcorne, Ballinasloe, co. Galway.

Stevens—Cowdell.—On February 17, at Marylebone Church, George Stevens, F.F.P.S. Glasg., L.M., L.S.A., of Norton, Bury St. Edmunds, to Harriett Earl, daughter of William Cowdell, jun., Esq., of Hinckley, Leicestershire.

Wright—Sharpe.—On February 17, at Christ Church, St. Pancras, T. P. Wright, M.R.C.S., to Georgiana M. Sharpe, only surviving daughter of the Rev. R. M. Sharpe, late Curate of Barthomley, Cheshire.

DEATHS.

Armstrong, Elizabeth, daughter of Surgeon-Major Armstrong, 6th Inniskilling Dragoons, at Newbridge, of typhoid fever, on February 15, aged 13.

Beatty, John Calcott, late Captain Leitrim Rifles, only son of the late T. E. Beatty, M.D. Dublin, at 6, Laila-terrace, Plymouth, on February 6, aged 44.

Caskie, Marshall, son of James Caskie, L.F.P.S., Largs, Ayrshire, at 2, Kelburn-terrace, Crosshill, Glasgow, on February 12.

Dela Motte, Henry Digby Cotes, Surgeon, of Swanage, Dorset, suddenly, while visiting a patient, on February 13, aged 77.

Galton, Frances Ann Violetta, widow of Samuel T. Galton, Esq., and daughter of the late Erasmus Darwin, M.D., F.R.S., at Leamington, on February 12, in her 91st year.

Pettigrew, William Vesalius, M.D., F.R.C.S. Eng., late Lecturer on Anatomy and Physiology, Grosvenor-place School of Medicine, at his residence, Colebrooke Lodge, Upper Norwood, on February 18, of bronchitis, aged 58.

Shillito, Eliza, wife of Charles Shillito, M.R.C.S., at 11, Terrace, Putney, on February 11, aged 67.

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VACANCIES.

In the following list the nature of the office vacant, the qualifications required in the Candidate, the person to whom application should be made, and the day of election (as far as known) are stated in succession.

ALNWICK INFIRMARY.—House-Surgeon. Candidates must be duly qualified. Applications, with testimonials, to W. T. Hindmarsh, Esq., Honorary Secretary, on or before March 1.

AXMINSTER UNION.—Medical Officer and Public Vaccinator for the Lyme Regis District. Candidates must be duly qualified. Applications, with testimonials, to Mr. W. Forward, Union Office, Axminster, on or before March 4.

BATH EASTERN DISPENSARY.—Two Honorary Medical Officers. Testimonials to Francis Savage, Esq., Honorary Secretary, on or before March 2.

BERKS COUNTY ASYLUM, MOULSFORD, WALLINGFORD.—Assistant Medical Officer. Candidates must be duly qualified. Applications, with testimonials, to Dr. R. B. Gilland, Medical Superintendent.

BIGGLESWADE UNION.—Medical Officer of Health. Candidates must be legally qualified medical practitioners, and registered under the Medical Act of 1858. Applications, with testimonials, to Mr. T. S. Hooper, Clerk, on or before March 3.

BOLTON INFIRMARY AND DISPENSARY.—House-Surgeon. Candidates must be duly qualified. Applications, with testimonials, to the Secretary, on or before February 26.

BRISTOL GENERAL HOSPITAL.—Assistant House-Surgeon. Candidates must be duly qualified. Applications, with testimonials, to the Secretary, on or before March 20.

CITY OF LONDON UNION.—District Medical Officer. Candidates must be duly qualified. Applications, with testimonials, to Mr. F. W. Crane, Clerk, 61, Bartholomew-close, on or before March 2.

DEVON COUNTY ASYLUM.—Assistant Medical Officer. Applications, with testimonials, to T. E. Drake, Esq., Solicitor, Exeter, on or before February 25.

DURSLEY UNION.—Medical Officer for District No. 3. Applications, with testimonials, to Mr. G. Wenden, Clerk to the Guardians, Dursley, on or before February 25.

EVELINA HOSPITAL FOR SICK CHILDREN, SOUTHWARK-BRIDGE-ROAD, S.E. Physician. Candidates must be F. or M.R.C.P. Applications, with testimonials, to the Committee of Management, on or before February 28. Also vacancy for Surgeon for Out-Patients. Candidates must be F. or M.R.C.S. Applications, with testimonials, as above.

GENERAL HOSPITAL, NOTTINGHAM.—Physician. Candidates must be duly qualified. Applications, with testimonials, to the Chairman of the Qualification Committee, on or before March 10.

HOLBEACH UNION.—Medical Officer for the Sutton Bridge District. Applications, with testimonials, to the Clerk of the Union, on or before March 15.

HUDDERSFIELD INFIRMARY.—Physician. Particulars from the Honorary Secretary or House-Surgeon.

INVERKIP (DISTRICT OF).—Resident Medical Practitioner. Applications, with testimonials, to H. R. B. Peile, Esq., Mansion-house, Greenock, on or before February 21.

INVERNESS DISTRICT ASYLUM.—Assistant Medical Officer. Applications, with testimonials, to Dr. Aitken, Medical Superintendent, on or before March 2.

LEITH HOSPITAL.—Assistant-Surgeon. Applications, with testimonials, to Mr. Mann, 42, Bernard-street, Leith.

LITTLEMORE PAUPER LUNATIC ASYLUM, NEAR OXFORD.—Resident Assistant Medical Officer. Candidates must be duly qualified. Applications, with testimonials, to the Superintendent, on or before February 28.

NARBERTH UNION.—Medical Officer. Candidates must be duly qualified. Applications, with testimonials, to Mr. John Thomas, Clerk, on or before March 21.

PRESTON AND COUNTY OF LANCASTER ROYAL INFIRMARY, PRESTON.—Junior House-Surgeon. Candidates must be duly qualified. Applications, with testimonials, to R. Blair, Esq., M.B., at the Infirmary.

QUEEN'S HOSPITAL, BIRMINGHAM.—House-Physician, also House-Surgeon. Candidates for these appointments must be legally qualified medical practitioners and registered. Applications, with testimonials, to Mr. W. Young, Secretary, on before March 21.

RHAYADER UNION, RADNORSHIRE.—Medical Officer. Candidates must be duly qualified. Applications, with testimonials, to Mr. J. Jarman, Clerk to the Guardians, on or before February 23.

ROYAL MATERNITY CHARITY, 31, FINSBURY-SQUARE, E.C.—Two Physician-Accoucheurs. Candidates must be F. or M.R.C.P. Lond. Applications, with testimonials, to the Secretary, on or before February 28.

ROYAL SEA BATHING INFIRMARY, MARGATE.—Resident Surgeon. Candidates must be duly qualified. Applications, with testimonials, to the Chairman of the Directors, on or before February 26.

TORBAY INFIRMARY AND DISPENSARY, TORQUAY.—House-Surgeon and Secretary. Candidates must be duly qualified. Applications, with testimonials, to the Secretary, on or before March 7.

WEST SUSSEX (PART OF).—Medical Officer of Health. Candidates must be legally qualified. Applications, with testimonials, to Mr. R. French, Littlehampton, on or before February 25.

UNION AND PAROCHIAL MEDICAL SERVICE.

*** The area of each district is stated in acres. The population is computed according to the census of 1871.

RESIGNATIONS.

Grantham Union.—The Colsterworth District is vacant; area 16,988; population 3026; salary £37 10s. per annum.

Lichfield Union.—The St. Chad District is vacant; area 12,760; population 5688; salary £50 per annum. Also the Workhouse; salary £25 per annum.

Martley Union.—The Astley District is vacant; area 6253; population 1982; salary £50 per annum.

Stockton Union.—Mr. John Richardson has resigned the Middlesborough District; area 1080; population 28,884; salary £85 per annum.

APPOINTMENTS.

Beverley Borough.—William Procter, M.D., M.R.C.S., L.S.A., F.C.S., as Analyst.

Caxton and Arrington Union.—Edmund W. Parkinson, L.R.C.P. Edin., M.R.C.S. Eng., L.S.A., to the Wimpole District.

Chelmsford Union.—Francis E. Roche, M.D. and M.C. Queen's Univ., Ireland, to the Third District.

City of Canterbury.—Mr. Sydney Harvey, as Analyst.

Durham Union.—John O'Hanlon, L.R.C.S. Ire., L.K. & Q.C.P.I., to the Tudhoe District.

Eton Union.—Henry French, M.R.C.S., L.S.A., to the Hedgerley District.

Fulham District.—Fredk. J. Burge, M.R.C.S. Eng., L.S.A., as Analyst.

Mile-end Old Town.—Matthew Corner, M.D., M.R.C.S. Eng., L.S.A., as Analyst for the Hamlet.

St. John, Hampstead, Parish.—Charles Heisch, F.C.S., as Analyst.

Thrapston Union.—Edward Greaves, L.R.C.P. Edin., M.R.C.S. Eng., to the E District.

WE regret to hear that Dr. Thomas Hitchcock, of Wyde House, near Winchester, whilst hunting with the Hursley hounds on Monday, met with a serious accident—a horse kicked him in the leg, causing a compound fracture.

TO SOME of our profession it may be of interest to note the announcement in our advertising columns that Dr. Poore will again give a short course of instruction on "Electro-Therapeutics" at Charing-cross Hospital, on Tuesdays and Fridays, at 5 p.m., beginning on Tuesday, the 24th inst.

HEALTH AND QUARANTINE.—The Foreign Minister of Austro-Hungary has directed preparations to be made for an International Congress on Sanitary Matters and Quarantine, to which he proposes to invite foreign powers.

IMPORTATION OF ANIMAL FOOD.—An experiment is now being made for importing fresh meat from Transylvania. A meeting was held at the Cannon-street Hotel last week for the purpose of testing the meat and poultry, and a luncheon was provided. It was stated that the mutton could be delivered in London at 3½d. per lb., and that fowls would not exceed 1s. a-piece. The mutton was pronounced a little hard, but the fowls, geese, and turkeys were highly approved. Other experiments are to be made, and there appears to be some confidence in the ultimate success of the undertaking.

LOSS SUSTAINED BY EXPOSURE OF COAL TO THE AIR.—Dr. Varrentrass has been engaged in some interesting experiments concerning the important loss of power undergone by coal when exposed to the air for a certain time. He found that one specimen lost 33 per cent. in weight, and underwent a still greater deterioration in quality. This arises from the slow combustion of the volatile elements which enter into the composition of the coal, and influence its value as a combustible. Anthracite is the kind of coal which loses least on exposure, and bituminous coal that which loses most. The results of the experiments prove that all the properties and qualities of coal are diminished in proportion to the duration of the exposure. Thus the quality of the gas was found to diminish by 45 per cent., and the calorific power by 47 per cent. in exposed coal, while the same coal when sheltered only lost in the same time 25 and 12 per cent. respectively. The experiments show the absolute necessity of keeping coal dry and under cover, well protected from the deterioration effected by the air and moisture.—*Revue Scientifique*, February 6.

NOTES, QUERIES, AND REPLIES.

He that questioneth much shall learn much.—*Bacon.*

*** We are requested to announce that proxies and voting papers on behalf of Hugh Cholmeley Webb, for the forthcoming Foundation Scholarship election of the Royal Medical Benevolent College, will be thankfully received by Mrs. Webb, 22, Woburn-place, or by Mr. Stone, Royal College of Surgeons.

Dr. Drake, Montreal.—Enclosure received.

J. H. B.—We cannot answer our correspondent's query. Let him consult his ordinary medical attendant.

M. M. G.—Dr. Fetherston is the President of the Medical Society of Victoria.

Inquirer.—The *Spectator* of the 7th inst. Dr. P. H. Pye-Smith on "Experimental Physiology."

A Medical Official.—The Local Government Board, on the suggestion of Dr. Bridges, has fixed the maximum number of patients to be accommodated in the new Infirmary at Chelsea at 272.

A Five Years' Subscriber.—From the reports of the Inland Revenue Board it appears that in the year ended March 31 last there were 280,212 licensed houses for the sale of liquors in England, 24,531 in Scotland, and 45,786 in Ireland.

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Zoologist.—Professor Parker, F.R.S., commenced his course of lectures on Monday last.

S., St. Bartholomew's.—Having, since you passed in surgery, obtained the L.R.C.P. Edin., you will be admitted a member of the London College of Surgeons on April 21; but write to the Secretary.

Inquirer.—No doubt under the new system the regulations will be under the control of the Civil Service Commissioners, who will give notice of examinations from time to time.

Principals and Assistants.—We have received a letter from B, in which he says, "I can only say of the extracts you have given from A's statement, that they neither fairly, fully, nor truthfully represent the matter in dispute between us." He also says, "If any friend of A's wishes to hear both sides of the question, he (B) will be pleased to see him, but declines to discuss the matter by correspondence."

Bibliopole.—You will find a copy of Lignac's work in the library of the College of Surgeons. Ireland, in his edition of the works of Hogarth, alludes to the subject, which you will find in the "Harlot's Progress."

Army, Navy, and Indian Medical Services.

The following are the questions set at the recent examination of candidates for her Majesty's Army, Navy, and Indian Medical Services, February, 1874:—

Anatomy and Physiology.—Mr Busk.

1. Describe the fascia of the abdomen, pelvis, and perineum in the male.
2. State the origin, constitution, and general distribution of the fifth pair of nerves; and give the physiological functions of its branches.
3. Give the heads under which the principal aliments used by man may be arranged; the different purposes they subserve, and the modes in which they are respectively digested and absorbed.
4. Under what circumstances is the amount of carbonic acid exhaled increased or diminished?
5. Describe the structure, connexions, and relations of the iris; also the nerves by which it is supplied, and whence they are derived.
6. Give the physical and chemical character of urea in the pure state; and describe the way in which you would proceed to detect its presence in the fluids of the body.

Surgery.—Mr. Pollock.

1. A man was kicked by a horse on the left side of the abdomen. State the symptoms which would indicate that the kidney had been ruptured, the treatment to be adopted, and the probable result.
2. By what symptoms would extravasation of urine be detected after rupture of the urethra the result of an accident? What should be the treatment in such a case, and what is generally the ultimate result of such an injury?
3. A man was thrown from a cart, and was insensible when seen after the accident. Describe the symptoms by which fracture of the base of the skull would be detected, the probable effects of such an injury, and the treatment.
4. Describe the symptoms by which inherited syphilis may be detected in a young person from ten to twenty years of age, what tissues are most commonly affected, and what treatment is usually most beneficial.
5. By what symptoms may dislocation of the hip into the obturator foramen be detected, and by what means should its reduction be effected?
6. Describe the symptoms of popliteal aneurism, and the treatment which should be adopted for its relief.

Medicine.—Dr. Parkes.

1. Enumerate the different forms of paralysis which arise from causes seated within the cranium, and mention what these causes are. Enter minutely into the symptoms, diagnosis, and treatment of progressive muscular atrophy.
2. Give the physical signs and symptoms, causes, and effects of emphysema pulmonum.
3. What are the symptoms, causes, and treatment of cirrhosis of the liver?
4. What are the chief abnormal conditions of the mesenteric glands?
5. What are the causes of abortion? Give the conditions which justify the production of abortion, or of premature labour.
6. Mention the symptoms produced by quinine, strychnine, atropine, and aconitine, and state for what purposes they are used in medicine. How would you detect strychnine?

Zoology.—Dr. Thomson.

1. Give the characters of molluscs, and of their principal subdivisions.
2. Describe the structure and development of a bird's feather.
3. To what division of the animal kingdom do sponges belong? Describe their structure.
4. Give a sketch of the structure of the organs of respiration in the different classes of animals.
5. Describe the economy of a bee-hive, the differences between its inhabitants, and their mode of increase.

Botany.

6. What are the principal vegetable poisons? Give the name and natural order of the plant producing each, and state from what part of the plant each is obtained.
7. Give the character of the order *Fungi*, and of its principal subdivisions.
8. Contrast the characters and functions of the root and stem in plants.
9. What is the composition of sugar, and what is its function in plants? What plants yield it for economic purposes? Where are these found indigenous and cultivated, and how is the sugar extracted?
10. Give the characters of the order *Ranunculaceæ*, and state the structure of the carpel in each of the British genera.

Physics, etc.

11. Explain the nature and mode of formation of dew, hoar frost, and fog.
12. Give an account of the principal oceanic currents, and describe their effect on the temperature of the land.
13. Define the following terms:—Combustion, crystalline, colloid, exmose, capillary attraction, refraction, reflexion, focus.
14. Where is nitrogen found in nature? Into what organic compounds does it enter as a constituent?
15. Give a table of the principal geological formations in their order of succession, and state briefly the position of each in Great Britain.

Volunteer Medical Service.

TO THE EDITOR OF THE MEDICAL TIMES AND GAZETTE.

Sir,—It is as well that volunteer surgeons should know how the present regulations affect them, especially as several have been induced to undergo the professional examination in order to earn the increased grant for their corps.

As the present regulations stand (issued last autumn), no non-combatant officer (the medical officer and the quartermaster) can draw the 50s. increased capitation grant (though he be passed) from Government unless he be returned as efficient, and so qualified to obtain the ordinary 30s. capitation grant common to himself and all commissioned officers. But to be efficient every medical officer must be present at fifteen drills during the year, and be so returned by the commanding officer. Practically such a regulation destroys the advantages offered to most medical officers in the Volunteer Service of earning any money for their corps, because, in the first place, few know of the present regulations, and, secondly, but few live sufficiently near to their head-quarters to be enabled to attend such a number of drills. It is true that the attendance at these drills simply implies that the officer is present on parade, or at the drill, and that nothing else is required of him; but to be called upon to waste this time in such a useless attendance is an absurdity, and annoying, and could only have been insisted on in order to save the capitation grants hitherto earned by all non-combatant officers in virtue of their commissions or of having passed the special volunteer medical examination. Hitherto, as long as we rendered efficient medical services to the satisfaction of our colonels, we were necessarily returned as such to the War Office, and the corps drew our capitation grants; but now, unless fifteen useless hours are spent at drills and parades, such advantages are withdrawn. To myself, I confess, the inconvenience is slighter than to many, as I live close to my head-quarters, and can drop in any evening at drill; but it is not so with most of the volunteer medical officers, the majority of whom cannot possibly render such useless attendance.

I am aware that the regulations are made in order to assimilate the services of the non-combatant officers with the combatant; but the difference between the two is great. The latter are following an occupation different from their calling, and should be required to learn their volunteer profession; but medical officers simply act as such, and are in their corps such as they are out of it, and the presence at fifteen drills cannot render them more proficient in their profession. The regulations can only have been framed in the spirit of paltry economy, and in the hope and with the intention of depriving most volunteer regiments of the capitation grants which their medical officers hitherto have earned. Surely this is a question for the Association of Volunteer Medical Officers to ventilate, and, if possible, get modified without loss of time.

I am, &c., A Surgeon of a Volunteer Engineer Corps.

February 16.

A *Record* records—

"There are *nuns* at St. John's;
At St. John's there are *none*."
We record *Record's* pun.

An Old Member.—There will be no Hunterian Oration this year. The discourse is now biennially delivered.

Metastasis.

TO THE EDITOR OF THE MEDICAL TIMES AND GAZETTE.

Sir,—As the science of medicine improves, physical explanations are substituted for metaphysical. Thus we read in old books of amaurosis "by metastasis," where we should now say "by plugging of the ophthalmic arteries." For instance, we read in an old volume of the *Edinburgh Medical and Surgical Journal* (1826) a case by Mr. Lessey of a young woman, many years an invalid, subject amongst other things to sudden and severe attacks of dyspnœa, threatening suffocation, and attended with loss of voice. On a certain day all the "difficulty of breathing *suddenly* left her, and her voice became distinct, strong, and clear; but a sudden and very violent pain seized her head, and she screamed out loudly for help, to the astonishment of the people with whom she lodged. They hastened to her assistance, and found her in an agony of pain and quite *blind!*" Mr. Lessey had the head shaved and leeched and blistered, which relieved the pain, "but produced no alteration in the sight." The pupil was at a mean between contraction and dilatation, and totally motionless. Purgatives, blisters, and mercurials were administered to no purpose. But all of a sudden, one year and eight months after the loss of sight, she was being led through the streets when she began to see the gas-lamps indistinctly, and in a month was able to read large print with some difficulty.

Surely this was a case of vegetation or deposit in the aortic or mitral valves, and sudden plugging of one of the cerebral arteries, followed by wasting of the clot? I am, &c., Bookworm.

Dear, but not Good.—The *Times of India* has a story how the Dewan of the Guicwar of Baroda, being ill, sent for a doctor, who desired the Dewan to send him next day a bottle of his urine for examination. The doctor used the Hindustani term *karoova* to express urine, and this term was not understood by the patient; but being desirous of obeying the doctor, and sending him what he wanted, the Dewan rummaged the whole town for *karoova*. At last a crafty fellow from Delhi offered to supply it, and sent a bottle, for which he charged fifty rupees. The Dewan tasted the liquid, and pronounced it not nice. However, next morning he sent the bottle to the doctor, saying that it had cost fifty rupees, and a great deal of trouble, and after all was not nice! The doctor "smole a smile," and then explained the real meaning of *karoova* to the unhappy Dewan.

Anatomicus.—There is nothing new in the doctrine of the analogy between human and animal structures, or in the opposition to the doctrine of design. R. Knox, in some of his earliest writings, now nearly half a century ago, avowed his dissent from the "Bridgwater Treatises," a heavy series of works published in behalf of the doctrine of design. It appears to us that no sane man will deny design; but he may still hold that every structure in every animal is not formed specially for the benefit of that animal,—nay, rather that some structures exhibit mere conformity to the general plan of the animal kingdom, rather than utility.

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L.R.C.P., Lond.—It is utterly impossible to say when the scheme will be adopted. There was another meeting of the Conjoint Committee at the College of Physicians on Monday last.

COMMUNICATIONS have been received from—

Professor Halford, Melbourne; Mr. R. Davy, London; Mr. A. J. Burness, M.B., London; The Surgeon of a Volunteer Engineer Corps; Mr. T. P. Pick, London; Dr. W. Squire, London; One who has been Victimised; Dr. James Neal, Sandoun; Dr. Bathurst Woodman, London; The Secretary of the London Anthropological Society; Mr. Ingpen, London; Mr. G. Gaskoin, London; Dr. Sparks, London; Mr. J. W. Hulke, London; Dr. Wiltshire, London; Dr. Handfield Jones, London; Mr. J. Ashburton Thompson, London; Dr. J. Hughlings-Jackson, London; Mr. John Chatto, London.

BOOKS RECEIVED—

Ross on Ventilation—McCall Anderson's Introductory Address in Anderson's University—Duncan on the Extension and Increase of the Scientific Spirit in Medicine—Dickson's Medicine in Relation to Mind—Milton on the Modified Turkish and Vapour Bath—Maudsley's "Responsibility in Mental Disease"—Memorials of Professor Syme, by Robert Paterson, M.D.

PERIODICALS AND NEWSPAPERS RECEIVED—

Lancet—British Medical Journal—Medical Press and Circular—London Medical Record—Nature—Allgemeine Wiener Medizinische Zeitung—Berliner Klinische Wochenschrift—Bulletin Général Thérapeutique—Gazette Médicale—Gazette Hebdomadaire—Le Mouvement Médicale—La Tribune Médicale—Le Progrès Médical—La France Médicale—Pharmaceutical Journal—Revista Medico-Quirúrgica—Irish Medical Gazette—Practitioner—The New York Druggist—Edinburgh Courant—Monthly Review of Dental Surgery—New York Medical Journal.

APPOINTMENTS FOR THE WEEK.

February 21. *Saturday* (*this day*).

Operations at St. Bartholomew's, 1½ p.m.; King's College, 2 p.m.; Charing-cross, 2 p.m.; Royal Free, 9 a.m. and 2 p.m.; Hospital for Women, 2½ a.m.; Royal London Ophthalmic, 11 a.m.; Royal Westminster Ophthalmic, 1½ p.m.; St. Thomas's, 9½ a.m.

Royal Institution, 3 p.m. Mr. R. Bosworth Smith, "On Mohammed and Mohammedanism."

23. *Monday*.

Operations at the Metropolitan Free, 2 p.m.; St. Mark's Hospital for Diseases of the Rectum, 2 p.m.; St. Peter's Hospital for Stone, 3 p.m.; Royal London Ophthalmic, 11 a.m.; Royal Westminster Ophthalmic, 2½ p.m.

Medical Society of London, 8½ p.m. Mr. Maunder will exhibit a patient the subject of Excision of the Ankle-Joint; also the patient's child, whose corresponding lower extremity is short. Dr. Farquharson, "On some Peculiarities of Pneumonia in Early Life." And communications by Mr. J. A. Bloxam and others.

Royal College of Surgeons of England, 4 p.m. Mr. W. K. Parker's Lecture on "The Structure and Development of the Vertebral Skull."

24. *Tuesday*.

Operations at Guy's, 1½ p.m.; Westminster, 2 p.m.; National Orthopædic, Great Portland-street, 2 p.m.; Royal London Ophthalmic, 11 a.m.; Royal Westminster Ophthalmic, 1½ p.m.; West London, 3 p.m.

Anthropological Institute, 8 p.m. Meeting.

Royal Institution, 3 p.m. Prof. Tyndall, "On the Physical Properties of Liquids and Gases."

Royal Medical and Chirurgical Society, 8½ p.m. Mr. Fairlie Clarke, "Cases of (so-called) Ichthyosis Linguæ." Mr. George Gaskoin, "On the Relations of Asthma to Cutaneous Disease;" or, Dr. Hayne, "On the Amount of Carbonic Acid in the Air on board Wooden Frigates."

25. *Wednesday*.

Operations at University College, 2 p.m.; St. Mary's, 1½ p.m.; Middlesex, 1 p.m.; London, 2 p.m.; St. Bartholomew's, 1½ p.m.; Great Northern, 2 p.m.; St. Thomas's, 1½ p.m.; Samaritan, 2½ p.m.; King's College (by Mr. Wood), 2 p.m.; Royal London Ophthalmic, 11 a.m.; Royal Westminster Ophthalmic, 1½ p.m.

Royal College of Surgeons of England, 4 p.m. Mr. W. K. Parker's Lecture on "The Structure and Development of the Vertebral Skull."

26. *Thursday*.

Operations at St. George's, 1 p.m.; Central London Ophthalmic, 1 p.m.; Royal Orthopædic, 2 p.m.; University College, 2 p.m.; Royal London Ophthalmic, 11 a.m.; Royal Westminster Ophthalmic, 1½ p.m.

Hunterian Society (London Institution), (Council Meeting, 7½ p.m.), 8 p.m. Dr. Barnes's Inauguration Address. Dr. Braxton Hicks, "On Paracentesis of the Abdomen in Ascites, with Tumour." "On Incontinence of Urine in Females," and "On a Case of Albuminuria in Pregnancy."

Royal Institution, 3 p.m. Prof. W. C. Williamson, "On Cryptogamic Vegetation."

27. *Friday*.

Operations at Central London Ophthalmic, 2 p.m.; Royal London Ophthalmic, 11 a.m.; South London Ophthalmic, 2 p.m.; Royal Westminster Ophthalmic, 1½ p.m.; St. George's (ophthalmic operations), 1½ p.m.

Clinical Society, 8½ p.m. Adjourned Debate on Mr. Hewett's address "On Pyæmia." Dr. Cayley, "On a Case of Hæmoptysis." Mr. W. Haward, "On a Case of Blood-cyst of Hand."

Quekett Microscopical Club, 8 p.m. Mr. Hawkins Johnson, "The Microscopic Structure of Flint and Allied Bodies."

Royal College of Physicians, 5 p.m. Goulstonian Lectures—Dr. Payne, "On the Origin and Relations of New Growths."

Royal College of Surgeons of England, 4 p.m. Mr. W. K. Parker's Lecture on "The Structure and Development of the Vertebral Skull."

Royal Institution (Weekly Evening Meeting, 8 p.m.), 9 p.m. Mr. Francis Galton, "Men of Science; their Nature and Nurture."

VITAL STATISTICS OF LONDON.

Week ending Saturday, February 14.

BIRTHS.

Births of Boys, 1192; Girls, 1171; Total, 2363.
Average of 10 corresponding years 1864-73, 2318·3.

DEATHS.

	Males.	Females.	Total.
Deaths during the week	789	808	1597
Average of the ten years 1864-73	775·0	758·4	1533·4
Average corrected to increased population	...	...	1687
Deaths of people aged 80 and upwards	...	...	69

DEATHS IN SUB-DISTRICTS FROM EPIDEMICS.

	Population, 1871.	Small-pox.	Measles.	Scarlet Fever.	Diphtheria.	Whooping-cough.	Typhus.	Enteric (or Typhoid) Fever.	Simple continued Fever.	Diarrhœa.
West	561359	...	13	2	1	6	...	6	1	1
North	751729	1	15	3	1	17	2	6	1	2
Central ...	334369	1	8	...	...	4	1	1	...	2
East	639111	1	8	7	...	28	1	3	3	1
South	967692	1	9	2	2	16	...	4	2	1
Total	3254260	4	53	14	4	71	4	20	7	

METEOROLOGY.

From Observations at the Greenwich Observatory.

Mean height of barometer	29·981 in.
Mean temperature	36·3°
Highest point of thermometer	51·5°
Lowest point of thermometer	21·0°
Mean dew-point temperature	28·6°
General direction of wind	N., S.E., & S.W.
Whole amount of rain in the week	0·02 in.

BIRTHS and DEATHS Registered and METEOROLOGY during the Week ending Saturday, February 14, 1874, in the following large Towns:—

Boroughs, etc. (Municipal boundaries for all except London.)	Estimated Population to middle of the year 1874.*	Persons to an Acre. (1874.)	Births Registered during the week ending Feb. 14.	Deaths Registered during the week ending Feb. 14.	Temperature of Air (Fahr.) Highest during the Week.	Lowest during the Week.	Weekly Mean of Mean Daily Values.	Temp. of Air (Cent.) Weekly Mean of Mean Daily Values.	Rain Fall. In Inches.	In Centimetres.
London	3400701	45·1	2363	1597	51·5	21·0	36·3	2·39	0·02	0·05
Portsmouth ...	120436	26·8	69	51	50·3	25·0	38·9	3·83	0·10	0·25
Norwich	82257	11·0	53	41	50·0	20·0	33·8	1·01	0·07	0·18
Bristol	192389	43·3	163	90	...	...	...	...	...	...
Wolverhampton ...	70896	20·9	52	41	51·3	21·4	34·2	1·22	0·26	0·91
Birmingham ...	360892	43·0	335	198	53·4	21·8	35·3	1·84	0·28	0·71
Leicester	106202	33·2	96	44	53·7	20·5	35·4	1·89	0·23	0·58
Nottingham ...	90894	45·5	82	49	49·0	19·9	33·6	0·90	0·09	0·23
Liverpool	510640	98·0	382	324	51·0	24·0	36·0	2·22	0·07	0·18
Manchester ...	355389	82·8	228	230	50·0	20·0	34·1	1·17	0·43	1·09
Salford	133168	25·7	118	66	50·7	22·0	35·2	1·78	0·38	0·97
Oldham	86281	18·5	71	55	47·0	...	...	...	0·40	1·02
Bradford	163056	22·6	91	64	48·3	21·1	33·3	0·72	0·12	0·30
Leeds	278798	12·9	211	179	48·0	21·0	34·5	1·39	0·19	0·48
Sheffield	261029	13·3	174	139	52·0	16·3	35·2	1·78	0·40	1·02
Hull	130996	36·0	101	76	52·0	20·0	35·3	1·84	0·46	1·17
Sunderland ...	104378	31·6	90	28	...	...	...	...	...	...
Newcastle-on-Tyne	135437	25·2	87	76	50·0	21·0	34·0	1·11	0·14	0·36
Edinburgh	211691	47·8	122	96	...	...	...	...	...	...
Glasgow	508109	100·4	359	307	50·3	23·8	36·0	2·22	0·33	0·84
Dublin	314666	31·3	176	160	56·0	24·5	40·4	4·66	0·58	1·47
Total of 21 Towns in United Kingdm	7618655	36·6	5424	3911	56·0	16·3	35·4	1·89	0·26	0·66

At the Royal Observatory, Greenwich, the mean reading of the barometer last week was 29·98 in. The highest was 30·43 in. on Tuesday evening, and the lowest 29·38 in. at the end of the week.

* The figures for the English and Scottish towns are the numbers enumerated in April, 1871, raised to the middle of 1874 by the addition of three years and a quarter's increase, calculated on the rate which prevailed between 1861 and 1871. The population of Dublin is taken as stationary at the number enumerated in April, 1871.

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ORIGINAL LECTURES.

CLINICAL LECTURES DELIVERED IN MIDDLESEX HOSPITAL.

By JOHN W. HULKE, F.R.S.

ON CASES OF FRACTURE OF THE VERTEBRAL COLUMN, WITH INJURY TO THE SPINAL CORD.

(Concluding Part.)

Gentlemen,—The cases already brought before you were—a fracture at the second cervical vertebra, with division of the spinal cord, instantly fatal; one of fracture, with displacement of the spinous process of the fifth dorsal vertebra and motor paraplegia, where voluntary mobility began to return in one leg on the seventh, and in the other about the seventeenth day; and a third where four dorsal vertebræ had their spinous processes, with portions of the laminæ, detached, the eighth centrum, carrying those above it, had slipped forward upon the ninth, and the whole thickness of the cord was severed, death occurring on the seventieth day from bedsores, septicæmia, cystitis and pyelitis, suppression of urine. The case to which I now ask your attention has had a more fortunate termination.

A carpenter, aged 48, fell the whole depth of a well-staircase (about fifty feet), and within half an hour after was admitted into Brodripp ward, at 3 p.m., November 24, 1873. His face was white; pulse small and very weak. He had urgent thirst—he constantly begged for water. Had great pain in the back, where there was a puffy swelling over the ninth vertebra, the spinous process of which moved freely with crepitus. Voluntary mobility and reflex irritability were absent from both lower limbs, but their sensibility was not notably blunted. He had manifestly sustained a fracture of the ninth vertebra, with damage to the cord involving both antero-lateral white columns, but not essentially compromising the grey substance.

He was placed, as the others had been, on a double hair-mattress, with amadou along the spinal column to protect it, and a water-pillow under his sacrum; and as he was restless with pain, and would not lie still, one grain of opium was given him from time to time so as to keep him easier. He could not spontaneously micturate. A catheter was therefore passed every six hours. Next day he complained greatly of pains in the soles, darting up the legs (the surface of the limbs was not hyperæsthetic), and of constriction around the lower part of the chest.

November 26 (second day).—He could slightly draw up both feet, and bend and extend the toes. A trifling scalp-wound which had at first escaped notice was discovered.

28th.—Notwithstanding an anodyne draught, he slept little last night; pain in the legs kept him awake. A large bruise has come out upon the left flank. At the bottom of the sacrum a small bluish spot has appeared, and threatens to slough.

December 1.—The discoloured sacral spot has disappeared. This morning he twice voided a little urine.

3rd.—Bladder irritable. He woke often in the night, wanting to micturate; urine alkaline and containing pus. From this time until his convalescence the bladder was washed out with an acid antiseptic solution every time the catheter was passed.

8th.—Has regained complete power over his bladder. He can move both legs better.

15th.—Bowels first moved since the accident.

January 7, 1874.—Urine is now again acid. He can lift both legs off the bed, and move them freely. About this time the epidermis of his legs exfoliated very freely, and he was much troubled by a burning sensation in the soles.

By February 5 he had improved so much that I allowed him to sit up, wearing a spinal support. He could walk a few yards, and his legs were weekly growing stronger. He may be now considered convalescent.

The quick return of motor power in the legs makes it clear that the damage to the spinal cord was rather a bruise than any considerable solution of continuity of nerve fibres. Recollecting the distance he fell (about fifty feet), and his age (nearly fifty), his recovery is remarkable. The low situation of the fracture (not much above the termination of the cord) was greatly in his favour.

The case to which I referred in the early part of this lecture as having happened some time since, will serve to show you the usual course of fractures between the exit of the phrenic nerves and the upper part of the back.

The patient, a powerful man, aged 46, fell off a van and pitched on his head. He was taken up nearly insensible, and brought at once to the Hospital in the evening of July 22, 1865. His mates said he had been drinking. At the vertex was a scalp-wound, without apparent injury to the underlying bone. He did not move his legs. By speaking sharply to him, he could be roused for a moment out of his stupor; he knew what was said, and complained of pain in his neck and between his shoulders when asked where he was hurt.

At ten o'clock next morning he had become perfectly conscious. Complete loss of voluntary motor power, of reflex irritability, and of sensibility was noted as high as the level of the sixth costo-sternal joint; and a puffy bruise over the spinal column in the nape and the upper part of the back was found. His breathing was mainly diaphragmatic. The lower intercostal muscles did not contract. The respiratory rhythm was disordered, every twelfth inspiration being deeper than those preceding and following it. He could not void urine, and he was not conscious of any discomfort from a distended bladder. He had marked priapism, which continued until his death (25th). At 1.30 p.m. he vomited. The pulse soon after this was 98. At 7.30 p.m. his respirations were 30 per minute (the pulse in the same time only 72), and there was loud mucous râle in the air-tubes. I was now surprised at the remarkable dry pungent heat of both arms, and this whilst his face was sweating. I regret that no exact observations of the temperature of the arms were taken, little attention was at that time paid to clinical thermometry. At 11.30 p.m. he was very drowsy, and large beads of sweat ran down his face. Respiration was more embarrassed. Urine was now dribbling from the penis, though at 7.30 the bladder had been thoroughly emptied with the catheter.

July 24.—He passed the night very restlessly, harassed by dyspnœa, which, from 3 to 4 a.m., was terribly urgent, at which time a solid stool escaped from him unconsciously. At 10.30 a.m. he found slight difficulty in moving both arms, most in the left; they could no longer execute any concerted movements smoothly and regularly. At 10 p.m. he muttered incoherently, but still understood what was said to him, and answered pertinently. His breathing was now extremely difficult.

25th.—At 2 a.m. he died suffocated, about fifty-two hours after the accident.

At the autopsy next day, much blood was found extravasated beneath the skin and amongst the muscles in the nape and between the shoulders. A fracture was discovered passing through the inter-vertebral disc between the seventh cervical and the first dorsal vertebra, and crossing the laminæ of the seventh cervical, so as to separate the hinder part of the arch, bearing with it the spinous process. There was not any displacement of the vertebral centra. A little fluid blood was noticed upon the outer surface of the dura mater, and when this membrane was slit open the surface of the cord at the level of the lacerated disc, just below the cervical enlargement, was seen to be slightly ecchymosed; it had the appearance as if it had been squeezed. After immersion in a solution of chromic acid, sections were made through this part, and at short intervals above and below it. At the level of the torn disc all the tissues of the cord were found reduced to a reddish pulp, which had not become hardened by the acid. It consisted of blood and disintegrated nervous elements, and it occupied the place of nearly the whole area of grey substance. The tube of white substance enclosing it was tinged with effused blood. The red pulpy condition extended downwards for about the space of one inch below the level of the upper border of the first dorsal vertebral centrum, and upwards, in a diminishing area, as high as the third cervical vertebra, where it was limited to the grey substance immediately investing the central canal, and finally to this tube itself.

You will have remarked the occurrence of priapism in this and the case ending fatally on the seventieth day. The common cord-lesion in these cases was entire destruction of the sectional area of grey substance at the fracture—a much deeper injury than was certainly sustained in the cases where recovery ensued, and from which priapism was absent. I have observed the same in other cases than those I have brought under your notice to-day, and whilst my own clinic has not furnished me with a sufficiently large number of instances to justify me in

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generalising, I am disposed to look upon priapism as an ill omen.

The penis, you know, receives both spinal and sympathetic nerves. The former, derived from the pudic branch of the sacral plexus, are chiefly distributed to the skin and to the mucous membrane of the urethra, and also to the musculi erectores penis and accelerator urinæ, and only to a very slight extent to the cavernous bodies. The latter, according to Kölliker's researches, are exclusively supplied to the vascular tissues; and he has suggested that turgescence of the penis in erection is explainable on the supposition of a paralysis of these sympathetic nerves producing relaxation of the arterioles, which allows so large an influx of blood into the erectile tissues as to distend them. Blushing upon emotion may be similarly explained on the hypothesis of a transient vaso-motor paralysis affecting the small cutaneous arterioles of the cheeks. The priapism of paraplegia has been, in every case where I have witnessed it, not a complete erection of the penis, but (as I think Mr. Shaw has described it) a swollen semi-turgid condition not amounting to stiffness—such a turgescence as a prolonged paralysis of the vaso-motor nerves might occasion. It has never, within my own observation, been accompanied by emissions, although I have more than once seen the penis lift itself up a little way off the pubis, on which it was lying, when exposed to a current of cold air upon removing the bedclothes. Indeed, emission is not to be expected, considering the slightness of other reflex muscular contractions noticeable in cases where the whole thickness of the spinal cord has been seriously damaged—a slightness which is remarkable, considering the vigorous muscular contractions excitable, by stimulating the efferent nerves, in parts below the level of the section in animals whose spinal cords have been experimentally divided with a sharp knife. The explanation of this is to be sought in the greater damage and more extended shock inflicted upon the spinal cord when it is accidentally crushed than when it is carefully and cleanly cut across with a thin and sharp knife—a shock which for a period completely annihilates all its functions, and from which it does not recover until after a lapse of time in some sort proportionate to the damage. In the first of our cases mentioned in the beginning of this lecture you will remember that in the right limb, where the paralysis of voluntary motion was complete, there was also for several days complete excito-motor palsy; whilst in the left leg, where voluntary motion was not quite lost, feeble excito-motor movement of the toes could be elicited. In the second case (where the cord was found to have been completely severed) excito-motor contractions of the feet could be induced on the second day after the accident, and then they gradually became feebler, and finally ceased some time before his death on the seventieth day; their first return marking the recovery of the spinal cord from the shock of the injury, and their waning signifying the progressive deterioration of the tissues of the cord. In our third case, where the injury of the cord was less deep than in the first, reflex movements of the toes could be provoked on the second day. In the fourth case, where the patient died fifty-two hours after the complete division of the cord, they were never re-established. Here the cord was broken up by hæmorrhage for a considerable distance; whilst in another, ending fatally after fifty hours, where the cord was cut more cleanly across by a sharp fragment of the lowest cervical vertebra, marked reflex movements of the toes occurred within eighteen hours when the sole was pricked. In the fifth case there is a point worthy of a moment's notice. I refer to vomiting. It is very plain that here it must have been produced by contractions of the stomach itself alone, without the co-operation of the abdominal walls, for these were completely paralysed. I suppose the activity of the stomach in vomiting is now scarcely doubted by any, notwithstanding Majendie's celebrated experiments to demonstrate that it is wholly passive. The high temperature of this patient's anus is interesting in connexion with the experiments which have been made on animals, to prove the location of a heat-regulating centre in the cord at the root of the neck and upper part of the back. It was just this region of the cord which was injured in this man. I cannot offer you any satisfactory solution of the mode in which this rise of temperature is brought about. The suggestion of vaso-motor paralysis and dilatation of cutaneous bloodvessels is met by the fact that, though hot, the surface was not obviously redder than the other parts of his body.

In conclusion, gentlemen, returning to practical matters, in these desperate injuries, the greatest attainable rest of the fracture; the relief of pain by the judicious use of opium; the arrest of inflammation about the fracture in its onset; the prevention of bedsores, and of cystitis and its consequences—are the measures by the diligent use of which a minority will recover.'

ORIGINAL COMMUNICATIONS.

PROPHYLAXIS OF POST-PARTUM HÆMORRHAGE.

By CHARLES J. EGAN, A.B., M.R.C.S.E.,
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The subject of post-partum hæmorrhage is one of considerable importance, not only from its direct danger to the life of the patient, but also on account of the constitutional debility and long convalescence after delivery resulting from it, as well as the great anxiety it places on the professional attendant. Would it not, therefore, be a great boon if a useful prophylactic treatment for such hæmorrhage could be found—a treatment to be used beforehand in cases where such hæmorrhage is to be apprehended.

Having this idea, I pursued in several cases (which I now wish to bring to the notice of other practitioners) a line of treatment which may be called "prophylactic"—to obviate, if possible, this tendency to hæmorrhage: to be used in those cases in which post-partum hæmorrhage has previously occurred, and in which, from the constitutional character, it may be expected. This subject I have previously mentioned in communications sent by me, and published in the *Medical Times and Gazette*, November 25, 1871, and October 12, 1872; and I now add reports of other cases in which I have used this treatment since.

The prophylactic treatment which I have tried consists in administering gallic acid daily for six weeks previous to the time of the expected confinement. I give three grains of gallic acid made into a pill, with extract of rhubarb, twice a day for six weeks previous to labour, and I have never found this treatment to interfere in the smallest degree with the health of the patient, or to have any bad effect on the constitution of the child; and I have found that any woman who has once gone through the perils of post-partum hæmorrhage is only too willing to follow any regimen or treatment that will promise her a less risk of such hæmorrhage.

I selected gallic acid for use in these cases, as it is reputed to have a tonic action in dyspeptic cases—a histogenic action,—and may therefore be supposed to strengthen muscular fibre, as well as an astringent action, making the blood more coagulable (Pareira, 4th edition, vol. ii., p. 355), and I have found that its use for some time does not interfere with the general health or produce constipation of the bowels when administered with the extract of rhubarb.

I hope that the following cases, along with those already published in the *Medical Times and Gazette*, may lead others (who have more opportunity than I have) to turn their attention to the prevention of hæmorrhage by prophylactic treatment—a treatment which can be tried in many cases, and is far preferable to waiting until labour has come on, flooding set in, and then arrested by the usual treatment only when the patient is pulseless and almost dead:—

Case 1.—Mrs. H., a small woman, pale complexion, rather inclined to fat, and of soft muscular fibre. I attended her in her second confinement, which was short in duration (only lasting three hours from commencement of labour pains to the birth of the child), and the birth of the placenta was immediately followed by profuse hæmorrhage. This was checked by administration of ergot, application of cold water, pressure over the uterus, and injection of cold water into the uterus. I was afterwards informed that this lady in her first confinement nearly died from flooding. On her next becoming pregnant, I was engaged to attend her, and, advising her to follow some treatment to obviate the tendency to hæmorrhage, I prescribed gallic acid gr. iij., extract rhei gr. j., in pills; one pill to be taken morning and evening daily for six weeks previous to the time of the expected confinement. This treatment was systematically carried out, and the medicine in no way interfered with her general health. I was called to see her as soon as labour set in, and I immediately attended. Before I arrived the child was born, the labour having lasted

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only one hour. The child was born before the arrival of the nurse, and half an hour before I had got to the house. The nurse separated the child; but, not being very experienced, did not put on a binder. The placenta came away as soon as I made slight pressure over the uterus; and neither with the birth of the child nor after the expulsion of the placenta did the discharge of blood exceed what is usual in natural and ordinary labour.

Case 2.—Mrs. T. This patient was a large, florid woman, very fat, sanguineous complexion, full-blooded, and just the sort of person in whom one would expect flooding. The first time I attended her was in her eighth confinement. The labour was short—only four hours from first pains to birth of child. The pains were strong and regular, and the presentation natural. The placenta was partially adherent to the uterus, and had to be removed by the hand. The introduction of the hand into the uterus in cases of retained placenta is, as a rule, a good preventive of hæmorrhage; but in this case it had no such effect, as the removal of the placenta was immediately followed by profuse hæmorrhage. I administered ergot, applied cold water to sacrum and abdomen, and used pressure over the uterus and uterine injections of cold water, without any benefit; and finally injected tinctura ferri perchloridi (in the proportion of one to three of water), which successfully controlled the hæmorrhage, but left the patient very weak and almost pulseless. She, however, made a good recovery. On her again becoming pregnant I followed the treatment mentioned above, and when labour set in I was immediately in attendance. The labour lasted four hours, and was in all respects natural. As soon as the os was fully dilated, and the head well in the pelvis, I administered a dose of ergot. The child was soon born; but the placenta, adherent as in the previous labour, had to be removed by the hand, after which the womb contracted well, and there was no more loss of blood than is usual in ordinary labour.

Case 3.—Mrs. F. This lady, of middle height, fat, and of sanguineous complexion, came to town to be under my care during her confinement, as in all her previous labours she had suffered from profuse hæmorrhage, the flooding on two occasions being almost fatal. She was now pregnant for the twelfth time, and I at once put her under the treatment above described. She pursued it regularly for six weeks, when labour set in, which was short and natural, and accompanied by no more than ordinary loss of blood.

Of these cases, I consider that the first is of most importance, as the child was born, and every facility (from want of attention) was given for flooding before either the nurse or myself were in attendance; and therefore I consider it shows more fully the efficacy of prophylactic treatment.

In the second case I was prepared to meet the emergency, and therefore administered ergot before the birth of the child, although the pains were regular, and quite strong enough. In this case it may perhaps be said that the introduction of the hand into the uterus to remove the placenta prevented hæmorrhage. Yet the removal of the placenta on the first occasion on which I attended her did not prevent most profuse flooding, which was only checked by the injection of tincture of perchloride of iron.

ON THE MEDICINAL DOSE OF FREE PHOSPHORUS.

By J. ASHBURTON THOMPSON,

Surgeon-Accoucheur to the Royal Maternity Charity; Surgeon at King's-cross to the Great Northern Railway Company, etc., etc.

Special attention has lately been directed in England to the use of phosphorus as a therapeutic agent, and evidence is accumulating to show that in certain disorders and under certain circumstances it is a useful remedy. On the Continent these facts have long been appreciated, and though no very thorough scientific inquiry has been made into the uses and mode of action of free phosphorus until within the last seven or eight years, it has for some time been admitted to the codices of France and Prussia, and is now in comparatively general use in those countries. In England, with few and trifling exceptions, it has not been recognised as a trustworthy or efficient remedial agent; and perhaps its extremely poisonous qualities, and the apparently treacherous manner in which it manifests them, have militated against its general use. But, like many other active poisons that have come to be numbered among the most valuable drugs contained in the Pharmacopœia, a more accurate knowledge of its properties will without doubt lead to its admission to the same roll. Upon the special points of which it is proposed to treat in this communication—viz., the dose and best mode of administering free phosphorus,—no trustworthy information except of a fragmentary kind is available. The only guides on these points are contained in a few items scattered through the medical periodicals; or they are only incidentally noticed in the essays of Lecorché, Mialhe, and Dujardin-Beaumetz, written to elucidate the physiological action of the drug or its pharmaceutical preparation. I propose, then, to examine these sources of information, and to collate them; and to attempt to deduce some rules which may enable those who wish to inquire further into the therapeutic value of this element to conduct their observations with safety and advantage.

The history of the internal use of phosphorus dates almost from its discovery by Brandt, Boyle, and Künckel. In 1721 the latter writer records his employment of it, and praises its stimulating properties. A little later Mentz published at Wittemburgh a dissertation on the internal use of phosphorus, and relates three successful instances of its employment in "malignant fevers." This account was followed in 1763 by a dissertation from Boennekenius. No attempt, however, seems to have been made by these authors to fix any certain quantity as a dose; and it was not until 1798 that Leroy(a) laid down some rules on this head. He had, he says, only the works of some German physicians to draw upon for information, and they had been in the habit of giving as much as twelve grains for a dose. With some prudence he began his experiments by taking a bolus of three grains himself, and nearly succumbed to it. His symptoms, however, seem to have been of the kind which may be distinguished as primary or irritative, for he found himself feeling unusually well the next day. It seems a little difficult to understand how it is that all the patients treated by the above-named authors, and even Leroy himself, were not poisoned. But until the time of the latter physician, if any method were known of dissolving phosphorus, at all events it was administered internally by them only in the solid state. In this condition, phosphorus, unless very finely divided, does not easily produce its characteristic symptoms, and it has been shown by M. Personne's experiments that a large fragment need not of necessity undergo any change of consequence to the subject in its passage through the body. M. Personne's experiments were conducted on dogs, and the same fact has been noted by M. Tilley in the case of a cat. Thus, these patients were probably subjected to the effect only of a solution of the superficies of the mass. However this may be, the older records are not without their fatal cases of poisoning with phosphorus medicinally administered, of which one example will be sufficient. Weickard relates the case of a Jew who, having fallen into an apoplectic fit, received three grains of phosphorus, and the next day five or six grains more. He died, and the appearances on dissection, as well as the symptoms before death, pointed, as they well might, to the fatal effects of the remedy rather than of the disease. Leroy seems to have very soon discovered the imprudence of prescribing it in the doses in which, he says, his only authorities had given it. He was probably unaware of the narrow escape of his life which he had had in taking his experimental dose of three grains; but he shortly concludes that one-fourth of a grain given during the day is sufficient to produce "*des grands effets.*" It should be noted, however, that he gave the remedy in a kind of electuary in which oil and yolk of egg are among the ingredients, and that he therefore really administered a solution of it, and that his directions for measuring the dose are not at all precise. The necessity for caution in this respect cannot be better pointed than by a reference to the toxicological part of the subject; and I will now proceed to examine this briefly, with a view of ascertaining the smallest dose in which phosphorus is known to have proved fatal.

Three instances are recorded by different writers, in each of which less than one grain has caused death. Chevallier quotes, on the authority of Löbenstein von Löbel, the case of a lunatic in which death followed the ingestion of one-eighth of a grain; but of this note M. Beaumetz remarks that the symptoms neither before nor after death are such as can be considered

(a) "Mémoires de la Société Médicale d'Emulation de Paris," an. vi.

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conclusive evidence of the poisonous properties of phosphorus. Solon Martin(b) relates that a dose of considerably less than one grain given in a case of lead palsy was fatal in two days. The medicine was given in the form of emulsion, and oil was therefore probably used as a solvent. The only remaining instance of a fatal result ensuing on such a small dose as this is quoted from Galtier by Taylor(c); here 0·06 grammes (or about nine-tenths of a grain) were dissolved and taken in divided doses during four days, the largest quantity taken at one time being 0·03 grammes. The patient died three days after the last dose. In this case, too, the drug was given in solution. Of deaths from slightly larger quantities, Orfila(d) records that half a grain, followed in three days by a grain and a half, was fatal to a young man in twelve days; and Christison gives two cases in which a grain and a half and two grains caused death in twelve and eight days respectively. Although it is needless to multiply references in order to prove that phosphorus is an active poison, still it cannot be too widely known that not only may nine-tenths of a grain dissolved in oil and taken in divided doses prove fatal, but that the oily solution is capable of giving rise to the most untoward symptoms, even when exhibited in much smaller quantities than this, and with all ordinary precaution and judgment. In support of this assertion the reader may refer to the *Practitioner* for August, 1873, where Dr. Anstie relates the occurrence of intestinal irritation and hæmaturia following the administration of a few capsules, each containing one-thirtieth of a grain of phosphorus dissolved in oil; and in the same journal(e) I published among other cases one in which six doses of an emulsion of phosphorised oil, each equivalent to one-twelfth of a grain, and taken during twenty-four hours, gave rise to violent vomiting and purging, a most dangerous degree of collapse, and a very long-continued debility and dyspepsia, such as are almost characteristic of the poisonous effect of phosphorus on persons who do not quite succumb to its power. I have also lately had an opportunity of observing the poisonous effects of solid (reduced) phosphorus. In this case the patient took forty-three sixteenths of a grain in the course of six days—one-sixteenth every three hours. She lost the neuralgia, for which the remedy was administered, between the fourth and fifth days of treatment, and appeared to be in every respect improved in health until the evening of the sixth day, when she ate a very hearty supper—the first meal of any consequence which she had made for many days. During that night she was attacked with vomiting and colicky pain, and these symptoms continued more or less for three days, during which the colic was replaced by epigastric and hepatic tenderness. Weakness of the voluntary and involuntary (heart) muscles showed itself on the second day of illness, and jaundice on the fourth day. A small quantity of blood escaped from the rectum on this day, and the vomit was tinged with the same fluid; and she showed a mild form of delirium—perhaps better described as confusion of ideas, since it was of that kind of which the patient is perfectly conscious. On the fifth day she vomited three times only, and the symptom then disappeared. On the sixth day she complained of œsophageal constriction and a præcordial pain which she herself called "heartache." On the seventh day she was extremely nervous; this symptom disappeared during the night, and did not return. On the ninth day she suddenly became completely collapsed without having attempted any exertion which might have overtaxed the enfeebled heart. She was pulseless, and the heart-sounds were all but imperceptible; the surface cold and damp; and the voice inaudible, except at long intervals, when she complained of feeling tired. This condition lasted for two hours, when she recovered herself a little. From this time she began very slowly to recover, and continued to make some progress during ten days. Her condition then became stationary, the symptoms being debility so great that she could not raise herself in bed, and flatulent dyspepsia of an acute kind. Under a diet of lentil meal and one-fiftieth of a grain of phosphorus in glycerine she has now (two months) got almost well. There are many instructive and interesting points about this case upon which I hope to enlarge on another occasion; but the relation of it is briefly anticipated here in order to show that two grains and three-quarters of phosphorus taken medicinally during six days, and in properly divided doses, may cause symptoms of poisoning, which arise without warning and prove all but fatal.

The opinions of all authors are unanimous in respect of the peculiar care with which they regard it necessary to administer phosphorised oil especially. Dr. Hughes Bennett,(f) after an experience of seven cases, which he treated with doses of this solution equivalent to from one-fortieth to one-eighth of a grain each, and given three times a day, thinks that the larger doses soon occasion abdominal derangements; and he concludes that the smaller quantity is the proper dose for administration, although he found that even that could not be long continued without causing the symptoms mentioned; and that more than one-twenty-fourth of a grain should never be given.

Dr. Cotton,(g) having administered from one-twenty-fourth to one-twelfth of a grain in oil in twenty-five cases, remarks that disorder of the stomach and bowels is sometimes caused by it.

Dr. Beaumetz,(h) in speaking of phosphorised oil and a solution in chloroform, recommends that the medication should be intermitted every two or three weeks. He generally commences with one-sixty-sixth of a grain, repeated four or five times daily, which he gradually increases to one-sixth, intermitting the administration for a week on the occurrence of any abdominal derangement, and recommencing it in the initial dose of one milligramme.

In this method Professor Gubler,(i) the latest author on the subject, concurs. This part of the subject—viz., the doses which have hitherto been given without disadvantage to the patient—may, without burdening this communication with references, be briefly summarised in the following manner:—In England (the vehicle used being almost invariably almond oil) the doses recorded vary between Dr. Bennett's one-fortieth, and his one-eighth of a grain; the most usual dose seems to be one-twenty-fourth. On the Continent the larger quantity has not generally been exceeded; but Professor Gubler occasionally admits an advance to ten milligrammes, or about one-sixth of a grain. The practice there—whether in dealing with free phosphorus or with zinc phosphide—is to begin with the equivalent of one milligramme, gradually increased to eight or even ten milligrammes, repeated five times daily. With each of these preparations the intermission of the administration every fourteen or twenty-one days is advised—the medicine to be recommenced in the smallest dose after an interval of a week. In only one instance with which I am acquainted is any considerable disturbance of the digestive system noticed; it occurred in a case of De Mussy's(k) on the second day of the administration of eight milligrammes of zinc phosphide—the equivalent of one milligramme of free phosphorus. Probably the symptoms were due to the emetic action of this compound; it was resumed in a day or two without any further ill result. Lastly, my own experience of nine cases in which I gave an emulsion of phosphorised oil leads me to endorse the above opinions entirely, if they are applied only to the use of this solution.

It may be noticed here that under uncertain circumstances some patients seem to tolerate phosphorus to a very remarkable extent; Mr. Reedale's case(l) illustrates this point. A boy, aged ten years, was treated with phosphorus by a quack. On May 18 he gave the child one-fourth of a grain in a pill two or three times a day. He continued to take this dose until June 5, when, no improvement being observed, a saturated solution of phosphorus in ether was given in doses of ten or fifteen drops three times a day. This quantity is equal to from one-fifth to one-third of a grain. On June 10 this solution was changed for the oily solution, of which he took a dose equivalent to five-sixths of a grain four times a day for three days. On June 13 he was put under Mr. Reedale's care, and he died in forty-eight hours more with coma, convulsions, and a quick, almost imperceptible pulse. It is worthy of remark that, although this child took for twenty-three days from three-fifths to three-fourths of a grain of phosphorus daily, he did not seriously suffer until he received the oily solution, of which five or six doses were sufficient to throw him into a dangerous condition, although the medication was continued to four or five doses further. This case naturally brings the inquiry to the question, Is the activity of free phosphorus (and

(b) "Dictionnaire de Méd. et de Chirurg. Pratique," xii., 767.
(c) Galtier, "Toxicologie," i., 87.
(d) *Ibid.*, i., 55.
(e) *Practitioner*, July, 1873.
(f) *Edinburgh Monthly Review*, 1855.
(g) *Medical Times and Gazette*, vol. ii., 1861, p. 7.
(h) *Bulletin Générale de Thérapeutique*, 1868.
(i) *Ibid.*, 1873.
(k) *Gazette des Hôpitaux*, 1868, Nos. 48 and 50.
(l) *Lancet*, 1844, p. 754.

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therefore ought the dose to be) influenced by the form in which it is presented to the stomach? To answer this it is necessary to inquire somewhat of the changes which it undergoes in the stomach, and of the form in which it manifests its peculiar powers. It will be convenient to take the latter point first.

Many facts may be adduced in support of the opinion that phosphorus acts only in a state of isolation and purity—in the free state. One of the modes of action of phosphorus is by destruction of the red corpuscles of the blood—Lecorché(m), Voit und Bauer(n), Pepper(o)—and since these are the oxygen-carriers, it is probably by taking up that gas that the metalloid commences its operations upon them. To act in this way it must be present in the blood in the free state. If it were already oxidised it could no longer exhibit that affinity for the gas which it satisfies at the expense of the red corpuscles. An analogy which supports this view may be traced in the toxic effects of pyrogallic acid. In the presence of an alkali, this compound has a remarkable affinity for oxygen, and power of absorbing it; and M. Personne(p) has found that animals poisoned with it present precisely the same post-mortem appearances as result from poisoning with phosphorus—viz., solution and deoxygenation of the red corpuscles, with purpuric ecchymoses and fatty degenerations. Again, no compound or salt of phosphorus is known to exhibit the peculiar powers of the free metalloid, with the exception of such as are easily decomposed in the stomach and evolve phosphuretted hydrogen. Zinc phosphide is the only compound of this class with which I am acquainted, although the properties of free phosphorus have been claimed for the hypophosphites of lime and soda. But the absorption of phosphuretted hydrogen into the blood is only one way, and a very certain way, of procuring the effects of free phosphorus; for immediately on entering the circulation the gas decomposes to form water and (theoretically precipitating free phosphorus first) phosphoric acid.—Mialhe(q). Yet another argument of this kind may be deduced from the action of phosphorised oil, which produces symptoms in some respects in excess of those produced by an equal quantity of other solutions or a gaseous compound of phosphorus. This is sufficiently shown above by the extreme caution recommended by all writers in the use of this solution; and I have myself observed untoward effects to follow on its use so constantly that I have been led to believe that phosphorus and olive oil may form a deleterious chemical compound. This idea is negatived by the fact that by properly reducing the temperature all the phosphorus may be crystallised out of an oily solution of it; and it remains only to suppose that oil is a vehicle which will carry phosphorus in the free state further into the recesses of the body than any other. No doubt its combination with oil is admirably adapted to protect it from decomposition and oxidation in the stomach, and, for a time, from oxidation even in the circulation and tissues. The symptoms which follow on its use differ also more in intensity than in kind from those which ensue upon the ingestion of other solutions.

The presence of free phosphorus may be demonstrated in the tissues after death, and occasionally in the excretions during life, in persons who have been subjected to its action. Perhaps the case cited by Leroy may be an example of the former phenomenon. A patient who had taken but one grain of phosphorus, died on the day following the dose; and on dissection the tissues were seen to be luminous, and they even imparted the appearance of luminosity to the hands of Rielle, the dissector. Leroy cites this in proof of the almost infinite divisibility of phosphorus, and the case may possibly be an example of it; but the patient died of malignant fever, and luminosity of the body is not an uncommon result of the rapid molecular disintegration which goes on not only after, but before death from such diseases. Luminosity has, however, undoubtedly been observed as the result of the ingestion of large quantities of phosphorus.(r) The excretions occasionally afford evidence of the presence of the element in a free state. In a case quoted by Taylor,(s) not only was the breath of the subject observed to be mixed with a white vapour (phosphoric acid, and pointing to the presence of free phosphorus in the blood traversing the lungs), but the hands were seen to be luminous in the dark. A case in which the same appearance of phosphoric acid in the breath was observed is reported in the *Glasgow Medical Journal* for May, 1873. Taylor also states that the urine voided during life has been found luminous in certain cases of poisoning with phosphorus, and the same observation has been made with regard to the other excreta. Evidence of the presence of free phosphorus in the organs of animals poisoned with this element may be obtained by analysis. Professor Delarue,(t) on digesting portions of liver with sulphuric acid, has observed little flashes of light in the charred specimen, due to the ignition of minute quantities of phosphorus. S. Passerini,(u) by distilling parts of various organs with water, has obtained the evolution of phosphoric acid fumes from them; and in the dark, luminosity of the vapour was perceived. Herapath's(v) process of analysis depends on the production of phosphuretted hydrogen from the suspected viscera; and this gas could not be obtained but with the assistance of free phosphorus present in them.

(To be continued.)

(m) Lecorché, *Archives de Physiologie*, 1868.
(n) Voit und Bauer, *Neues Repert. für Pharm.*, xx., 340; *Zeitsch. für Biolog.*, vii., 63.
(o) *American Journal of Medical Science*, April, 1869.
(p) *Gazette Médicale de Paris*, 1869.
(q) Mialhe, *Union Médicale*, June, 1868.
(r) Galtier, "Toxicologie," vol. i., p. 184.
(s) "Medical Jurisprudence," p. 192, ed. 1865.

(t) *American Medical Monthly Journal*, September, 1858.
(u) *Medical Times and Gazette*, vol. ii., 1863, p. 287.
(v) *Ibid.*, vol. ii., 1864, p. 339.

ON THE

RELATION OF URIC ACID TO GOUT.(a)

By WILLIAM M. ORD, M.B. Lond., M.R.C.P.,
Assistant-Physician to St. Thomas's Hospital.

SYDENHAM's brief but pithy definition of gout, as having its origin in the impaired concoction of matters both in the juices and parts of the body, is certainly out of harmony with the current ideas of the nature of this malady. Dr. Garrod's published opinions may be taken to be the best expression of these ideas; and it must be confessed no man has a better right to our respect than he, who, detecting uric acid in excess, as urate of soda in the blood, has since, by patient and conscientious observation, put this and similar discoveries beyond doubt. To examine Dr. Garrod's opinions:—In Reynolds's "System of Medicine" three propositions are offered by Dr. Garrod (p. 883): 1st. That to produce this form of articular inflammation the blood must contain urate of soda in excess, and even the phenomena of irregular gout, or gouty manifestations, require the same conditions. 2ndly. That gouty inflammation is invariably accompanied with the deposit of urate of soda in the inflamed tissue. 3rdly. That the amount of deposited urate holds no relation to intensity of inflammation; that in some structures infiltration may give rise to scarcely any inflammation, tending to show that the deposit is rather the cause than the effect of inflammation. In an earlier paper, Dr. Garrod spoke of excess of urate of soda in the blood and joint deposits as pathognomonic, so that gout might be defined from rheumatism as clearly as measles from scarlatina by the rash. The propositions, therefore, mark an advance in speculation; urate of soda rises from a sign to be a *materies morbi*, and its deposit in cartilage or ligaments indicates these as agents in freeing the blood from excess; afterwards, the blood being still impure, other surfaces are selected, so that gout very nearly returns to its derivation—*i.e.*, a dropping (*gutta*) of morbid matter into joints. The cause of excess of urate is held to be partly defective excretion (kidneys), partly undue formation of uric acid in the blood. Dr. Garrod carefully guards against routine practice consequent on the simple acceptance of this idea, pointing out that each case exhibits its peculiarities, and demands, in some respects, separate treatment. This qualification being properly recognised, the conception of the cause of gout suggested in the above propositions is, as Dr. Gairdner always held, insufficient. The author maintains that it is most important to regard gout as a mode of decay, and a gouty man as journeying to the grave through definite regions of textural degeneration. Excess and deposit of uric acid are notable accidents of the way, but in errors of the entire nutritive process must be sought the explanation of that systemic loosening and poisoning to which gout may be reduced. Granted that uric acid with soda is deposited within gouty joints, does the fact necessarily mean that the acid is poured out to free the blood from its presence? The sum of evidence appears against the necessity of such conclusion. Uric acid, a product of disintegration of tissues, and food, is little soluble compared, say, with urea, and therefore the kidneys cannot remove much of it at a time

(a) Abridged from a paper read before the West Kent Medico-Chirurgical Society, February 7, 1873.

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from the blood. Similarly, if uric acid be largely formed within the tissues, the blood cannot take up much of it. In arcus senilis we do not infer the blood to be too full of fat, nor the cornea to be an eliminative organ; on the contrary, we infer degeneration of cornea, with comparatively insoluble deposit of fat within the corneal tissue. Again, cholesterine crystals in old sebaceous cysts, or in advanced atheroma, suggest local degeneration and immobility of resulting substance. Therefore, it is here claimed that urate of soda in parts of the body remote from the centre of circulation, in tissues little vascular and of low vitality, may be taken as a kind of degeneration or want of tissue organisation. Secondly, I would ask, is it necessary to assume that the deposited matter is either the cause or effect of gouty inflammation? As Dr. Garrod remarks, "Gouty deposit does occur in the cartilage of the external ear without any recognised preceding inflammation," and "in joints which have become callous, considerable deposits may occur without the production of much local inflammation." If, however, such deposits are meddled with ever so gently, sharp gouty inflammation always follows. Taken deposits, or gouty constitution, or injury alone, no gouty inflammation follows. After death the great toe joint is constantly found the seat of unsuspected mischief—more or less ulceration (Dr. Garrod). The blood may be full of urate without producing gout, and the great toe may be injured again and again, and yet no gout appears. To show that the great toe is mainly the first joint attacked in primary gout, the author quotes Sir C. Scudamore's table of 516 cases, in which one or both great toes were affected in 341, or about two-thirds; in thirty-one, great toe with other parts of foot; and in only twenty of the whole was the lower extremity wholly exempt. In a word, the lower extremity, which bears the greatest strains in the exertions of daily life, is mainly the site of the first development of gouty inflammation. This holds good especially in hereditary gout; in acquired gout it is otherwise, as that means mostly general degeneration of body following default of particular organs. Those organs are first attacked. So much for primary gout. Further, in our daily experience every fresh attack has mostly an exciting cause—a long walk, a joint-wrench, fall, nervous excitement or anxiety, etc., all disturb the circulation of some part; the temporary congestions of the healthy man become the characteristic inflammations in the gouty. In some cases the quantity of urate of soda seems to bear relation to the inflammation. Extension of gouty inflammation, however, requires not uric acid for its explanation. The author believes it may be propagated from part to part by nerve influence, as in simple inflammation. The direct influence of the nervous system in gout is admitted by all authors in one way or another. In some cases a strong will can fight down the gout; others defy with impunity (for a time) the received laws of diet and regimen. Too much importance is attached to the supposed improvement of general health after an attack of gout. This is to a certain extent true in many early attacks, but recurring inflammations damage tissues and diminish power of recovery. To avert local attacks and check inflammation must be the aim of practice. The old rules of regimen hold good still. As regards remedies, eliminant medicines—and amongst them pure water—hold high value. In addition, all possible means to promote the concoction of healthy tissue—as cod-liver oil, milk, and fatty food, good meat, various tonics, as iron, arsenic, and vegetable bitters. We must try to wash away the offending extractive, not neglecting to repair and refit as perfectly as possible. *Summary.*—1. Gout is a mode of decay of the whole system, marked by deposit of urate of soda in and about joints, and by local inflammation of a particular kind. 2. The deposit of the urate is the result of local or general disintegration, and is not to be regarded as a means of eliminating urate from the blood. 3. The local inflammations do not necessarily depend upon the deposition of urate, and the deposit is not a consequence of inflammation; at the same time it is probable that excess of urate in the blood produces irritation of tissues. 4. The local inflammation is peculiar, in respect of the ease with which it is produced, of the pain by which it is attended; and of the products—which are chemical rather than structural (chemical substances of low molecule, tending to crystallise or to be dissolved, being formed in the part, instead of substances of high molecule, tending to be organised). Interstitial sub-crystalline deposit is common, suppuration rare, in gout. 5. The local inflammations are set going by local exciting causes. 6. The local degenerations and inflammations tend to infect the rest of the system through the blood, and to set up similar actions elsewhere through the nervous action.

REPORTS OF HOSPITAL PRACTICE IN MEDICINE AND SURGERY.

LONDON HOSPITAL.

A SERIES OF CASES ILLUSTRATIVE OF CEREBRAL PATHOLOGY CASES OF INTRACRANIAL TUMOUR.

(Under the care of Dr. HUGHLINGS-JACKSON.)

(*Continued from page 153.*)

Case 12.—*Optic Neuritis of the Left Eye, and Left Hemiplegia from Tumour of the Right Cerebral Hemisphere.*(a)

The history of this case is very important as showing the value of the ophthalmoscope. Without ophthalmoscopic examination I do not see how a correct diagnosis could have been arrived at. Finding optic neuritis, I concluded that there was tumour. I did so notwithstanding that the neuritis was of but one side. I was the more certain of tumour because I had seen a case in essential respects like it. That case is recorded (*Royal London Ophthalmic Hospital Reports*, Nov., 1871) and an account of the microscopical examination of the eyes is there given by Dr. Pagenstecher. Without the important ophthalmoscopical evidence, the general tenor of Case 12 is not very unlike one of softening from thrombosis. The first attack recorded is given in detail in order to show this; the only likely diagnosis of that attack of hemiplegia, coming on as it did in a patient of fifty, is softening from plugging of an atheromatous artery; nay, considering the length of time before the fatal illness, that may have been the pathology of the symptom.

The history of pain in the head was the only symptom, besides the neuritis, to point to tumour. The last attack of hemiplegia, as was the one seven years before, was just like hemiplegia from thrombosis. Unless I had looked into his eyes, I should have made that diagnosis.

John M., aged 57, admitted on the medical side on April 25, 1872.

Statement of Wife, taken by Mr. Louis Mackenzie, May 1.—She never knew him to be laid up with illness until nearly seven years ago, when he was at work (building) on a very hot day, and he had a fit. But for many years before this, his first attack of hemiplegia, he had been subject to a "cramp" or "tingling" or "pins and needles" in his left arm and hand, especially early in the morning. He would get up very early and complain much of this symptom. From the time of this fit he has always had much trouble with his water. He had great pain in making water, but he would be relieved afterwards—small stream and a long time at it. Noting these facts, we now describe the first attack of hemiplegia seven years before the second and fatal one. He was brought home, and when his wife saw him and asked what was the matter she thought he was tipsy, but he stammered a good deal and said he thought he was paralysed. He could not feed himself at tea, which was waiting for him, and though he could walk he was rather weak in his left leg. His arm (left) was the most powerless part, but it was not completely paralysed. He lifted a chair (a light one). Patient, when first taken in the "fit," could not speak at all; he merely made motions with his hand or hands that he wanted help, and when his brother came he could not understand what was the matter with patient. In fourteen days' time he was quite well. In about a week he could speak quite well and read. His sight was never affected at this time.

Had an accident five years ago; lost a good deal of blood. Last winter he began to lose flesh, and get very tired after a day's work, and he would pass his water under him at times. This last symptom became worse, and he was brought here as a patient, and was out-patient for about fourteen days. This was March 3, 1872. A day or two after this his wife noticed that his memory was failing him, and he did not seem to know what day it was, and he expressed the sentiment, "I am going cranky." In a day or so after he was very "dozy," and was sitting by the fire all day. It was a Sunday, and he did not know what day it

(a) For much valuable help in the investigation of this case I am indebted to Mr. Louis Mackenzie, and also to Mr. Wallace Drew.

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was, and he said "I am going off my chump." He would lie down very much all day; he forgot when he came as out-patient to ask for his certificate; he often did not seem to know he had been to the hospital. At this time he complained of great pain in his head; he said he could feel his head swelling up; kept on crying out, "Oh! my head"; complained of a sensation of cold water running down his back; he was delirious, but never sick. He was admitted under one of the surgeons, and remained in the same state until about April 20, when he was found to be paralysed on the left side.

When he came into the hospital it was observed that he talked nonsense at times. Nurse states that the patient passed his water in bed occasionally, from the first day he came into hospital. Catheter and sound passed; nothing abnormal was found. As to the mode of onset of the hemiplegia, the account is not very clear. A patient who was lying opposite says that in the middle of the night he was awakened by a noise, and saw the patient lying with his head on the ground by his locker, and his feet in bed. He said something about having "tried to wake his wife for half an hour"; but as soon as he was helped into bed by the nurse he seemed quite quiet. It is certain, however, that the hemiplegia came on in one night, and that there was no deep loss of consciousness; probably there was no loss of consciousness at all. Hence, as previously remarked, this attack of hemiplegia (like the one the patient had seven years before) was such as often occurs from local softening consequent on arterial thrombosis.

I entered into the symptoms of this case in great detail; but it is only necessary to say that the hemiplegia was of the common form—just that which we see several times every day. There was paresis of the left side of the face and tongue, almost complete paralysis of the left arm, and much weakness of the left leg. He passed water and feces in bed; but such symptoms are, in cases of brain disease, rather signs of general mental failure than of paralysis of the sphincters. The neuritis was of the left side—of the side opposite the tumour, as in the case published by Dr. Pagenstecher (*op. cit.*). It is proper to say that some good observers were of opinion that there were some trifling changes in that eye which I consider to have been normal; but all agree that they were insignificant. Many very good ophthalmoscopists of my acquaintance are unwilling to admit that any optic disc is normal. I saw this man's optic discs for the last time three days before he died.

What interested me more than anything else was the man's mental condition. It was such as would be usually spoken of as one of partial imbecility. That which is so described is often, I am convinced, a defect as special as are defects of speech. He did not often know where he was, mistaking the hospital for some other place; and although his speech was good, he could tell us nothing definite as to his history, his friends, or the place where he lay. To say that he had "loss of memory," leads to the question—memory for what? He had not loss of "memory for words"; he had, I think, loss of power to reproduce images of things. Most of our intellectual operations are carried on in "visual ideas."

Mental defect (other than affection of speech) more often results, I consider, from disease of the right than of the left cerebral hemisphere, and it is, I think, greater when the posterior lobe of that side is the part involved.

He died quietly on June 4—"sleeping away," as the nurse expressed it. The day before he had had slight twitching of the left hand and face for about a quarter of an hour, but this was the only special symptom. He did not get thin; on the contrary, at the time of his death he was a fat man for his age.

Autopsy.—The convolutions of both cerebral hemispheres were flattened, the sulci almost obliterated; the arachnoid was slightly greasy. On slicing the hemispheres on a plane nearly to the upper part of the lateral ventricle, the section on the right was seen to be in the position of the normally white matter, of a faint yellow colour, raised by œdema, and "trembling" like jelly. (Further dissection showed the *left* hemisphere to be quite normal.) In the right hemisphere a tumour was found of about the bulk of four walnuts, but irregularly rounded; it lay in a softened bed—not the softening above described, but in a pulp of brain. The tumour lay chiefly outside the corpus striatum and thalamus; but these bodies were much softened externally, and in part diffluent. On removing the tumour, the softened bed below was seen to be mixed with blood, perhaps in quantity of about three drachms. Extending backwards in the upper part of the right crus cerebri, and in the upper and front part of the pons Varolii was a streaking with blood, but there were no distinct clots. The rest of the encephalon was normal. Examination of the rest of the body presented nothing of importance.

The backs of the eyes were removed, and given to Mr. Nettleship for microscopical examination. It was observed that the sheath of the left optic nerve was, near the eyeball, slightly (but only slightly) distended.

Mr. Nettleship reports on the microscopy of the tumour as follows:—

"It is composed entirely of cells and bloodvessels. (*a*) The cells vary much in form. Perhaps on the whole they approximate more to the oval and oat shape than to any other special forms. Many, however, have very irregular outlines, with angles and processes; the processes are usually short, but now and then of considerable length. They vary much in size, but almost all of them are larger than the cells of an intra-ocular glioma with which I have compared them. The cells are arranged so as to produce an approach to a trabecular structure, with small meshes of very irregular shape and very various dimensions. This trabecular build of the tumour is not equally well seen in all parts. (*b*) The bloodvessels are very numerous, and full of blood. There is also a good deal of dark red-brown pigment in amorphous granules and small angular (? crystalline) fragments scattered among the elements of the tumour."

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Medical Times and Gazette.

SATURDAY, FEBRUARY 28, 1874.

QUACKS AND QUACKERY.

Carlyle has somewhere affirmed that the presence of quackery as an appendage to any profession is indicative of something decidedly wrong in the constitution of the profession itself. To some extent this principle is applicable to the relation between quackery and the legitimate practice of medicine; but, for the greater part, whatever measure of success is found to accompany the nefarious practice of the healing art may be truly said to be due either to weakness of judgment on the part of the misguided public, or to crafty designs, dishonest motives, or at the best misdirected enthusiasm on the part of the practitioner. If Carlyle's observation is applicable to our case, it is only to the extent that up to the present time the honourable members of our profession may have neglected to—

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persistently to recognise in therapeutics the decided action of the imagination, which at all times has been the most potent agent employed by the blue-bill practitioner, the itinerant vermicide, and the omnipresent bone-setter. And even now that the influence of the imagination in the production and modification of physiological acts is approximately understood, it would be rash to prophesy that universal advantage will be taken of the information acquired. Notwithstanding our knowledge that the existence in a patient's mind of the definite impression that a certain physiological act *will* take place is the best security for its actual occurrence,—notwithstanding our knowledge that mental impressions may take the place of peripheral stimuli, and lead to consequent reflex mental, motor, and trophic changes independent of or accessory to the action of drugs,—we feel assured that the majority of the members of the medical profession will always be very economical in the use of an agency which derives its power from a certain element of deception and imposture. Psychical therapeutics will take that place in medicine which the requirements of the art and the integrity of the profession may assign to them; but medical practitioners will never, except in rare and questionable instances, come to regard their influence over the imagination of their patients as the most effectual agent at their command, in the treatment either of functional or organic disease.

Quacks are of as many grades as those which distinguish the ranks of medicine. There is the universal advertising quack, whose medicines cure all diseases, and who requests the colonial editor to add to his lengthy pathological list the names of such maladies as may be prevalent amongst his subscribers. There is the deluded quack, who, by a proportionate increment of enthusiasm, makes up for the utter inertia of his drugs. There are vestiges of the venerable quack of the time of Shakespeare, and of Hogarth, and Addison, striving to derive from his surroundings, after the manner of the Alchemists, a useful amount of personal awe and majesty, who—

> "—— in his needy shop a tortoise hung,
> An alligator stuffed, and other skins
> Of ill-shaped fishes; and about his shelves
> A beggarly account of empty boxes,
> Green earthen pots, bladders, and musty seeds,
> Remnants of packthread, and old cakes of roses
> Were thinly scattered to make up a show."

There is the itinerant vendor of drugs with his stereotyped oration, who never travels from any personal motive, but only for the good of society. There is the literary quack, who, "without either horse or pickle-herring," extends his own reputation by means of concocted testimonials and by the circumstantial description of marvellous instances both of disease and alleviation. As Zachary Pearce says in the *Spectator*:—

"These seem to have derived their custom from an eastern nation whom Herodotus speaks of, among whom it was a law that whenever any cure was performed, both the method of the cure and an account of the distemper should be fixed in some public place; but as customs will corrupt, these our moderns provide themselves of persons to attest the cure before they publish or make an experiment of the prescription. I have heard of a porter who serves as a knight of the post under one of these operators, and though he was never sick in his life, has been cured of all the diseases in the dispensary. These are the men whose sagacity has invented elixirs of all sorts, pills and lozenges, and take it as an affront if you come to them before you are given over by everybody else."

But above all there is the quack who best sustains the name—he who makes an illicit speciality of the treatment of contagious diseases. With respect to his means of sustenance, he resembles the biped from which he derives his expressive title. Nothing is too foul for him. He exists upon the garbage of medical emolument. As his amphibious prototypes swallow eagerly the entrails of their own kind, he lives upon the most degraded elements of vice in human nature, constantly striving to induce a deeper and wider degradation by every influence which can affect the emotions or the passions. Distorted religious sentiments are not too high for him; gross immorality in art or letterpress is not too low as a means of inciting those who come under his influence to an indulgence in the vices which it is his avowed object to warn them against. He lives upon those whose imaginations he has fired by exaggerated statements of the results of their errors; and by acting alternately on their hopes and their fears he clings eagerly to their substance till his importunity has extracted from them their last penny, and then turns them adrift to find gratuitous relief from such functional or organic maladies as his drugs and prognostications may have engendered.

We have serious doubts about the credence that will be extended to us when we state that even qualified members of the medical profession may be found who degrade themselves to the level of such repulsive quackery. It is for the bodies from whom these men receive their qualifications to take notice of their conduct if they would maintain the character of the degrees which they confer. At the same time it would be well if some effectual means could be taken to put a stop to the disgraceful distribution of medical handbills, which, though qualified by a "Provident Dispensary" heading, are only specious manifestations of the same charlatanism. In the absence of any provision for such cases, however, it is consoling to think that all except the utterly illiterate and indigent members of the community recognise that in medical matters the proverb that "Good wine requires no bush" is singularly appropriate.

THE MOVING AND CAMPING OF TROOPS IN TROPICAL REGIONS.

On Monday, the 16th inst., Surgeon-General Maclean, M.D., C.B., Professor of Military Medicine at the Army Medical School, Netley, gave a very interesting, if not entirely novel, lecture at the Royal United Service Institution on the "Sanitary Precautions to be observed in the Moving and Camping of Troops in Tropical Regions." Dr. Maclean commenced by congratulating his hearers on the fact that the old stock and pipe-clay notions with regard to the dress of the British soldier had at length passed away, as instanced by the circumstance of the special uniform issued for the use of the troops taking part in the Ashantee expedition; also upon the adoption of the new valise equipment as a substitute for the old regulation pack and belts, than which nothing of greater comfort and advantage had ever been devised for the marching soldier—an opinion confirmed by the reports of both Prussian and French military authorities.

The hygienic importance of obtaining the best drinking-water possible for the troops on the line of march was next treated of, together with the responsibilities attaching to army medical officers on this point. Dr. Maclean strongly advocates the employment of filters, such as those contrived by Captain Crease, to be mounted on wheels, from which all supplies should be drawn; in addition to which every man on a tropical march should have some sort of pocket-filter in his haversack. From water to spirits was an obvious transition, and here the lecturer dwelt with full force upon the evil effects of alcoholic stimulants obtained by soldiers on the march, everywhere, but more especially in hot countries. In support of this theory he quoted reports from medical officers of the French army in Algeria, who denounced spirit rations as most hurtful; and Dr. Parkes, of Netley, in whose opinion "any amount of alcohol would act injuriously by increasing unnecessarily the action of the heart, which the labour [of marching] alone had sufficiently augmented." Tea or coffee, but especially coffee, was proposed as a substitute for spirits, to be taken hot before starting as an antidote to the griping abdominal pains to which soldiers, especially young ones, are liable in the dark

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chilly hour preceding the dawn, and to invigorate the system so as to enable it to resist miasmatic exhalations, which at that hour are most freely evolved from the soil.

The chief enemies to be guarded against in tropical marches are, Dr. Maclean thinks, malaria, dysentery, sunstroke, cholera, and, in the yellow fever zone, the disease so named. Malaria, a product of organic decomposition in soils, is banished by cultivation. The skill of the chemist has never yet isolated it, and it is the chief factor in the causation of the class of fevers known as intermittent and remittent. Malarious districts having to be traversed should be got through as quickly as possible, night marches being strictly avoided.

Dysentery, says Dr. Maclean, ought to be a rare disease in modern times in well-regulated camps, army surgeons being now so well instructed in the means of its prevention, both in moving and standing camps. Severe sanitary precautions for keeping latrines cleanly and well disinfected must be enforced, and cholera-belts should be worn by all, whilst the men should be encouraged to make early application to the doctor for any irregularity of the bowels, instead of having recourse to stimulants.

Sunstroke is to be combated by loose and light dress, protection to the head, neck, and spine, and also to the abdomen. In Africa, Livingstone and his companions were as anxious to protect this portion of their persons from the heat radiated from the soil as their heads from the direct rays of the sun. Anatomists and physiologists, remembering the position of the great plexus of the sympathetic system of nerves, will understand the *rationale* of this precaution. Overcrowded barracks or tents, we are told, are often quite as fatal as direct exposure to the sun's rays.

Cholera, and the method of treating it on the march, was next commented on, and Dr. Maclean explained that, as Dr. Netten Radcliffe has expressed it, "cholera does not travel, but is carried." In his (Dr. Maclean's) opinion, human locomotion is the means of its extension from one distant place to another, and he cited one or two instances from his own Indian experience in support of the views thus taken. Certain suggestions were also thrown out for the guidance of medical officers who might at any time be in charge of troops approaching or crossing what in India is denominated a "tainted district"—that is to say, a place where cholera is known to have been recently rife.

Yellow fever, and how best to avoid it, was the last topic touched upon by the lecturer, who showed that, whereas cholera was equally destructive at St. Petersburg and Calcutta, yellow fever had never yet established itself in any climate where the average temperature was below 72° Fahr. It might also be classed as a child of dirt, for, in every spot in which it was found, sanitary arrangements, as a rule, were utterly neglected.

Dr. Maclean concluded by observing that, whilst there was much to be thankful for in the progress achieved by preventive medicine at home and abroad, there was much yet remaining to be done before our rulers would be brought to see its importance in relation to the happiness and well-being of the country.

NOTHNAGEL ON THE FUNCTIONS OF THE BRAIN.

Professor Nothnagel, of Freiburg, has published in the last number of Virchow's *Archiv*. a continuation of his researches into the functions of certain parts of the brain, published in a former volume (Band. lvii., s. 184), and we propose here to give an account of the main results arrived at. The author has in this series of experiments, numbering over a hundred, modified his former method of investigation—namely, the injection of a few drops of a concentrated solution of chromic acid into the particular region selected, because so many animals died from escape of the acid into the fourth ventricle.(a) He now simply pricks the brain with an ordinary microscopic needle, in some cases slightly moving the point from side to side, in order to produce a small extravasation of blood and mark the exact seat of the lesion at the autopsy, or to intensify the irritation. Rabbits were the animals always used in these experiments, as Professor Nothnagel considers it best always to use the same species in studying the function of accurately localised portions of the brain. He first describes a remarkable series of "exquisite, convulsive, springing movements" produced by irritating a well-defined spot of the hemispheres. In sixty experiments he succeeded in hitting this spot twenty-three times, while there was either no result or merely a transient and ill-defined one in the others. In the successful cases the animal was seized with convulsive movements of such frightful intensity that Nothnagel believes they cannot be compared with any known phenomenon of experimental nerve-physiology, not even with the general convulsions occurring in injuries to the pons. The animal, either immediately after the prick or at latest one to two minutes afterwards, is impelled either forwards, sideways, or occasionally backwards, in a series of leaps, in which it sometimes is shot up two or three feet into the air, "as if by a spring," and even strikes itself against the wall of the room in which the experiment takes place. In the slighter forms there is only a sort of restlessness, with rapid, irregular hopping movements, which soon pass off. Sometimes there is a convulsive stretching out of the legs as well. These phenomena generally last from half a minute to three minutes, and then the animal becomes quiet, leaving only in some cases a slight deviation of the extremities of the opposite side toward the median line, and a trifling curvature of the spinal column, which have disappeared on the following day. The animals often appear quite healthy a few minutes after the operation. No alteration of sensibility can ever be detected in any part of the body. These phenomena occur equally, whether the corpora quadrigemina are injured or not. The exact spot in the hemisphere (the prick was always made on the left side) which must be pricked to produce them is in the hinder part of its apex (*hinteren Hemisphärenspitze*), and only a one-sided lesion is required. The spot lies over the corpora quadrigemina, which would be reached if the needle were introduced too far. The needle may be pushed in either from above or else from the side, and then directed towards the middle line.

The smallest depth at which a prick produced the peculiar movements was half a millimetre. Nothnagel believes that these phenomena are the result of irritation, but he cannot explain them satisfactorily on any hypothesis, and contents himself with merely describing them.

Experiments made on parts of the hemispheres further backwards or more to the side, so as to irritate the region surrounding the hippocampus major in its lower half—the needle being pushed in from the side—gave absolutely negative results. A number of experiments were further made with a view to determine the function of the hippocampus major, which in rabbits is very large. The needle was introduced in the same way as before—both from above and also from the side,—but no nervous phenomena of any kind were observed; so that this method throws no light on the use of the hippocampus major. One or two points of interest were, however, noted in connexion with it, and especially the great frequency of meningitis; for whereas in experiments on other parts of the brain only one in twenty-five animals died of meningitis, in these two in three were affected. The result was the same at different seasons of the year. In five cases there was no meningitis, but the respiration became very laboured in four, and in the fifth much accelerated; and

(a) Dr. Ferrier has also noticed this. *Vide* "West Riding Reports," 1873, p. 73.

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Nothnagel believes there may be some relation between this phenomenon and the injury to the brain, for in other cases where meningitis occurred—but the puncture was in a different part—nothing of the kind was noted. A few times he found a meningitis on the right side, although the prick had been made on the left.

In conclusion, Nothnagel describes the results of a number of experiments on the optic thalami. The needle was here in most cases pushed in without moving the point, sometimes only superficially into the corpus geniculatum externum or internum (which lie in the rabbit really one behind the other), and sometimes as far as the middle line. Sometimes the thalamus was cut across transversely by an incision from the front (*Frontalschnitt*). Thus the effects of injury to nearly all parts could be examined in different animals. The results arrived at were briefly the following:—If the puncture only entered the superficial layers of the thalamus, scarcely anything abnormal followed; but if it went deeper towards the base, disturbances of movement appeared, consisting of a deviation of the opposite extremities, often only the anterior ones, towards the median line. If the thalamus were transversely divided, the deviation of the forelegs was found to persist a long time; in the case of the prick, it soon passed off. Nothnagel therefore concludes that the paths, whether fibrous or ganglionic, whose destruction produces this phenomenon do not lie in a compact mass, but are scattered through the substance of the thalamus, so that injury to a part of them by the simple puncture is compensated for by the others which remain intact.

Small extravasations produced by pricking the posterior half of the thalamus cause the animals immediately to turn their head to the opposite side. There is strongly marked deviation of both the forelegs—that of the same side outwards, of the opposite side towards the middle line,—and the animals rotate towards the uninjured side. For the more complicated results of injury to this region we must refer our readers to the original paper. There were no definite or constantly recurring disturbances of sensibility to be made out in any of the experiments on the thalamus, and no anæsthesia of the forelegs after it had been transversely divided. Nothnagel's results with regard to the hippocampus major and optic thalamus thus agree in many points with those of Dr. Ferrier on the same parts by the method of electrical irritation, but the latter found no motor disturbances on stimulating the thalamus.

JOHN HUNTER AND LEICESTER-SQUARE.

Thanks to the President of the Royal College of Surgeons, we shall have a statue of John Hunter in Leicester-square. The munificent donor of that enclosure to the public, Mr. Albert Grant, M.P., originally intended to adorn it with four statues of men whose names were more or less associated with the locality. These were—Reynolds and Hogarth, who lived in the square; Sir Isaac Newton, whose house was in St. Martin's-street; and Dr. Johnson, who was a frequent visitor to Sir Joshua Reynolds. Why he was chosen in preference to the other distinguished men who visited the great painter it is difficult to understand. There was Burke, and there was Oliver Goldsmith. The name of the latter is, at all events, associated with the square in a well-known anecdote, told, we think, by Boswell. Poor "Goldie" had on one evening left the house of Sir Joshua to return home to his garret in Fleet-market. On leaving the door his attention was directed to some pantomimic performance, and he stopped. He was surprised to see what a handsome collection was apparently made by the actors. Goldsmith burst into tears, exclaiming, "These illiterate creatures can make money, but in spite of my Latin and Greek I am all but starving!" Johnson cared little for London west of Temple-bar. Why, then, should we put his effigy so far west as Leicester-square? Mr. Curling, the President of the College of Surgeons, noticing the remarkable omission of the name of John Hunter from the list of statues, wrote to Mr. Grant to remind him that the greatest surgeon and one of the greatest natural philosophers had resided for many years in the square, and that this great man was John Hunter. Mr. Grant at once substituted Hunter for Johnson; and thus for the first time we shall have a statue of Hunter in a public position. It seems remarkable that the great part which Hunter played in life, or that he had resided on the spot, is so little known to the general public. Yet here it was that for many years he carried on his labours in the cause of science.

In 1783 Hunter resided in Jermyn-street, in a house which had been formerly occupied by his brother William. As the lease of this house had expired, he determined to remove to more extensive premises. We now quote from Drewry Ottley's "Life of Hunter":—

"He purchased the remainder of the lease of some more extensive premises now occupied by the National Repository of Arts, on the east side of Leicester-square, consisting of a dwelling-house in the square, with a large portion of ground extending to Castle-street, where there was a second smaller dwelling; between the two he determined on building a museum. That this was a very imprudent transaction, in a pecuniary point of view, there can be no doubt. His lease was only for twenty-four years, and the sum he expended on the building was not less than £3000. It seems, however, that his mind had been so harassed with the difficulty of obtaining an eligible site that it was a relief to be able to conclude even such a bargain as this. The new building was to consist of a room above for the reception of his collection, fifty-two feet long by twenty-eight wide, lighted from the top and furnished with a gallery all round. Under this were two apartments, one of which he designed to employ as a lecture-room; the other, for which no particular use was at first allotted, afterwards became the place of meeting for the Lyceum Medicum, a society which Hunter and Fordyce were the means of establishing, and of which they were chosen two of the patrons. All that Hunter could spare from his income was for the next two or three years devoted to carrying the above plan into effect, and he used often to complain to his friends that he was now obliged to spend on bricks and mortar what would have been otherwise expended in enlarging his collection. To the new building the house in Castle-street was subservient, and in the various apartments of it the different departments of human and comparative anatomy were carried on. The house in Leicester-fields was occupied by Hunter and his family."

On the completion of the arrangement of the museum, Hunter opened it for the inspection of his friends and acquaintances during two months in each year—in October to the medical profession, and in May to those noblemen and gentlemen who felt an interest in such subjects. Here, then, was laid the foundation of that magnificent collection in Lincoln's-inn-fields, a monument to the genius and labours of Hunter. Hunter's house was situated where the Alhambra now stands. Hogarth lived three or four doors southward; Sir Joshua Reynolds on the west side of the square, immediately opposite to Hunter—the house which is now occupied by Messrs. Puttick and Simpson, the well-known auctioneers. Sir Isaac Newton's house was four doors from the square, in St. Martin's-street, on the eastern side, and is still standing. The observatory at the top of the house remains intact. The house now forms storerooms for an auctioneer. The celebrated portrait of Hunter by Sir Joshua Reynolds was painted, we believe, in John Hunter's own house. Hunter was a bad sitter, but during the painting he fell into deep thought. Reynolds immediately took advantage of the attitude and expression, and began the face between the legs of his former sketch, and the result was that grand picture which is now in the College of Surgeons. The well-known engraving by Sharpe is considered, even to this day, one of the finest specimens of the art, and fetches high prices in the market. It is unnecessary to go into the biography of Hunter; to his

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quarrel with his brother William; to his disagreements with the Committee of St. George's Hospital; or to his melancholy death in that institution. His dead body was carried thence to Leicester-square. He was buried in a plain oak coffin, with simply his name and age upon it. For nearly sixty years the remains of Hunter lay in the vault under St. Martin's-in-the-fields. His widow was anxious that he should have been entombed in the great Abbey containing monuments to statesmen, soldiers, poets, and historians; but she was left in very straitened circumstances, and the fees which were demanded were beyond her means. At length, Hunter was laid amongst this illustrious throng. Mr. Frank Buckland, the son of a former Dean of Westminster, after considerable labour amongst the coffins under St. Martin's, discovered that of Hunter, and owing to his praiseworthy exertions it was removed to Westminster Abbey, and interred in the presence of many eminent persons. The museum was offered to the nation, but it was two years before the appeal of Hunter's executors was listened to. At the end of that time, chiefly through the exertions of Lord Auckland, a motion was made in the House of Commons that £15,000 be voted to purchase Hunter's Museum; the motion was carried, and the collection was handed over to the Royal College of Surgeons. That museum Hunter estimated he had spent £70,000 in forming. The last connexion of Hunter's name with Leicester-square is Honoratius Leigh Thomas, who, on arriving in London, a raw country lad, called on Hunter, was received with great kindness, and advised as to his future career. Thomas rose to distinction in the profession, he was twice or thrice President of the College, and lived for upwards of half a century in Leicester-place, within sight of Hunter's house.

THE WEEK.

TOPICS OF THE DAY.

Dr. O'Leary's election for the city of Drogheda has given great satisfaction to some of our Irish brethren. He is much respected and beloved by the students of the Ledwich School of Medicine and the pupils of St. Vincent's Hospital, in both of which institutions he holds an appointment. Last week a meeting, consisting of upwards of 200 students, was held in the theatre of the Ledwich-street School, to take into consideration the best means of presenting an address and testimonial to Dr. O'Leary. The chair was taken by Dr. M. A. Ward, who said—"You are all aware that we are assembled here to-day in order to congratulate Dr. O'Leary, one of the lecturers and professors in this School, and Surgeon to St. Vincent's Hospital, on having attained the proud and enviable distinction of being elected to a seat in the great legislative assembly of the empire, and to concert measures for the purpose of presenting him with an address and testimonial. As the idea of calling this meeting together entirely originated with the students, and as it is eminently a students' conference, I shall only detain you with a few observations, first thanking you for asking me to preside. All professions are more or less adequately represented in the Houses of Parliament, except ours; and, when we consider the many and various grievances which our medical brethren in the army, navy, and Poor-law services labour under, I am sure it will be a source of gratification to each of us when we see a medical man returned to Parliament. Dr. O'Leary has laboured among you for years, and is known to you all as a most popular and attractive lecturer, and I am confident that when he enters the House of Commons he will uphold the interests of his profession, and, taking his stand as an independent member on the broad platform of justice, will endeavour to redress the wrongs of our brethren, no matter from what quarter they may emanate—for medical men of all shades of politics can happily unite in a common effort to advance the interests and status of our much neglected profession." A committee having been nominated, the meeting adjourned.

It will be remembered that Dr. Alexander Charles Macleod, a Surgeon-Major in the Madras Army, was charged at Carlisle, and committed for trial, with the manslaughter of his wife, Annie Macleod, by administering to her such doses of morphia that she died from the effects of it on October 15 last. The case came on for trial at the Cumberland Assizes last week. It appeared that the prisoner had administered sixteen grains of hydrochlorate of morphia in the space of three hours and a half. Mrs. Macleod had been sleepless for some days, and her husband administered at first one grain, and repeated "unknown doses" at very short intervals. Death was the result. Medical evidence as to the doses of morphia and its different effects on different people was given. The medical witnesses considered the doses altogether too large; but one of the witnesses on cross-examination said that he had heard of as much as forty grains of morphia being given in a day with impunity, and had heard of a case in which a patient took twenty-two grains of acetate of morphia. The learned judge, in summing up, said the charge was one of manslaughter. The law was this:—Whether a man be a medical man or not, if he dealt with dangerous medicines, he was bound to use them with proper skill, and was bound to bring proper care and employ proper caution, so that persons should not be endangered by want of skill on his part, or want of caution or care in dealing with those deadly ingredients. Whether it be deadly weapons or drugs, the law was the same, and it made no difference whether a medical man was dealing with a patient, or, as a volunteer, dealing with a friend or with his wife. The jury might be enlightened by looking at the relations between the parties; and he was by no means prepared to say that in judging of the evidence it would not enlighten them very much, and enable them to appreciate the evidence on the main point whether the man did not do his best—not in the sense of doing a bad best, but doing a good best, he being a medical man likely to know whether a drug was likely to be dangerous in the quantity administered or innocuous. There was ample evidence that the death of the deceased was caused by morphia. There was great difference of opinion as to the quantity of the drug which could be administered safely; but if the jury were satisfied that the death was caused by morphia, then if it was administered without proper care, without proper skill and knowledge of morphia, without proper caution, whether in the weighing of the drug or any other way, that was clear negligence—he would not use the term "gross negligence," because it was liable to misinterpretation,—and he was guilty of manslaughter. But if the drug was administered without want of skill, and intending to do for the best, doing nothing a skilful man might not do—if the jury thought it merely some sort of error of judgment which anybody might have committed,—the prisoner was not guilty, and the jury must give him a verdict of acquittal, as they must also do if they had any reasonable doubt. The jury returned a verdict of "Not guilty."

It is high time that it should be decided whether the Apothecaries' Act was repealed by the Medical Act of 1858. Great uncertainty at present exists on the subject, and the decisions of county court judges are conflicting. The following case throws no light on the subject. It is curious to hear a lawyer's definition of an apothecary. At the Sheffield County Court, on Thursday, Mr. T. Ellison gave his decision in a case recently heard. The action was brought by a surgeon to recover fees as an apothecary. The judge now stated that he did not propose to grant a case, for the reason that the action was undefended, and he could not think of sending up a case unless both sides

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were first argued. The point in dispute was whether a surgeon or a licentiate of the College of Physicians was entitled to charge as an apothecary, he not being a member of the Apothecaries' Hall. He should give a verdict for the amount claimed, because the action was undefended; but in his opinion a person holding qualifications such as those held by plaintiff was not entitled to charge as an apothecary. A licentiate of the College of Surgeons was a member of an honourable profession, but a person who compounded drugs as an apothecary was a member of a trade.

The Marine Department of the Board of Trade has published copies of correspondence on the medical inspection of seamen between that Department and the British Consul at Callao. The Consul states that the practice of shipping unhealthy men for long voyages appears to be on the increase, and directs the attention of Mr. Plimsoll and the Royal Commission on unseaworthy ships to the fact that unless vessels are manned by sound and seaworthy crews, no amount of care as to the condition of the inanimate belongings will, in any special degree, insure safety afloat.

The report of the Committee of the Caterham Asylum states that during the past five weeks there had been fifty-six patients admitted, of whom twenty-seven had died and six had been discharged; leaving 1803 under treatment, of whom 772 were males and 1031 females. The report from the Homerton Asylum states that seventy-eight patients had been admitted to the Fever Asylum, and fifteen patients to the Small-pox Asylum since the last report; that sixty-nine had been discharged from both asylums, and that eleven had died in the Fever Asylum and none in the Small-pox Asylum.

Mr. George Field, M.R.C.S., has been appointed Aural Surgeon to St. Mary's Hospital.

THE EXPEDITION AGAINST COOMASSIE.

THERE is now no longer any doubt as to the termination of hostilities with the Ashantees. The war is at an end; but the losses are not light.

Whether the results achieved will be worth the expenditure of life and money sacrificed to obtain them, must be left to a future time to determine. One fact the present campaign has conclusively established, and that is the possibility of sending British troops to fight in any part of the known world without incurring exceptionally heavy loss from climate, if—as in this case—the medical department is allowed to make its own preparations and provisions. It would be difficult to point out a spot in *any* country more deadly to Europeans than the West Coast of Africa, most especially that portion which lies between the coast and the River Prah; and this can be readily understood when it is remembered that even to the natives themselves it proves deadly. Of the Ashantee force which invaded the Protectorate at the commencement of the present troubles it is reported that not one-half recrossed the Prah. Fever, dysentery, and small-pox played havoc amongst them, aggravated by exposure to the rains; and it is said that future invasions of our territory would have been rare, even had we not seen fit to assert ourselves, so terrible had been the loss amongst the leading captains of King Koffee's army. It will not, therefore, be surprising to hear that the latest accounts from the Coast speak of much sickness amongst the troops scattered along the route leading to Coomassie. One wing of the Rifles had seventy-seven men down, and both the colonel and major commanding; no deaths, however, were reported. The 42nd Highlanders have also suffered severely from sickness, and it was no doubt owing to this reduction of the fighting strength of the expeditionary column that one wing of the 23rd Regiment was disembarked with orders to proceed at once to the front.

Of the twenty-eight officers who accompanied Sir Garnet Wolseley in the *Ambriz*, five are dead and four invalided home, whilst several of them, including the Commander-in-Chief himself, have at different times been prostrated with fever. The great fall in the temperature at night, or, more correctly speaking, towards the early morning, is a fruitful source of sickness. On retiring, the heat is so intense as scarcely to admit of any covering, and the sleeper wakes the next morning with a shiver of genuine cold induced by his exposed condition.

No complaints are reported as to the transit arrangements for forwarding the sick to Cape Coast Castle, and the arrangements as regards the *Victor Emmanuel* seem to work equally smoothly. The *Himalaya*, with thirteen invalid officers and 157 men for the *Simoom*, had reached St. Vincent, and was followed by the *Thames*, bringing seventy-nine sick officers and men. All these invalids are stated to be doing well—indeed, except in some few instances where the patients are thoroughly prostrated with the Coast fever, they begin to rally the moment that the pestiferous shore is left behind, and the sea-voyage to Cape de Verde suffices to transfer them to the depôt-ship *Simoom* in a very advanced state of convalescence.

The action taken by the Portuguese Government during the present war has been much commented upon. The refusal to allow the establishment of a sanatorium at Madeira might to some extent have been justified by the knowledge of previous epidemics imported into the island; but the strictness of the quarantine imposed upon the *Simoom* and her tender, the *Adela*, at the little island of St. Vincent, is perfectly unjustifiable. The population is principally composed of negroes, with but few whites; yet, in defiance of an order of the Portuguese Government of January 20 last, by which all vessels direct from Cape Coast Castle were to be granted pratique with a clean bill of health for England, the vessels are detained in quarantine. Supplies of fresh meat, milk, eggs, etc., are brought alongside in lighters; the negro boatmen immediately put off in small boats, and wait for the lighters, which, after being unloaded by the ships' companies, are turned adrift in the bay.

One wing of the 23rd Regiment is, perhaps, by this time actually on its way back to England, and we may be sure that the greatest expedition will be observed in bringing home the rest of the troops as fast as they reach Cape Coast Castle from the front.

Since writing the above, startling intelligence has come to hand. The Ashantees elected to fight at the last moment, having trusted to put Sir Garnet off his guard by a pretended submission. Coomassie itself has been taken after five days' hard fighting. King Koffee has fled, but is willing to sign a treaty of peace. Our losses are stated to be under three hundred men of the white force, although the Houssas and other native allies have also suffered. The foregoing information has come from Sir Garnet Wolseley himself, dated the 5th inst.; and the troops were at that date about to commence the return journey to Cape Coast Castle.

LETTER FROM THE GOLD COAST.

WE have been kindly favoured with a copy of the following interesting letter from the seat of war, containing information of the latest date:—

"H.M.S. *Victor Emmanuel*, Cape Coast Castle, Jan. 27.

"The plot has thickened considerably since my last. Our hands are now full to overflowing with sick. Fifty sail this evening in the *Thames*, which takes them to the *Simoom* at St. Vincent, where they catch the mails for Southampton. We have still sixty-seven sick and eighteen convalescent on board, and over twenty are expected this evening from the front. Although we had 142 beds in the hospital deck, we are crowded with 120 men. Remittent fever uncomplicated by anything except excessive prostration is the prevailing type of disease. Fortunately dysentery is comparatively rare so far. I hear the 42nd arrived at Prahsu in great form, and I believe all the others

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who have crossed the river are in good form. The ten days' delay on account of failure of transport was what knocked them up. The 23rd on board the *Tamar* here are suffering greatly. All seem tending to scurvy, but most, if not all, our admissions have been from the one wing of the regiment which was on shore from the 5th to the 12th instant; only 200 of them again disembarked on the 23rd instant, and the remainder are, at the recommendation of the medical authorities, to go for a trip to St. Helena and back in the *Himalaya*. The British soldier does not take kindly to the so-called fresh meat in tins, and consequently starves himself; hence the signs of scurvy amongst the 23rd. If they ate all they got put before them, things would be better with them. No doubt disappointment at not having been allowed to go to the front may have had something to do with their depressed condition. Things looked like fighting on the 23rd; but on the 24th, peace. The *Sarmatian* ss. left at an hour's notice with dispatches on Saturday evening (24th), the contents of which you will know before us; I presume it is some loud talk to meet Parliament with. Had we had warning an hour earlier, we could have filled her with invalids and had plenty left to fill the *Thames* with. It is generally supposed we shall have another month of it; by that time we shall have had more than enough. With all our preparations, I believe the sickness will be too much for our medical arrangements, handsome as they appeared, If cases do as well with us here as they have done, I do not think we shall have a great mortality; but I fear as we get crowded symptoms will not answer the helm so well. Our first death occurred this morning, in the case of Captain Blake, R.N., of the *Druid*, who was in command of the Naval Brigade. He only arrived here from the front the evening before last, but was so prostrated with fever that he never rallied. A partial post-mortem examination discovered nothing except a bullet lodged behind the origin of the aorta. He was wounded in New Zealand in 1868, but suffered nothing, and it was supposed at the time that the bullet had not lodged. However, it turned up to-day. A large proportion of officers are suffering. We have been obliged to put them in cots intended for men here, our six cabins being nowhere amongst so many. On crossing the Prah, on the 19th, the Rifle Brigade left sixty-nine sick, and the Naval Brigade thirty-seven. You will have read of the death of Captain Huyshe, Rifle Brigade, from dysentery. We had just time to send off the Hon. Lieutenant Maxwell, Rifle Brigade, in the *Sarmatian* to Gibraltar, which will suit him better than England (fever and pleuritic effusion). Surgeon Ley, of the African Service, is still with us, having made a wonderfully good recovery from dysentery and starvation. Captain Healy, Assistant-Controller, came on board yesterday, down with fever. Fever everywhere is the order of the day, and few manage to struggle on long after the first attack. I have been hard at work all day, and still go on, having to go on shore to bring off our daily load of sick. Fortunately there is no difficulty in landing, although the surf-boats do tumble about a bit. Our new surf-boats, specially constructed for sick, were not a success—they were too heavy to be convenient,—and the old ones answer as well so far as comfort is concerned. We have had a few cases of ague and diarrhœa on board. "J. F. B."

HEADS OF MR. DE MORGAN'S THESIS ON CANCER.

In the forthcoming discussion on Cancer at the Pathological Society, the question proposed for discussion is "The Relations of Cancer to the Organism generally, and to other Morbid Growths."

The histology of the disease will be only considered in so far as it aids the purpose of definition.

The treatment of the disease will not be entered upon unless for the purpose of illustration.

The opinions generally held on the nature of cancer will be stated—viz., that it is a blood disease; that it is a so-called constitutional disease; that it is a local disease; that it is a combination of local and blood disease; that it is a combination of local and constitutional disease.

The view proposed to be maintained is that the disease, while presenting certain special characters, does not differ essentially in its mode of origin from many or most other morbid growths.

That there is no evidence of the disease being caused by, or dependent on, a special condition of either the fluid or solid portions of the blood.

That while the actual growth is local in its origin, there may be, and possibly always is, an antecedent of the part or of the system which favours its production.

That possibly the germs of the disease may be present from the earliest period of development.

That before a tumour is formed we have no reason to suspect or anticipate the occurrence of the disease, unless, as at times is the case, some local condition be present, which we recognise as often preceding the development of cancer.

That when a tumour is formed we can explain its spread and recurrence without reference to an antecedent diseased condition of either the fluids or solids of the body.

That the structure of cancer specially favours this recurrence; but that most morbid growths show more or less of the same tendency, and some to as great or greater extent than so-called cancer.

That if a special state of the blood be a factor in the formation of cancer, we must also believe it to be so in most or all tumours.

That development of local disease, determined by an antecedent condition of the system, is seen in the simplest forms of tumour—as warts, for example,—and may be merely in obedience to the same law which governs the bodily and mental configuration of the individual.

That the fact of retrogression of cancer, while it gives a hope that in discovering its cause we may find a remedy for the disease, does not prove a special blood origin of the disease any more than would a local degeneration of a natural tissue. This is borne out by the fact sometimes seen of retrogression of cancer growth in one part, while in other parts active growth goes on.

POOR-LAW MEDICAL OFFICERS' ASSOCIATION.

A COUNCIL meeting was held on Thursday, February 19, at 33, Dean-street, Soho; Dr. Rogers occupied the chair. The meeting was convened for the purpose of deciding when and where the annual general meeting should take place, and of determining what should be the immediate future action of the Association; when it was resolved—"That seeing that many of the influential supporters of the present Government are committed to the policy of dealing with the question of local taxation, with the view to its more equitable incidence, and this Council holding the opinion that the maintenance of the health of the destitute poor is a question in which the whole community is interested, it is advisable that the influence of the Association, in the press and in Parliament, should be directed to securing that the salaries of the medical officers should in future be paid wholly from the Consolidated Fund instead of partially as at present." It was also resolved—"That, as it is desirable that all the medicines and appliances prescribed for the sick poor should be provided by the local authorities, and in places sufficiently populous that qualified dispensers should be appointed, every effort be made that the dispensary clauses of Mr. Hardy's Metropolitan Poor Act, 1867, should be extended to the rural districts." It was further resolved—"That a determined attempt should be made so to modify the Medical Officers' Superannuation Act that hereafter it should be compulsory on the authorities to grant such superannuation after a defined period of service." In the course of the discussion which took place the opinion was expressed that were the Association to succeed in securing the entire payment of salaries from the Consolidated Fund, all the various grievances under which the the Poor-law medical officers have so long laboured would speedily be removed; and that a great step towards the successful realisation of that object would be achieved could it be shown to the Local Government Board and to Parliament that the Service was united in demanding this just and needful requirement. It

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was also decided to convene a general meeting so soon as the House of Commons had settled down to business, the day and hour for holding which would be announced by circular notice to members, and to the profession generally through the medical journals.

DUBLIN CORPORATION WATERWORKS.

We understand that, as we are going to press, a very important inquiry in connexion with these works is proceeding before an Inspector of the Local Government Board, Ireland. As this is, we believe, the first inquiry under the "Pollution of Rivers" Act which has ever been held in Ireland, unusual interest attaches to the proceedings, a full account of which we hope to lay before our readers next week. It appears that among the numerous hill-streams which collect the water of the Vartry catchment basin, and conduct it to the magnificent reservoir constructed some nine years ago by the corporation of Dublin at a distance of twenty-seven miles from the metropolis, are two small rivulets which pass through the village of Roundwood. Into these the drainage of numerous farmyards and of a population of 250 persons flows. The Corporation of Dublin long since intercepted these polluted streams, and conducted the fouled water through a water-channel, made at considerable expense, a distance of nearly two miles—namely, from the head of the reservoir to below the embankment. But the rivulets in question form a by no means despicable part of the supply of the catchment basin, and it is estimated that 750,000 gallons of water per diem are lost to the Corporation by the polluting of them by the sewage of Roundwood. This represents a money loss of between £3000 and £4000 a year. The inquiry is undertaken by the Local Government Board at the suit of the Waterworks Committee of the Corporation, who maintain that the Poor-law Guardians of the Rathdrum Union, as the proper local sanitary authorities, are bound to prevent the pollution of the streams in question at their own expense.

THE DUTCH EXPEDITION AGAINST ATCHIN.

Private advices of the date of January 13 inform us that the Missigit, the minor fortress of the Atchinese, was taken on January 6, with less than twenty of the Dutch killed and nearly 200 wounded. A week later the Dutch had secured positions on two sides of the Kraton, the great fortress. The operations are carried on in an unwholesome swamp, amid cocoanut groves, rice fields, and jungle, with mud up to the knees after a little rain; stinks abundant; sutlers none. Cholera is still prevalent, but not so bad as it has been. Deaths from two to twelve daily. About 1000 persons have died of it, mostly convicts who are employed about the camp. The report is, that the Atchinese inside the Kraton are suffering from the disease, and that an ally of theirs, the Rajah of Pedir, has marched off with his men in consequence, and that several villages have gone over to the Dutch. The Atchinese are said to be great savages, mutilating the living and dead that fall into their hands, and murdering messengers. The Geneva Convention forms no part of their system.

UNCERTAIN PAYMENT OF A PUBLIC ANALYST.

The Sanitary Committee of St. Pancras have recommended the Vestry to pay Dr. Stevenson for his services as public analyst, at the rate of half a guinea each analysis, provided the total sum does not exceed £200 in any year.

ANNIVERSARY OF THE BIRTH OF ROKITANSKY.

On the 18th inst. the Imperial Academy of Science, Vienna, celebrated the seventieth anniversary of the birth of Rokitansky. Deputations and addresses also arrived from most of the Austrian and German universities, and congratulations were received from the Pathological Society of London.

SIR GEORGE BURROWS, BART.

The profession will have received with special satisfaction the announcement that her Majesty has been pleased to confer a baronetcy on the President of the Royal College of Physicians. The high regard in which Dr. Burrows is held, and the eminent services he has rendered to the public and the profession, have long marked him out as particularly worthy of such a distinction. The late Prime Minister could not have signalised his retirement from office by any act more grateful to the profession at large than is his having reminded her Majesty of Dr. Burrows' claims to this mark of her high approbation and regard.

A ROYAL RECOGNITION OF MEDICAL SERVICES.

A contemporary states that Dr. W. Campbell, the Surgeon to her Majesty's Consulate-General in Siam, has been the recipient of a munificent present from the King of Siam, in the shape of a superb gold salver, as an acknowledgment of his professional services. The salver bears in Siamese and English the following inscription:—"Presented by his Majesty Somdet Prabat Para Mandr Chulalonkom, King of Siam, to William Campbell, M.D., Fellow of the Royal College of Surgeons of Edinburgh, as a token of his Majesty's esteem and gratitude for medical services rendered. 1873."

SANITARY STATE OF WAKEFIELD.

Dr. Wade, Medical Officer of Health for Wakefield, in his report to the Town Council on the sanitary condition of the borough during the year 1873, states that the total numbers of deaths were 714, or an average of 25·052 per 1000. Of these no less than 327, or 47 per cent., have been of persons under the age of fourteen; 114 of the deaths were of the zymotic or preventable class. He adds that—"Wakefield is placed with every natural advantage sanitarily, but the fact that although we have had no serious epidemic in the borough during the year 1873, we have had 114 deaths from preventable diseases, shows plainly that interference is loudly called for in the removal of causes of disease."

THE NURSING AT GLASGOW ROYAL INFIRMARY.

The managers of the Glasgow Royal Infirmary have under consideration certain propositions with a view to increase the efficiency of the nursing department of the Infirmary. From the reports that reach us it is certainly time that some improvements in the nursing arrangements were effected. Hitherto no provision has been made for the training of the nurses, uninstructed women being sent into the wards to nurse the sick, in some cases so ignorant of their duties that they are unable to apply a fomentation or even make a poultice. This state of things is far from creditable to such an important institution as the Glasgow Infirmary, and it is to be hoped that the managers will appoint a matron and an efficient staff of trained nurses.

DUBLIN CHEMICAL AND PHILOSOPHICAL CLUB.

The annual *conversazione* of this Society took place on Tuesday evening, February 24, at the Queen's Institute, Molesworth-street, Dublin. A very large number of ladies and gentlemen attended on the occasion. The exhibits of chemical or medical interest included the showing of absorption spectra, by Mr. R. Moss; experiments on dissociation, by Mr. Tichborne; experiments illustrative of gas diffusion, and a new specific gravity balance, by Dr. Emerson Reynolds; an improved spirometer, a new sphygmograph, and diagrams illustrative of the spread of zymotic disease, by Dr. Grimshaw; diatoms arranged in figures and microphotographs, by Dr. Bookey; an electrical rain-gauge, and liquefaction of ice by pressure,

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by Mr. Yeates; deposition of silver by aldehyd, by Mr. Tichborne; and microscopic illustrations of the circulation of the blood, by Mr. Porte.

ROYAL HUMANE SOCIETY.

In the month of April next, one hundred years will have elapsed since the foundation of the Royal Humane Society, and the committee have decided on holding a centenary festival, at which his Royal Highness the Duke of Edinburgh has expressed his intention of presiding, to celebrate the great success which has resulted from its exertions to preserve life, and to improve and circulate all over the world the simplest and most scientific modes of treatment in cases of suspended animation. Due notice will be given of the day fixed for the festival as soon as possible after the return of his Royal Highness from Russia.

ADELAIDE HOSPITAL, DUBLIN.

On Saturday, February 21, the students of this Hospital—past and present—made a presentation to Albert J. Walsh, M.D., Senior Surgeon to the institution, on the occasion of his marriage. Mr. B. Wills Richardson presided, and amongst the visitors present were the President of the College of Physicians and the members of the hospital staff. Mr. T. N. Hamilton, Hon. Sec., read the address, after which Dr. Bluett, in the name of the committee and subscribers, formally presented Dr. Walsh with a handsome claret-jug and cup, both of solid silver.

CENTRAL CRIMINAL LUNATIC ASYLUM, DUNDRUM, CO. DUBLIN.

Four months ago the Visiting Physicianship to this institution became vacant by the resignation of Dr. Robert Law, through ill-health. It was rumoured that the Government intended to abolish the appointment; but, after being in abeyance for four months, it has been given, on the eve of the dissolution of the late Ministry, to Mr. John Hughes, Physician to the Mater Misericordiæ Hospital, and Medical Officer to the Richmond Lunatic Asylum.

OPENING OF THE NEW DENTAL HOSPITAL.

The Managing Committee of the Dental Hospital, in conjunction with the Odontological Society, intend celebrating the opening of their new building in Leicester-square by a *conversazione* on the evening of Monday next, March 2, to which the friends of the Hospital and Society are invited. The Society meets at 8 p.m., when an address will be delivered by the President, Mr. Sercombe.

THE WEBB FUND.

The following contributions have been received by Mr. Augustus Churchill, the Treasurer, to the 25th inst.:—

	£	s.	d.
Dr. Peter Hood	5	5	0
Mr. T. R. Wheeler ...	3	3	0
Mr. Copland	1	1	0
Mr. Hinton	1	1	0
Mr. W. Martin	1	1	0
Mr. R. Quain	5	5	0
Dr. Burder	2	0	0
A Widow's Mite	5	0	0
Messrs. Savory and Moore	5	5	0
Dr. George Johnson ...	2	2	0
Dr. Headlam Greenhow ...	2	2	0
Mr. Howard Marsh ...	2	2	0
Mr. Maunder	5	5	0
Mr. H. Morris	1	1	0
Mr. W. Harvey	1	1	0
Mr. Durham	10	10	0
Mrs. Wing	10	0	0
A Friend	6	0	0
Inspector-General Parratt	2	2	0
S. L.	3	3	0
Mr. T. H. Clarke	2	2	0
Mr. J. Scovell Adams ...	5	5	0
Mr. T. J. Hodgson ...	3	3	0
Mr. W. Hancock	5	5	0
Dr. Parratt	1	1	0
Mr. H. Bullock	2	2	0
Dr. Robertson	2	2	0
	95	9	0
Amount previously acknowledged ...	1201	6	6
Total	£1296	15	6

The deaths of 1616 persons were registered in the metropolis last week, being thirty-two below the average. The deaths included fifty-one from measles.

NOTES ON FOREIGN HOSPITALS AND SCHOOLS OF MEDICINE.

III.—GREIFSWALD.

Part 1.—The University.

The celebrated work on medicine by the late Professor Niemeyer has been so generally read in this country, especially by the younger members of the profession, that the clinic of Greifswald has become as familiar to many of us as those of the larger universities of Germany. "In the medical clinic at Greifswald," "When I was physician to the hospital at Greifswald," and other similar expressions are constantly meeting the reader of Niemeyer in his graphic descriptions of disease; and we dare say that many of us received our introduction to this considerable German university by such casual references to its hospital. At the present moment most foreign work of real practical value is immediately republished in this country in the form of translation or abstract, and the English profession are steadily becoming better acquainted with the names of their foreign brethren, and so with the universities and towns where they live and practise. We doubt not that in this way many of our readers are familiar with the names of Hüter, Moaler, and Landois, and know that they are professors at Greifswald of surgery, medicine, and physiology respectively. We will not, however, venture to inquire how many of us know anything of Greifswald itself, or have even an idea of its situation beyond the vague notion that it is a small university town in the north of Germany. Let us at once state that Greifswald is a town of nearly 20,000 inhabitants in the extreme west of the Prussian province of Pomerania, close to the Baltic coast, and as nearly as possible due north from Berlin, from which it is about 130 miles distant. At first it might be imagined that Greifswald is too far north and "out of the way" to be much frequented by travellers. Yet such is not the case. The highway, if we may use the expression, from Berlin and central Europe to Sweden, Norway, and Copenhagen, passes Greifswald, reaching the Prussian coast at Stralsund, which is but twenty miles distant; so that a tourist *en route* from Berlin to Scandinavia, or *vice versâ*, may break his journey at Greifswald—very pleasantly, let as add, especially should he happen to belong to our profession. The town is also a station on the route to the island of Rügen. This very fashionable health-resort and holiday-resort of Northern Germany, with so much to interest in the way of natural scenery and archæological association, lies across the bay of Greifswald, and may be reached in summer by a regular line of steamers in connexion with the town. For several reasons, therefore, Greifswald is not such a remote place after all. It is very pleasantly situated—as pleasantly, indeed, as is well possible on the monotonous plains of Pomerania. The shore of the Baltic can just be discerned in the distance; and the river Ryck, on which Greifswald is said to be built, and which is little better than a dirty canal—as sluggish and foul as other North German streams—is fortunately soon lost to view on the dead flat landscape. The town is surrounded by an agricultural country, apparently highly cultivated and productive, and by many large forests which certainly look black and gloomy enough to have been once upon a time the haunt of the griffin from which Greifswald doubtless derived its name.

Once entered, Greifswald is an exceedingly pleasant town. Much of it is old and interesting, especially the gabled houses, which are to be seen here in perfection. The new streets are handsome and tasteful; and the whole place from one end to the other is remarkably clean for a Continental town. The street sewers are open, of course, as in Berlin, but they are less deep and dangerous, and ever so much less offensive to the eye and nose. The inhabitants, who are engaged partly in manufactures and partly in the coasting trade, are, as a rule, well-dressed, respectable, and apparently in easy circumstances; and a peculiar air of quiet comfort pervades the whole place. Greifswald is a very good example of the small university town so common in Germany, where men of the highest attainments and reputation are found quietly spending the active and useful part of their lives, working hard in the cause of science without fear of distraction by the laborious cares and pleasures of large cities. If we turn for a moment to England and its

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most frequented medical schools, the contrast is indeed extraordinary. And we do not hesitate to say that the difference is no less between the amount of sound scientific work which has been accomplished in the two countries during the last twenty years—medicine and surgery perhaps alone excepted. Will the day ever come when a group of buildings dedicated to the medical sciences, such as those which we shall immediately describe at Greifswald, will be found at least in every English town which is possessed of a medical school?

At Greifswald, as in so many other German towns, the buildings which go by the name of the University are at some distance from those devoted to scientific medicine. It is with the latter that we are presently concerned, and our notice of the former will be brief. The University is a plain-looking house of some size, standing in a quiet quarter of the town, and presenting nothing which need be mentioned here, if we except a very handsome monument in front, erected some years ago in commemoration of its 400th anniversary. The institution dates as far back as 1456, and is very flourishing in its old age. The medical faculty of Greifswald began, we believe, to assume its present respectable position among others in Germany some fifteen or eighteen years ago, when the country was opened up by the railway, and when two of its most famous professors—Niemeyer and Bardeleben—gained for it a reputation as a school of clinical medicine and surgery. Niemeyer was called to Greifswald in the summer of 1855, and remained in it until his appointment at Tübingen in 1860, working with extraordinary industry and zeal in the hospital and lunatic asylum. He found the clinic in a miserable condition, but, with the hearty co-operation of Bardeleben in the surgical department, Niemeyer had the satisfaction of organising both the clinics and the pathological institute, and of seeing a great and rapid increase in the size of the medical faculty.

The number of students attending the University is at present about 500, of whom 300 are medical. Nearly a half of the men come from Pomerania; the rest are mainly drawn from Silesia, Posen, the provinces of Prussia and Brandenburg, and even Westphalia and the Rhenish provinces. We have already accounted for the popularity of the University of Greifswald by the fame of its teachers, but it has another attraction to students in the shape of a large number of free scholarships (*Stipendien*), for which it is famous throughout the whole of Germany. There are nearly forty of these in all. The local rival of Greifswald is the University of Rostock, which lies about fifty miles to the west in Mecklenburg-Schwerin; but the Greifswalders say that, for the several reasons which we have indicated above, they are able to boast of having about a third more students than their neighbours.

The medical curriculum at the University of Greifswald does not differ in any essential respect from that which is adopted throughout Germany generally. We have already given a rough sketch of this in our notes on the University of Kiel (*Medical Times and Gazette*, January 3, page 18), and we will not repeat it in this place. The medical schools in Germany differ from each other, as far as arrangements go, chiefly in respect of the provisions for teaching the specialties; and it will be afterwards seen what the advantages of Greifswald are in this way.

The buildings devoted to medicine and the allied sciences at Greifswald have been built in a group so as to occupy quite a large portion of the north-eastern corner of the town. Leaving the University, and walking a short distance in this direction, one comes rather suddenly upon a number of handsome buildings, which attract the attention of the stranger as at once amongst the finest and newest in the place. With some surprise one learns that these are the medical and scientific institutions of the town; and looking at the masses of building before him, remarkable for their architectural grace as well as their magnificent size, the visitor from England says instinctively to himself, or may even exclaim, "Greifswald!" First, and most prominent of all, on the right stands the Hospital—a large building of four storeys; on the extreme left is the Chemical and Mineralogical Institute; and between the two, and stretching backwards from them at right angles, are the Institutes for Anatomy and Pathology. Besides these there are several smaller buildings in the background. As we have said, all the buildings are new; the Hospital was erected in 1858, and the various institutes even more recently—within the last two or three years.

In describing the various departments and buildings as they be found at Greifswald, we will follow the most natural order, and begin with the preliminary or scientific ones. That is, we will begin by noticing the Anatomical, Chemical, and Pathological Institutes, and leave the Hospital for a future paper.

The Anatomical Institute represents the departments both of anatomy and physiology. The university of Greifswald possesses no fewer than three professors of anatomy and physiology, without having either a so-called pure anatomist or pure physiologist. Until some two years ago both subjects were taught by one professor—Dr. Budge,—but ever since that date this gentleman has had a colleague in Professor Landois, who, while enjoying the same title as Budge, takes the subjects of comparative anatomy, histology, and physiology, and leaves him with pure human anatomy. This arrangement is easily intelligible; but one is at first somewhat puzzled to know what the third professor has got to do. It appears that this is Schultze senior, the venerable father of the famous anatomist of Bonn, who is just dead. Although Schultze is no longer a teacher, his name remains in the calendar as a professor, and he gives one or more lectures on anatomy every session. Professor Budge is well known as the author of several important researches in the physiology of the nerves.

The Institute of Anatomy contains two extensive museums, a large lecture-room, and several work-rooms, and has attached to it the public dissecting-room for the students. The building is in two floors, and presents, let us once more repeat, a most pleasing appearance, especially within—the staircase which fronts the entrance-hall being extremely handsome. The ground floor is chiefly occupied by the rooms of the resident officers and small working-rooms, and the dissecting-room leads off a passage on the left hand. The upper floor contains the auditorium or lecture-hall, the museum of human anatomy, and the museum of comparative anatomy. The lecture-room is large and—like most other new lecture-rooms in Germany—very elegantly decorated. We noticed a railway on the floor for bringing in the subjects for demonstration. The whole of the west side of the floor is occupied by the comparative anatomy museum—extensive, and well filled with carefully prepared specimens of the various classes of animals. The museum of human anatomy is on the north and east sides; the specimens are exhibited in cabinets which are so disposed as to be capable of inspection from three sides. Here also the collection of preparations is good, especially in illustration of development.

The dissecting-room at Greifswald—one of the newest and best we have seen—seems to deserve a short description. It is a single large room, built, as we have said, at the end of the institution, and is reached from the main hall by a wide lobby, flanked by small working-rooms. The dissecting-room itself is built of a double wooden wall, with stones between; the roof is unceiled, the beams and rafters being exposed, and the ridge arranged as a ventilator, with oblique slits. The floor is of asphalte. There are the usual furnishings, water-taps, etc., and the place is well lighted by windows and gas. The dissecting-room is open in winter from nine in the morning till five in the afternoon; in summer there is no dissecting, and the place is used for practical histology. Anatomical subjects are, very naturally, scarce at Greifswald. "Hyrtl" is the text-book in general use.

The Physiological portion of the Anatomical Institute is of comparatively small size. The physiological teaching apparently takes the form chiefly of lectures, delivered during the students' second and third (first summer and second winter) sessions, and practical histology in the fourth, or second summer session. The collection of physiological apparatus is not large.

The Chemical Institute (which accommodates also the Mineralogical department) is a good example of the magnificent class of buildings devoted to chemistry which are yearly increasing in number in Germany. It is at once extensive and handsome; indeed, we have seldom seen a finer building of the kind. The lower floor of the Chemical Institute is arranged almost entirely as practical rooms, while the upper is occupied with lecture-rooms, museums, and preparing laboratories.

The largest practical class-room is arranged for fifty-six students, although half that number would work with greater comfort. The working-places are high tables, provided with the ordinary reagents on shelves in front, and water-taps, sinks, and gas at the ends. Round the walls of the room are stink-chambers and stoves, and at the windows working-places. The medical students work here from two to three in the afternoon during the session, and in the forenoon the place is occupied by

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pharmaceutical pupils. A smaller practical class-room accommodates twenty-four students, and is similarly arranged; so that Greifswald University can boast of having room for eighty chemical pupils at work at once! Beside the practical class-rooms are other necessary apartments for rough analysis, furnaces, etc., a "dangerous" verandah, the professor's private laboratory, and near the last a small chemical library. The lecture-rooms on the upper floor present nothing calling for special remark. There are two chemistry lecture-rooms—a larger and a smaller,—and a lecture-room for the mineralogist. The Chemical Museum seems well filled and kept. Dr. Limpricht is Professor of Chemistry.

The Mineralogical Museum occupies nearly the whole front of the building. The specimens of minerals and fossils are exposed in low cabinets with sloping glass tops. The professor's room and lecture-room open off the museum. The present Professor of Mineralogy is Dr. Hünefeld.

The Pathological Institute has much the same external appearance and internal arrangement as the Anatomical, which has just been described. Like it, it contains two floors—the upper occupied chiefly by a magnificent lecture-room and a large museum, and the lower by smaller working-rooms and the dwellings of the officers. A considerable portion of the upper floor, however, is taken up by a large practical class-room, where the professor may meet no fewer than thirty students at a time all seated at working-tables. On the ground floor, again, are two section- or necropsy-rooms; one of these is especially well fitted up, both for making a satisfactory examination and allowing numbers of students to look on with more comfort and advantage than they generally enjoy at post-mortems. These ends are attained by raised standing-places being arranged along the sides of the room, while a mechanical table is placed in the middle. The second post-mortem-room communicates with the underground cellars, where the bodies are kept, by means of a "lift." The whole arrangement of the Pathological Institute at Greifswald seems to be excellent, and the opportunities afforded the students for learning pathology unusually good. Pathology is studied chiefly in the second and third years. The present professor is Grohe. The hospital supplies abundance of material for pathological study.

The Zoological Museum—such as it is—is at some distance from the other scientific collections. It is under the direction of Dr. Münter, the Professor of Zoology. The same gentleman is also Professor of Botany, and superintends the Botanical Museum and the Botanical Garden. The latter, which lies near the railway station, is of no great size.

We shall proceed to describe the Clinics at Griefswald in an early number.

THE KOSTROMA PEOPLE.

By the courtesy of their guide and *entrepreneur*, M. de Murath' we have been favoured with a private view of these singular Russian "hairy folk," who are now exhibiting at the Lyric Hall, Great Portland-street, and elsewhere. The pictorial representations which are so freely exhibited on walls and advertising stations, and even the photographs taken of them, give an erroneous impression of their appearance, differing widely from the reality in giving a ferocious aspect which is wanting in the originals. The man, Andrian, who is about fifty-seven, is said to be the son of a soldier from the busy manufacturing department of Kostroma on the Volga. Neither his reputed father nor his mother are known to have had any notable peculiarities. Minute inquiries have, however, shown that he was born during his father's active service in the army, and that in a neighbouring department there is a woman still living who has a very long beard reaching to her navel. Andrian's brother and sister are like other people. He himself, being roughly treated by the denizens of his native place, betook himself to the woods, living in a cave, and taking a good deal of intoxicating liquor. He is said now to live principally upon *sauerkraut* and *schnapps*. His intellect, such as it is, does not appear to have suffered much from this diet. He seems fairly intelligent, is good-natured, and very fond of his boy. The face and neck, front and back, are covered with a profusion of soft brown silky hair, like that on his head. Some of the hairs on the cheeks and nose are quite seven inches long; on the neck they are not so long, and this forms, in the language of Professor Virchow (who gives a very accurate description in the *Berliner Klinische Wochenschrift* of June 10 last), "an intermediate zone" between the hairy face and the rest of the trunk. Except a few scattered tufts of hair on other parts of the body, the arms, legs, and trunk display nothing very remarkable. The eyelids and eyelashes are not very different from those of other people. He has brown irides, and the eyes are bright. His forehead, nose, and cheeks are all thickly covered with the long hairs mentioned before, giving him the look of a man wearing a mask of (dressed) sealskin or brown bear's fur. The nostrils and insides of the ears are also graced with long tufts of hair. The little boy Feodor is four years old, and is a bright, intelligent, and lovable child, who can talk well and walk well. He is downy all over, and on his back and arms there are little spots of about one-third of an inch in diameter, covered with tufts of fine soft yellowish-white hair from one-third to half an inch long. He has a beautifully white skin, and the hairs on his face are less general and more in tufts than those of his father. Long tufts of hair grow out of both his ears, giving him (as Professor Virchow well remarks) a "rabbit-like" look, and there is also hair on the temporal and zygomatic regions. The dentition of both is very peculiar. The boy has only four incisor teeth, all in the lower jaw, the whole of the upper jaw is toothless, and there is scarcely any alveolar process. In the man, also, the upper jaw is toothless except for one canine, and the lower jaw has only four teeth developed (incisors), and some traces of others.

In his comments on the case, Professor Virchow quotes the cases by Crawford (more recently described by Dr. Beigel in Virchow's *Archiv*, Bd. 44) of a family in the kingdom of Ava in which the peculiarity descended through three generations. Shwe-Maon, the father, resembled Andrian. He had only four teeth (incisors) in the upper jaw, and four incisors and one canine in the lower jaw, and he cut his first tooth in his twentieth year. His daughter, Maphoon, was also very hairy, and had only four (incisor) teeth in each jaw. She cut the first two incisors in her second year. She gave birth to an equally hairy son. Our Kostroma hairy man had two children by his wife (*not* Feodor's mother), who were destitute of unusual hairy growth. Except Maphoon, the other children of Shwe-Maon were not thus remarkable. The stories of a race of hairy people amongst the Japanese, known as Ainos, or "hairy Kurilese," are shown by photographs and skulls to be unfounded, since these people are only more bearded than their neighbours. Professor Virchow alludes to the case of Julia Pastrana and other bearded women, such as the Swiss woman figured in the *Lancet* for 1852 (vol. i., p. 421), whose sex was in doubt till she proved to be pregnant! He points out that these masculine women differ from the cases now exhibiting. Our Russian hairy folk have the abnormal development of hair almost limited to the trigeminal nerve region, and the defective dentition belongs to this tract also. We have thus three groups of hairy people—

1. Excessive development of hair in women following the "manly" or male type of development.
2. The formation of hairy moles or nævi exhibiting also abnormalities of skin.
3. The edentulous variety (whose true pathology is yet quite unknown), to which the Kostroma people belong.

LOCK HOSPITALS IN BENGAL.

A correspondent informs us that according to a report recently published by the Quartermaster-General of the Indian Army on Lock Hospitals in the Bengal Presidency for 1872, the general results of the Lock hospital system during that as compared with previous years have been satisfactory, but that in many instances—from inefficient working of the rules—a wide margin still remains for further improvement. Of thirty-six stations at which Lock hospitals exist, the reports for 1872 show a decrease in the prevalence of venereal diseases among European troops in twenty-three, varying from 237·7 per mille at Dinapore to 8·7 at Roorkee. An increase has occurred at three stations—viz., Umballa 37, Dalhousie 194·1, and Jullundhur 233·5 per mille. At Naquee Tal the decrease amounted to 294·4 per mille; but as the hospital was

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opened in July, 1872, and as out of 175 women who were at first registered no less than 149 absconded within a very short time, and of the 26 who remained 15 went to the plains before the cold weather set in, it would appear that the decrease was due to a regular stampede rather than to any improvement effected in their health by inspections and medical treatment. It may, however, fairly be presumed from the facts above stated that a very large proportion of those who fled must have been the victims of disease.

At Dinapore, the admissions from venereal diseases among European troops amounted to 320 per mille in 1871, and to 82·26 per mille in 1872, showing a decrease of 237·74. Such a highly satisfactory result could only have been attained by the zeal and care with which the system in all its details must have been worked by Surgeon W. A. Gardiner of the Royal Artillery, the medical officer in charge. At Hazarubagh the decrease of admissions among European troops amounted to 225·5 per mille; the hospital is under the charge of Doctor Delpratt, the civil surgeon. At Jhansi, also, the system appears to have been thoroughly well worked by Surgeon R. Macmullen, of the 106th Regiment, and the results to have been proportionately good, a reduction of 125·7 per mille having occurred in the admissions from venereal diseases among the European troops. At Shahjehanpore, under Surgeon-Major Kelsall, of the 1st Royal Scots Regiment, the results have been most gratifying, the admissions of European soldiers having been reduced from 265 per mille in 1871 to 66·3 per mille in 1872, showing a decrease of 198·7 per mille. At Delhi, where the hospital is under the charge of Dr. Keefer, 20th Native Infantry, the results also have been good, the admissions of European troops having been reduced from 308 per mille in 1871 to 157·9 per mille in 1872, or 159·1 per mille.

The working of the rules at Jullundhur has been extremely unsatisfactory, and so far as the prevention of disease is concerned, there might just as well have been no Lock hospital at all—an increase of 233·5 per mille having occurred in the admissions among European troops. There are two Lock hospitals at Jullundhur, one in cantonments, and one in the city. The women in the latter are said to have become very irregular in their attendance, as the Deputy Commissioner would not punish them when reported.

At Dalhousie the Lock hospital was in existence only for the six months, during which invalids were stationed there, and during that time was under the charge of three different medical officers. As compared with the previous year an increase of 194·1 per mille occurred in the admissions of European soldiers for venereal diseases. This is attributed by the medical officer and the Assistant-Commissioner to the unregistered prostitution of Coolie women employed in building the new barracks; but as female labour was employed for the same purpose in 1871, when the rate of admissions per mille was 96, the tripled rate for 1872 is probably due to less strict supervision.

At Umballa the admissions per mille of European troops amounted to 199·4 in 1872, and to 162 in 1871, showing an increase of 37 in 1872. This increase occurred chiefly in the earlier months of the year, during which large numbers of troops passed through to and from the camp of exercise, and there was little or no control over the women who entered the place for prostitution.

At Lucknow the amount of disease among the registered women was extraordinarily large. The average number attending the examinations was 75, and of these 32 were on an average found to be diseased. In June, 63 women presented themselves for examination, and the *whole* of them were found to be diseased, and detained for treatment. The rate of admissions, however, among the European troops decreased by 76·9 per mille; but from the returns it would appear that if the men resorted solely to the registered women they could hardly escape disease, and that the system instead of being beneficial is actually pernicious.

We believe that the opinion is gaining ground among the military authorities in India that the executive charge of the Lock hospitals should in every instance be held by medical officers of the British service, instead of by those of the Indian, and that their administration ought to be under the control of the Surgeon-General of the British rather than of the Indian Medical Service. The Lock hospitals have been established solely for the diminution of venereal diseases among the British troops, and it certainly appears inconsistent to place the measures for the repression of disease in the hands of one set of doctors, and the curing of it in the hands of another and completely distinct set. It also appears reasonable to expect that the medical officers who see most of the disastrous results of the disease should feel and exhibit greater interest and zeal in working out the system adopted for its suppression. It is also, we believe, a fact that at those stations where the Lock hospital system has been most markedly successful, a medical officer of the British service has been in charge of it—for example, Jhansi, Shahjehanpore, Agra, Dinapore. There are instances the other way, of course—*e.g.*, Barrackpore—but they are exceptional.

FROM ABROAD.

Parenchymatous Injections of Carbolic Acid as an Antiphlogistic.

We reproduce almost textually from the *Centralblatt* of January 24 an important article bearing this title, from the pen of Professor Hueter, of Greifswald.

Although (he observes) the antiphlogistic action of carbolic acid as a dressing for wounds is sufficiently well known, and subcutaneous injections of it have been used as an antipyretic in intermittents, the parenchymatous employment of carbolic injections as an antiphlogistic, as I have used them in my clinic with such distinguished results, has not as yet been made known. I can believe that this mode of employing carbolic acid may excite a certain amount of not unjustifiable fear on the ground of the danger of producing general carbolic acid poisoning. On this account, I at first proceeded with these injections with the greatest circumspection, and only after I had, by experiments on frogs, assured myself that the general action of the means is confined to the influence of the carbolic acid on the red corpuscles of the blood. In the subcutaneous and parenchymatous employment of the acid, it is essentially only a lymphatic absorption which takes place, and only the most fractional portions can gradually enter into the circulation of the blood, when the whole dose does not become combined with lymph in the lymphatic apparatus which it traverses, whereby all intoxication of the blood is avoided.

In the present paper I confine myself to exhibiting the practical utility of the antiphlogistic injection of carbolic acid into the inflamed parenchyma of the most different organs. For this purpose I employ a watery solution of the pure acid, containing two parts in the hundred, using Pravaz's syringe for making the injections. This holds 0·9 gramme of the solution, and therefore somewhat less than 0·02 gramme of the acid; and after the parenchymatous injection of two syringefuls, one after the other, not the slightest sign of intoxication has been perceived, and especially has there been no black discoloration of the urine produced. I have not gone beyond two simultaneous injections, and the repetition has been made, when this has been necessary, at one or two days' interval, without any accumulation in the circulation having given rise to intoxication. Neither pain nor swelling is observed at the injection-points; and so absolute is the painlessness of the procedure that young, sensitive children have never complained. The anæsthetic action of carbolic acid is, indeed, well known. The following are some of the affections in which the antiphlogistic action of the injection seemed most determined:—

1. In *synovitis hyperplast. granulosa* (white swelling or fungous inflammation) of the knee. The injection was thrown into the most central part of the joint, so that the needle came in contact with its walls. The effect was—cessation of pain, diminution of long-enduring elevation of the temperature at night, and a remarkable diminution of the swelling. On account of the chronic nature of the case, the injections had to be repeated at intervals of two or three days. 2. In *subacute glandular swellings with tendency to suppuration*, and buboes whether in the inguinal or femoral region. Effects: cessation of pain, the redness of the skin and the œdema disappearing; the gland became rounded in form, and gradually returning to its normal condition. Several injections have

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been necessary to secure complete recovery. 3. In *acute phlegmon of the subcutaneous and subfascial connective tissue.* The most peripheric part of the phlegmon is to be chosen, so that the lymphatic vessels may convey the acid in a central direction. In extensive phlegmons, two syringefuls may be injected at different points. Effects: Shrivelling of the tissues in a few hours; immediate cessation of pain; and recovery without suppuration (if this had not already been developed), although it seemed imminent. 4. In *traumatic erysipelas.* In this disease I have injected at different points along its border, in order to prevent erysipelas of the forehead, for example, passing over to the hairy scalp. This end has been attained; but as yet I have not ventured to inject the whole border of the erysipelas in numerous places in order to cut short its course.

I lay great stress on the parenchymatic character of these injections, whereby the carbolic acid is conveyed into the cavities of the largest joints, into the perivascular connective tissue, and into the interior of the glandular substance, and is enabled there to develope its local antiphlogistic power, where almost every method hitherto employed, with the exception of the knife, has failed of success. In this sense I consider that the parenchymatous injection of carbolic acid constitutes the most powerful antiphlogistic means with which the employment of ice, the abstraction of blood, or any local application cannot compete. I hope that it will not only be employed in surgical practice, for an important field is presented for its action among the diseases of internal organs. There ought to be no essential difficulty in injecting the parenchyma of the lung, spleen, liver, or kidney; but the effects of this must be tried first on animals before one feels justified in proceeding thus far. In all cases, the direct injection of this substance into a vein must be avoided, in order that an acute carbolic intoxication may not be produced. In order to be certain on this point, a preliminary puncture should be made with the needle, and observation made whether drops of blood flow out. When this is the case, the needle should be either drawn somewhat back or thrust deeper in, and the injection made only when no blood issues from the canula. In the treatment of non-malignant tumours, *e.g.*, fibroma, the same good effects may be expected from these injections; but I have no instance of complete recovery to adduce, and I forbear to offer too enthusiastic a recommendation in this direction. Malignant tumours also may be brought experimentally within the province of this investigation, especially as the injections act as anæsthetics, not as irritants. It is, however, to be borne in mind that in the employment of the carbolic injections in very vascular tissues and tumours, carbolic intoxication may be easily induced.

Mortality Returns of Paris.

In his report to the Hospita lMedical Society on the prevalent diseases in Paris during the last three months of 1873 (published in the *Union Médicale*, February 3 and 7), M. Besnier states, that with atmospherical conditions of exceptional benignity, there was a low state of mortality in the hospitals. The cholera gradually expired, and deaths from variola continued to be absent from the registers. The exacerbation of typhoid fever, which took place in the autumn, yielded in November, but *diphtheritic affections* continued to prevail. *Croup* has shown the same tendency to increase, both as regards the number of cases and the fatality of the disease, that it has done for some years past. The numbers for six years are as follows:—1866, 318 cases, with 204 deaths (64·15 per cent.); 1867, 194 with 124 deaths (63·91); 1868, 300 with 192 deaths (64); 1869, 271 with 198 deaths (73·06); 1872, 465 with 327 deaths (70·32); 1873, 463 with 330 deaths (71·25). M. Homolle, reporting from the Children's Hospital, states that there were eighty-four (with twenty-seven recoveries, and fifty-seven deaths) cases of the various forms of *diphtheria* treated therein during the year. Of these fifty-five were cases of croup, in thirty-four of which tracheotomy was performed, with eight recoveries (23·5 per cent.) There were seventeen boys and seventeen girls, but while only two of the former recovered after the operation, six of the latter did so. Of fifteen cases not operated upon, ten proved fatal, eight occurring in girls with four recoveries, and seven in boys with but one recovery. Five of the cases were primary croup, all of which recovered; and sixteen were either cases occurring secondarily in other diseases, or appearing as ultimate results of diphtheria, all proving fatal.

Although the number of cases (1284) of *typhoid fever* has been absolutely less than during the last-reported six years, the mortality (305) has exceeded the mean of these years. The *eruptive fevers* of all kinds have been considerably less than for several years past; and with respect to *variola*, it has reached a most remarkable minimum, there having been only twenty-one cases admitted into the whole of the Paris hospitals during 1873, and only one death resulting—a fact entirely without precedent in the epidemic history of the disease. Several tables are given by M. Besnier, illustrative of the epidemic of *cholera* in 1873, as contrasted with that of 1865. It had a much shorter duration than any preceding epidemic; for the cholera of 1832 lasted seven months, that of 1849 fourteen months, of 1853-54 five months, of 1864 six months, of 1866 six months, while that of 1873 lasted hardly three months. So, too, the number of deaths was infinitely less than in former epidemics, being only 855, while in 1832 they amounted to 18,684, in 1849 to 19,184, in 1853-54 to 9096, in 1865 to 6591, and in 1866 to 5489. But in spite of the smaller number of cases, the mortality has at least equalled that of the worst of the former epidemics, amounting to above 50 per cent. Of the 855 deaths, 566 took place in private practice, 259 in the civil hospitals, 24 in the military hospitals, and 4 in the prisons. Of the cases treated in the hospitals, the proportion contracted by inmates of the hospitals was 31·45 per cent., while in 1865 it was only 19·12 per cent.—a wholly inexplicable increase, seeing that the total number of cases was so much less, while the means of isolation were much more complete. The mortality of these "interior" cases, even when occurring in subjects who were in the hospital only for affections devoid of danger, was 70·14 per cent., while that of cases brought in was only 54·45 per cent. *Puerperal affections* have not prevailed extensively in 1873; of 17,825 women delivered by the Assistance Publique, 343 died—*i.e.*, 1·94 per cent. This mortality is thus distributed:—Of 5994 women delivered in the hospitals, 229 (3·82 per cent.) died; of 1784 delivered at the residences of midwives, 17 (0·95 per cent.) died; and of 10,047 delivered at their own homes, 25 (0·24 per cent.) died. There were also 72 deaths among those delivered at home and subsequently admitted into the hospitals.

Paracentesis Thoracis.

A short time since a discussion arose at the Lyons Medical Society (reported in the *Lyon Médical* for December 7 and February 1) upon paracentesis thoracis. It originated in a successful case of empyema, treated by M. Tripier by means of Potain's syphon, after repeated punctures and iodine injections had been tried in vain. M. Perroud related a case of purulent pleurisy, in which a cure was effected at the end of three months without any intervention, the pus discharging itself spontaneously by an aperture in the thorax. M. Icard drew attention to M. Besnier's statement that the mortality from pleurisy in Paris had doubled within the last six years, and inquired what influence had paracentesis—so frequently resorted to during that period—exerted with respect to the purulent character of the effusion and the increased mortality. In contrast with this statement, M. Clément adduced the slight mortality from pleurisy in the military hospitals, where its treatment is exclusively medical. M. Mollière observed that there is a great difference between the prognosis of true empyema and purulent pleurisy; this last almost always proving fatal. It may, in fact, be laid down as a general rule that when purulent liquid is free in the pleural cavity death is certain, while there is much more chance of recovery when it is encysted by false membranes. M. Gayet also believed that some purulent pleurisies are entirely beyond the reach of art, as when the lung becomes flattened against the spine, and is unable to dilate, so that an enormous cavity remains which is not filled up by the falling-in of the ribs or the displacement of neighbouring organs. In three such cases in which aspiration was employed no definite results ensued, although the general condition of the patients was much amended. M. Tripier observed that the expectation of finding a form of treatment applicable to cases of empyema that had no resemblance to each other is chimerical, and that each case must be judged of and treated according to its own local and general conditions. If the effusion is considerable,—if the pleurisy is of old date,—and if thick, fibrous, false membranes line the pleura,—a cure is very difficult. Secondary purulent pleurisies, which occur in aged persons and even in adults, are much more dangerous than primary pleurisies and those of young subjects. As long as the patient's general condition continues satisfactory, any mode of treatment may be adopted, and the simpler this is the better; but if there are any indica-

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tions of threatening purulent infection, the operation for empyema should at once be resorted to. In serous effusions, M. Tripier is a warm partisan of thoracentesis, and he has met with no accident in forty cases he has so treated. As to statistics brought forward on this operation, they are usually so wanting in details as to be of no worth in determining our procedures.

M. Laure believes that it is unjust to attribute the increased mortality from pleurisy recorded of late to the employment of thoracentesis. The cases require a more minute examination than they have received, especially in presence of the greater attention that has been paid to the disease of late. There can be no doubt that paracentesis is sometimes the means of saving the patient from sudden death, although in some cases the relief is not permanent. It would seem to be indicated under the following circumstances:—1. Whenever there is danger from asphyxia, whether this be caused by the abundance of the effusion or by some complication, as bronchitis, pulmonary œdema, etc. 2. In abundant effusions, which do not yield after some days of internal treatment. 3. In cases of latent pleurisy. 4. In purulent pleurisy of recent date. On the occasion of a second and succeeding punctures iodine should be here employed. 5. In purulent pleurisy, coming on suddenly after delivery, simple puncture is also inefficient, drainage and injections being required. M. Laure has not found aspiration of utility in serous effusions, but regards it as a valuable resource in purulent effusions when medicinal injections are required. M. Meynet observed that acute pleurisy is very common among children, and, although he has met with a great number of cases, he has never had to practise paracentesis. The absorption of the fluid, however abundant this may be, takes place in them with marvellous rapidity, a few blisters and diuretics being all that are required. Purulent pleurisy also is cured in them with incredible facility. He is of opinion that M. Roger practises paracentesis too often.

REVIEWS.

A Treatise on Medical Electricity, Theoretical and Practical, and its Use in the Treatment of Paralysis, Neuralgia, and other Diseases. By Julius Althaus, M.D., etc., Physician to the Infirmary for Epilepsy and Paralysis. Third edition. London: Longmans. Pp. 729.

There are few men in this country who have a better right than the author of this work to speak with authority on the uses of electricity in medicine. This arises in more than one way. In the first place, Dr. Althaus has given to its study many of the best years of his life; and in the second, he has had the satisfaction of seeing that mode of electrisation which he had so long and so constantly advocated—viz., the continuous current—come to be accepted by the profession at large very much at the value he originally placed upon it. The whole history of the introduction of electricity into practice in this country is curious. The great difficulty lay at first in obtaining suitable apparatus, and, of course, it was found in a certain way easier to adapt faradic electricity to medicine than the other variety. So, then, two sets of men were at work—one set with the interrupted current, the other with the continuous current; and as the former could not by any possibility obtain the results of the latter, they were inclined to pass them by as unreliable. It was not, indeed, until a fairly satisfactory battery, which would be constant as well as continuous, was attainable that the general introduction of this form of electricity into medicine became possible. In succeeding editions, Dr. Althaus's book has grown in a remarkable way, the present being far larger and more complete than either of its predecessors; and in this way it leaves little to be desired. It begins with some account of the various modes of electric force, and the ways in which they may be generated, including a very useful description of all the most important forms of batteries available for medical use. The succeeding chapter is a very interesting one; it deals with a purely physiological subject, but one which is of the first importance: it relates to electro-physiology. We may fairly say with regard to it that we have not seen, in equal compass, a more able *résumé* of the whole subject; and it deserves to be read by everyone desirous of mastering what ought to be the rudiments of the application of electricity to medicine. Unfortunately, here in this country, as with respect to many other things, we are too much inclined to put the cart before the horse—the practice before the science. It would be quite impossible in our limited space to enter into any discussion of this chapter, for there are so many points of interest in it, so many which require careful study, that we are reluctantly compelled to pass it over.

The third chapter deals with medical electric apparatus and the methods of using it, and here will be found a list of some importance to medical practitioners—viz., one discriminating between constant and inconstant batteries. By a constant battery is meant one which will maintain for a considerable period a current of nearly uniform strength. In an inconstant battery we may have at the moment of starting off a current of very considerable power indeed, but, owing to some fault inherent in its construction or principle, this rapidly diminishes in intensity, and finally dies out. Such a battery is practically useless for ordinary medical purposes. As an example we may cite the ordinary bichromate battery; whilst of the other, or constant variety, no such good example can be given as some modification of Daniell's battery. Though faradisation is not without its uses, these seem in the meantime to be—perhaps from the reaction of opinion—somewhat under eclipse; but if anyone desires to read a glorification of this mode of applying electric force to the cure of disease, let him peruse Duchenne's great work, which might almost be described as a work for the laudation of interrupted electricity. His apparatus for applying it might accordingly be expected to be correspondingly perfect; and that is so, only in this country the more portable and convenient apparatus of Stöhrer is now generally used.

The fourth chapter of the volume is one of greater practical interest to the physician. It deals with electricity as a means of diagnosis. Briefly, this may be said to be of the first importance, but in no instance more so than in helping us to separate central from peripheral paralysis. But it is the next chapter which will be most eagerly perused by practitioners, for in it are set forth the uses of electricity in disease. It is always an important matter to know what a certain remedial agent will do and what it will not; and here we have fairly set out at all events all the legitimate claims of electricity as a therapeutic agent in every form of disease. Whether all these claims will ultimately be justified is another matter; but it is at all events important to know what they really are.

In conclusion, we have again to say that Dr. Althaus's book is exceedingly well worthy of attention. It is a reliable authority on the subject on which it treats, and comprehends in a moderate space all the most important facts a man who desires to use electricity aright in the practice of medicine ought to be master of. In reality, a vast deal of information is here condensed into, comparatively speaking, small compass, notwithstanding what seems a considerable bulk; but those who come to study the work will regret neither its bulk nor its extent.

Intorno all' Onichia Maligna e al Modo di Curarla. Memoria del Dott. T. Vanzetti, Professore di Clinica Chirurgica nella R. Università di Padova. 1872.

This is probably the most complete monograph on the subject of onychia maligna that has been written, and it will be invaluable for all time to anyone wishing to have a thorough knowledge of so interesting and, hitherto, so unmanageable a disease. Professor Vanzetti shows an intimate acquaintance with the works of foreign authorities, and renders his own essay doubly valuable by the ample quotations from them which he gives in illustration of what he advances. As various diseases of the nail have been sometimes classed together under the common name of onychia, it may be as well for us at once to describe briefly onychia maligna as Professor Vanzetti understands it, before discussing its causes or its treatment. He defines it as a circumungual ulceration, preceded by inflammation, and accompanied by a swollen condition of the terminal phalanx of the finger or toe, very painful, foul, and inclined to bleed, resulting in detachment of the nail from its bed, and extremely chronic in its duration. It is a disease which, if once seen, is not likely to be confused with any other disease of the nails. In the majority of cases the patients complain of pain in the affected digit, almost more acute and more lasting, Vanzetti says, than in any other disease. The pains are sometimes worse at night. The affected finger or toe is exquisitely sensitive to the least pressure or touch, and if a finger the patient keeps it stretched out so as not to rub against the other fingers or the palm. There is a great proclivity in

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the ulcer to hæmorrhage, especially when it is seated on the toe. Wardrop has also noticed this fact. The disease lasts an indefinite period, without any tendency to heal, and some cases have extended over four or five years. Vanzetti has not seen a case where the phalangeal bone became carious or otherwise diseased, though others—*e.g.*, Nélaton and Henry Smith—have mentioned instances of this. Onychia maligna rarely relapses when once it has yielded to treatment. The only case of relapse which Vanzetti can find is one reported by Gosselin, of Paris, where the patient—in whom there was no suspicion of syphilis—was first attacked in both thumbs in 1855. In 1856 the middle finger of the left hand was affected, in 1857 the left index-finger, and in 1861, for the second time, the right thumb.

Fortunately, the disease is rare. Vanzetti tabulates seventeen cases, the only ones reported up to 1862. Until 1868 he himself in fourteen years had only seen two cases, both in adults, arising from contusion, and cured by total excision of the nail-bed. From March 29, 1868, to August 3, 1870, eleven cases came under treatment (in a sort of small epidemic) from the neighbourhood of Padua.

Onychia maligna seems to be about equally common in the two sexes. It is more frequently met with in children under ten years than in adults, but cases are recorded up to forty-five, beyond which age it has not been met with.

The lower classes of society are principally affected by it. It occurs indifferently on any finger of the hand, except, perhaps, the little finger; on the foot it is the great toe which is most often attacked. Syphilis has usually been assigned as the cause of onychia maligna, but Vanzetti says he cannot admit that it has a syphilitic origin. Of course it may arise in a syphilitic person just as in anyone else. There must be some peculiar predisposition in individuals to the disease, for some get well soon after an injury to their fingers, while in others onychia maligna developes itself. Against the idea of syphilis must be set the facts that onychia is most common in early life and in patients otherwise healthy, and that it can be cured without specific treatment. Gosselin, who some time ago examined the question with great care, could not find any definite ground in any of his cases for thinking that syphilis was the cause of them; and Vanzetti, in his cases, has also failed to trace any connexion between the two maladies. The onychia may arise spontaneously without assignable cause, or may follow some mechanical injury. With regard to treatment, onychia maligna has hitherto rebelled against all internal remedies, and externally only evulsion of the nail, or total excision of the skin on which it is seated, with caustic applications to the ulcers afterwards, have been of any use. The above operations are not in reality so easy to perform as might *à priori* be imagined, on account of the delicacy of manipulation required, and the great pain which the patients suffer. Moreover, the use of chloroform is not free from danger in these cases, for four deaths from it have been recorded during the operation—three in England, and one in Paris.

It is thus a happy thing that a remedy has been discovered which does away with all operative procedures, and cures onychia maligna rapidly and painlessly—namely, *nitrate of lead*. Dr. Moorloose, of Gand, was the first to notify this fact, in 1864, and his paper will be found in the *Abeille Médicale* (No. 16, April 17, 1865), but up to 1868 no one else seems to have made trial of it, nor was it mentioned in any work on materia medica and therapeutics except Trousseau and Pidoux's "Traité de Thérapeutique." In the eleven cases previously mentioned which came under Dr. Vanzetti's care in 1868-70, nitrate of lead was used, and with unvarying success. Some of the cases got well with one application of the salt in powder to the ulcerated part; some required two or three dressings. The ulcers soon lose their foul aspect, and granulate in a healthy manner, and then they rapidly heal. Thus one case of a year's standing was well in two weeks; no other treatment was used. And in all the new nail was healthy and perfectly shaped.

We have now gone through the principal points of interest in Professor Vanzetti's work which are likely to be useful to English readers; but we must mention, in conclusion, that nearly all his cases are illustrated by coloured drawings of the parts while affected by the onychia, and also after they were restored to their natural state. The whole monograph gives evidence of the great care and industry with which it has been prepared, and clearly proves, if proof were wanting, that surgery in Italy is by no means at a standstill.

Manual of Lunacy: a Handbook relating to the Legal Care and Treatment of the Insane. By Lyttleton S. Winslow, M.B. and M.L. Cantab., M.R.C.P. Lond., D.C.L. Oxon. London: Smith, Elder, and Co.

Under the modest title of "A Manual of Lunacy," Dr. Lyttleton Winslow has published a work which is not only a handbook, but a comprehensive digest of every subject connected with the legal care of the insane.

The first chapter gives an interesting sketch of the history of lunacy legislation from the earliest period to the present time. He mentions that the first institution for the insane was established in the East, and that in the year 491 one existed at Jerusalem. The oldest hospital for the insane in Europe is Bethlehem, but he observes, "The first legislative enactment for the protection of lunatics was made in 1744."

The second chapter refers chiefly to matters of a statistical nature. From these the author gleans—"That out of the 29,641 patients confined in county and borough asylums, 2635 only are deemed curable. Out of the 2478 patients confined in registered hospitals, the number deemed curable is 413. Of 4173 cases confined in metropolitan and provincial licensed houses, the number returned as curable is 527." From the tables which are adduced, it appears that there has been, during the last few years, a decided increase in the number of insane cases beyond that which can be accounted for by the increase of the population.

The next two chapters contain a useful epitome of the Lunacy Act for England and Wales, and valuable observations on the management of asylums and licensed houses, which will be found of use to the proprietors and medical superintendents of asylums, the rules and directions being clearly laid down.

Following Dr. Lyttleton Winslow's order, we now come to the fifth and sixth chapters, one relating to the law concerning private patients in asylums, and the other to single patients in unlicensed houses. These chapters are of great value, not only to the proprietors and superintendents of asylums, but to the medical profession in general, and to anyone having the legal charge of a single patient. We desire to call the especial attention of medical men not engaged in asylums to these two chapters, as serious consequences often ensue from the imperfect manner in which certificates are drawn up, and from ignorance of the regulations required to be observed by those who have the management of a single patient in non-licensed houses. The English Lunacy Act with all the amendments that have since been passed, and the numerous regulations made from time to time by the Commissioners in Lunacy, are extremely puzzling to medical men who are not practically conversant with the treatment of insanity. For these the instructions are so ample and clear that it is scarcely possible for anyone who follows them carefully to make a mistake. There is one point which Dr. Lyttleton Winslow has omitted, which he will no doubt supply in the next edition. He has not mentioned that medical practitioners residing in Scotland, Ireland, or the Channel Islands cannot legally sign certificates for the admission of a patient into an asylum or private house in England or Wales.

The legal mode of dealing with pauper, wandering, and dangerous lunatics forms the subject of the next chapter. In this place we would remark that the instructions which the author has here given relate exclusively to the *lunacy* legislation, and that any medical man who is called upon to act in a case of emergency, is enabled by the *common law* to put a dangerous lunatic under forcible restraint until such time as the necessary order and certificates can be obtained for placing him in an asylum or under care as a single patient in a private house.

The eighth chapter relates to the all-important question of commissions in lunacy and Chancery lunatics. It opens with a short sketch of the manner in which the property of persons of unsound mind was formerly taken care of. In olden times the king was the natural guardian of all idiots and lunatics; now the Lord Chancellor holds that office, and all idiots or lunatics under his protection are termed wards of the Court of Chancery. All the steps are detailed, necessary for instituting a commission of lunacy in order to establish the lunacy of a patient before his person or property can be placed under the care of the Court; for it must be borne in mind that a lunatic may have been legally detained in an asylum for years, yet, if he has not been found lunatic by inquisition, no one has a legal right to interfere with the management of his property.

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Chapter nine contains the regulations peculiar to St. Luke's and Bethlehem Hospitals. Any case which the boards consider a proper one can be admitted into either of these hospitals free of charge. At St. Luke's only a limited number are taken in entirely free of expense, but others are admitted on a scale according to their means. At Bethlehem a preference is always given to the educated classes.

"The Liability Incurred by those concerned in the Confinement of Persons alleged to be Insane," is the title of the tenth chapter; and as ignorance of the law is not deemed an excuse for its violation, this chapter deserves the careful consideration of all who have the charge of the insane, as well as of those who sign orders and certificates.

The seven succeeding chapters contain a mass of valuable information on the laws of lunacy in Scotland and Ireland, which differ from those in England and Wales; and also on the condition of lunacy in America and the principal nations of Europe. Dr. Lyttleton Winslow mentions a significant fact in reference to the remuneration of physicians in Russia —viz., that the fee in cases of lunacy is never less than three guineas. This is noteworthy just now, when the question of raising physicians' fees in this country is under discussion.

The two concluding chapters embrace the most recent lunacy instructions given by the Commissioners, and an explanation of the terms commonly used to denote the various forms of insanity.

There is an appendix to the book, giving a copy *in extenso* of the Lunacy Act, which will be found useful for reference. There is also a copious index. The whole work is of an eminently practical character, and has been compiled with the greatest care and accuracy.

REPORTS OF SOCIETIES.

CLINICAL SOCIETY.

FRIDAY, FEBRUARY 13.

PRESCOTT HEWETT, F.R.C.S., President, in the Chair.

ADJOURNED DISCUSSION ON PYÆMIA IN PRIVATE PRACTICE.

DR. BASTIAN, in commencing the adjourned discussion on "Pyæmia," introduced by the President's paper on the subject, said that in his sight there were no more important cases than those narrated by the President, where pyæmia occurred without open wound. Such cases undoubtedly did occur in acute necrosis and in fevers, especially typhus, and they might throw light on other cases with wound. We had still to learn whether the so-called septic agencies acted on the wound or through the constitution. The former view was the more popular, yet there was reason to believe the latter was the more correct one. He had made some experiments on ordinary wounds and discharges: in some he found crowds of bacteria, in others none. In a healthy subject, with low bodily temperature, there were no bacteria; but where the temperature was over 101° they were always to be found. In reality, there was no necessity for aërial contamination. He had had a case of acute pemphigus with many blebs intact. These he examined, and found many organic forms in the fluid, but none in the blood. Here there could be no aërial contamination, and such probably was the case even when a wound existed.

Mr. HULKE suggested that a summary of the paper should be laid before the meeting, and this was done by Dr. Southey.

Dr. BRAXTON HICKS said that if they limited their remarks to pyæmia they would exclude some of the most important allied forms of disease.

Mr. HENRY LEE said it would be exceedingly difficult to limit the discussion in this way. Years ago he had been house-surgeon to the Lying-in Hospital, York-road. They had many cases of blood-poisoning and death, but the malady assumed many different forms. If the patients lived long enough, purulent deposits formed. At one time pyæmia was supposed to be confined to one hospital in London. Now it was known that its range was much wider, and that forms of disease were really pyæmic when no pus was formed. Wounds treated by carbolic acid behaved differently from those not so treated, but this was partly from the care exercised. In reality, the attendants often carried pyæmic disease with them. Anything which would prevent the conveyance of dirt from one patient to another would do good. It must also be remembered that the practice of two of the speakers was much larger than usual, and so their experience of necessity wider. In his own case nearly all the pyæmic cases occurred where bones were injured or veins opened. He remembered a very well marked case from venesection, and another from tying a pile by the old operation.

Mr. ERICHSEN said the word "pyæmia" had been used in a most elastic manner, as including every kind of blood-poisoning, and even abscesses of various kinds which appeared to him to be of a purely local character. Many of the cases described by the President as cases of pyæmia, he (Mr. Erichsen) should not have regarded in that light. The disease as he recognised it had its essential origin in a venous thrombosis, giving rise to embolism and to metastatic abscesses. Two or three of the abscesses described by the President were not, he thought, pyæmic abscesses at all, but appeared to be simple abscesses. The abscess in the thigh, for instance, in the case of the old gentleman who had a warty tumour removed from the heel, appeared to him to be such an abscess as one might have in the axilla after the puncture of a finger, or any other injury about the hand. The case of a young gentleman who had an abscess in the calf after running a splinter into the ball of his great toe, also appeared to him to be one of a localised abscess depending upon local irritation. The case of gonorrhœal rheumatism bore very much upon the question of the connexion between urethral inflammations and blood-poisoning. Such a connexion undoubtedly did exist, for there was no condition of surgery in which a more severe rigor took place, occasionally followed by sweatings, than after the passage of an instrument down the urethra. In cases of urethritis, blood-poisoning was very apt to ensue, closely allied to pyæmic conditions, and it seemed to him that that case was one of those remarkable instances of blood-poisoning. Two other cases were those of the ladies who died after the removal of the breast. He himself had never seen a patient die of pyæmia after the removal of the breast, though he had known death to result from erysipelas. He regarded erysipelas as a totally distinct disease from pyæmia. Just as from a stinking drain one person will get scarlatina and another typhoid fever, so from the same condition one might get erysipelas and another pyæmia. In his opinion the two conditions were not interchangeable or at all allied, except remotely in their cause. No doubt in some cases of erysipelas where there was a putrescent slough and filthy pus accumulated under the skin, there might be blood-poisoning, but ordinarily he should ascribe the death to erysipelas rather than to pyæmia. One suspicious circumstance was that these two cases occurred within a month of one another, as if there were some medium of infectious intercommunication between the two patients, giving rise to what was undoubtedly an infectious disease—erysipelas. Private cases were somewhat unsatisfactory as cases on which to found anything like clinical or pathological observations, because there were no post-mortem examinations, and in many cases it was extremely difficult to diagnose during life pyæmia from some other morbid poisons. One striking fact in connexion with the paper was, that though it professed to show the frequency of pyæmia in private practice, only six cases were instanced during more than a quarter of a century's practice in London, and out of those six two were, in his opinion, doubtful cases. He had never seen a case of true pyæmia during the whole of his private practice in London, though he had heard of such. True pyæmia, depending on venous thrombosis, giving rise to embolism and to metastatic abscesses in the internal organs, was, however, extremely frequent and fatal in the London hospitals. He did not believe that air was anything more than the mere vehicle of contamination, whether it were brought into the wound or into the lungs or skin of the patient. He had found pyæmia most common after injuries or operations by which the medullary canal of a bone was opened, especially a bone of the lower extremity, for it was comparatively rare after operations upon the humerus or the bones of the forearm. Position had no doubt something to do with it. In the upper extremity the bone was frequently somewhat dependent, and the pus obtained more ready exit; but the bones of the lower extremity were often raised, and there was a percolation of pus backwards into the medullary canal, by which means infectious matter might get into the system.

The CHAIRMAN, in reply, repeated his belief in the fact that the cases impeached by Mr. Erichsen were true cases of pyæmia, and gave fuller details than had already been furnished of them.

Dr. BRAXTON HICKS had some time since collected a number

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of private cases of delivery—eighty-nine in all—where puerperal fever occurred, and he found that sixty-eight of them had been exposed to animal poisons, including scarlet fever, erysipelas, diphtheria, and typhus. Nine had decomposition of the uterine contents. In twenty-one cases out of the eighty-nine no history of the kind could be found. Some other influence had no doubt deteriorated the general system, and so produced the conditions of puerperal fever. If attacks of diphtheria ran through a ward, it was impossible to separate the one from the other as to causation, though the symptoms might be different.

Mr. Hulke said that the previous speakers appeared to use interchangeably the terms septicæmia and pyæmia; or, at all events, had made them so overlap and intertwine that it was difficult to know what they meant. It was important to lay down some sharp line of definition between the two, though it might be difficult to do so. In the lower animals pyæmia and septicæmia could be imitated. If perfectly pure pus were injected into the venous system of a dog, there would be a great rise of temperature, shivering, malaise, and after a time the dog would recover; and the experiment might be repeated time after time. That was a case of a simple pyæmia. By injecting putrid matter, a train of symptoms would be produced which might be free from metastatic abscesses; there would be a high temperature, shivering, vomiting, purging, collapse, and rapid death. This was septicæmia. In the human subject there was something of the same kind, though most instances of septicæmia ran a less rapid course, and the symptoms were less violently prominent. No doubt there was embolism in the case of multiple abscesses; but it was not embolism that would give rise to one of these abscesses. There were many instances of embolism where a little fibrin had been washed off some valve of the heart, for instance. They were all familiar with such cases; but there were no pyæmic deposits in those spots. There was an admirable example in the embolism of the central artery of the retina, where there was no pyæmic abscess. There probably could be no pyæmia without pus. The question was, How did the pus get into the embolus? That was a question concerning which he felt considerable difficulty. Nor could he see that pus was nothing more than white blood gone astray out of the vessels; if so, why, when it got back into the vessels, should it set up all those disagreeable symptoms? There could be no doubt that conditions which greatly depressed the patient must conduce to the formation of clots of blood in the veins. This was observed in the case of large wars. In the late French campaign, although pyæmia was abundant on the German side, it was more abundant on the French, the soldiers being thoroughly depressed. Any morally as well as any physically depressing cause would co-operate in that way. Where large numbers of men were crowded together, they became thoroughly depressed by breathing the foul air, though the putrefactive material might not be the essential agent of pyæmia. In this direction an explanation might be found why pyæmia was sometimes more frequent in newly opened hospitals and new wards. No one could have been in a hospital or a building where whitewashing and plastering had been going on without being nauseated with the stench from the putrefying size and other animal matter, and this must necessarily produce a very depressing effect.

Mr. Savory said that experimentally we could take a decomposing fluid, inject it into the blood, and produce the effects generally recognised as those of pyæmia. But under what condition was such a poison formed; when did it exist, and how did it enter into the blood? It was formed during the decomposition of animal fluids in connexion with the living human body, and that decomposition was hastened by exposure to air, and also by the introduction of other matter in a state of decomposition. We could therefore well understand how pyæmia might attack anyone, even under the most perfect hygienic conditions, and would be very prone to occur where persons were concentrated together, especially if they had open wounds. If the causes were thus recognised, we might hope to be able to prevent their operation, and make even hospital wards as healthy as private apartments. But there were cases in which wounds were bathed in putrid fluids, in which putrid fluids were shut up in cavities, pent up under heavy pressure, as in the case of a foul, stinking abscess by the side of the rectum; How, then, did these escape? He thought by the dialysing property of healthy membranes, as some experiments by Billroth tended to show. But what had pus to do with pyæmia? Of all fluids it was the most likely to be decomposed; but beyond this there was no specific relation. So of phlebitis. In reality it did not produce pus, but a puriform fluid; and if that decomposed it would produce pyæmia, for it was already in the blood. We ought really to regard pyæmia as one form or phase of blood-poisoning. Septicæmia and pyæmia are but two forms of one disease, often passing into one another. Another form of blood-poisoning was erysipelas, the post-mortem appearances of which coincided with those of pyæmia. We ought to re-study the whole matter; and the President's paper would be of great influence for good if it only excited men to this re-study.

THE PATHOLOGICAL SOCIETY.

Tuesday, February 17.

C. J. Hare, M.D., Vice-President, in the Chair.

The heads of Mr. De Morgan's Thesis on Cancer, to be brought forward on March 3, were read. (See page 241.)

Dr. Morell-Mackenzie exhibited a Papillomatous Web removed from the Larynx of a young lady, who, up to the age of twenty-three years, had never been able to produce a vocal sound. From the history of the case it was clearly established that the growth was congenital. It passed between the vocal cords, and united them in the anterior half of the glottis. It was removed *per vias naturales* with cutting forceps, and the voice was thoroughly restored after a course of three weeks' treatment. Microscopically the growth was made up of a connective-tissue stroma, with a variable number of small cells, vascular papillæ, and superficial epithelium in layers.

Mr. Timothy Holmes considered the case a remarkable one. Could the patient not cry as a baby? If she could neither cry nor scream, the establishment of perfect voice was most peculiar.

Dr. Leared asked what is the mechanism of voice as distinguished from an articulate sound?

Dr. Mackenzie replied that he also considered the case a remarkable one, and it was for that reason that he had brought it forward. His patient was voiceless, not speechless; in other words, she could articulate, but could not produce a vocal sound. The essential difference between the two functions was often overlooked, and Dr. Mackenzie observed that he not unfrequently had cases of aphasia sent to him by practitioners under the supposition that the vocal organ was affected. In answer to a question put by the President, Dr. Mackenzie said that the power of modulation of the voice was perfectly established.

Dr. Coupland exhibited a specimen of Tuberculosis of the Choroid, taken from the eyes of a child aged eight years which died of acute general tuberculosis. An ophthalmoscopic examination was twice made—on the last occasion twelve hours before death. The disc was found nearly normal; but at several parts of the fundus were discovered yellow flecks as large as a millet-seed, rounded, with bright centre and dusky margin. They were not found to bear any local relation to the vessels. Post-mortem, tubercles were found in all the principal organs. There was marked tubercular meningitis. The retina was intact, but yellow spots could be seen shining through it, and when it was removed they presented themselves as well-defined elevated spots—about twenty in either globe—and situated chiefly to the outer side of the optic eminence. The capillary layer of the choroid could be traced over the margins of the tumours. The swellings could be resolved by the microscope into cells, mostly round and nucleated, and about the size of leucocytes, mixed with larger ones containing more nuclei. At other parts they were more amorphous. There was a local relation between the vessels and the growths. The normal pale cells of the choroid were probably too abundant; the pigment the reverse. Dr. Coupland remarked that but few cases of tuberculosis of the choroid have been recorded. Cohnheim has written on the subject, and has expressed his belief that tuberculosis of the choroid occurs in all cases of acute miliary tuberculosis. The disease bears no relation to the amount of meningitis. There was no lymph in the meninges in the present case.

The President referred to the importance of such a specimen in the question of the anatomy of tubercle.

Dr. Frederick Taylor showed a specimen of Aneurism of the Aorta opening into the Pulmonary Artery. It was taken from the body of a man of thirty-nine, who had bee

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soldier and in India, and had suffered from neither syphilis, rheumatism, nor gout. Serious cardiac and pulmonary symptoms were present but a few weeks before death. The heart was found to weigh twenty-eight ounces. Just above the aortic valves was an aneurism—one inch by one inch and a half in size—adhering to the pulmonary artery, bulging into it, and communicating with it by means of an aperture immediately on the level of the valves. One of the pulmonary valves was abnormally adherent to the wall. There was atheroma of the rest of the aorta. The interest of the case was chiefly clinical.

The PRESIDENT inquired whether during life there was any pulsation in the jugular veins, to which Dr. TAYLOR replied that the veins were full, but were not observed to pulsate.

Mr. MYERS exhibited an Aneurism of the Aorta which burst into the Pericardium. The specimen was in no respect extraordinary; it was situated immediately above the valves. The interest lay in the history of the subject of the disease, a soldier who died suddenly on duty without any history of chest disease. Mr. Myers maintains that there is a peculiar disease of the aorta in soldiers, due probably to over-strain. This, however, is not one of those cases; the disease here appeared chiefly as patches of atheroma. Some pathologists consider the condition due to syphilis. This man had twice been treated for primary sores, but never had secondary symptoms. Was there, then, syphilis here?

Mr. ARNOTT asked whether there was any further history of syphilis. If not, he should be loth to accept this as an evidence of a constitutional condition.

Dr. PYE-SMITH inquired how the man came to be twice in the hospital with primary syphilis.

Mr. HULKE asked if there was any trace of iritis.

The PRESIDENT asked if there was any history of rheumatism.

Dr. HENRY GREEN said that the issue was how far syphilis was a cause of atheroma. He was not aware that it ever was.

Mr. MYERS replied that the patient had been treated for chancre without either mercury or iodide of potassium. There was no record of secondary symptoms, neither was any trace of iritis discovered. The man had never had rheumatism. He did not himself believe in the relation between disease of the aorta and syphilis which was urged by Dr. Aitken.

Dr. ROGERS believed he had been able to trace the connexion under discussion.

Dr. WHIPHAM mentioned the case of an infant which died the subject of inherited syphilis, and whose aorta presented extensive atheroma.

Mr. TIMOTHY HOLMES remarked that there must be some evidence of a cause before it can be accepted. This man had a history of having soft sores twice without mercury or iodide of potassium being given, and without secondary symptoms. It is excessively difficult to say what connexion there may be; but persons who have had syphilis have also been the victims of chronic abuse of alcohol. Alcohol is a far more likely cause of aneurism and atheroma than is syphilis.

Dr. LEARED referred to a case of aortic disease which he had brought forward several years ago in a man dying of tertiary syphilis.

In reply to a question put by Dr. Burney Yeo, Mr. MYERS said that careful examination of the other viscera revealed no traces of syphilis.

The PRESIDENT said that the connexion between the abuse of alcohol and atheroma was perfectly clear. On the other hand, patients might die of intense syphilis without any atheroma, or with extensive atheroma without syphilis. We must search elsewhere for the general causes of atheroma.

Mr. KNOWSLEY THORNTON exhibited a specimen of Ovarian Tumour affected by Secondary Cancer, taken from the body of a widow aged thirty-five, who had suffered for an uncertain length of time, and was tapped three times after coming under observation in June, 1873. The leading symptoms, in addition to the presence of an abdominal tumour, were excessive pain and emaciation. Tapping did not entirely remove the swelling even temporarily, and the fluid soon reaccumulated. Ovariotomy was not attempted. After death the anterior abdominal wall was found adherent to an ovarian cyst, the lower part of which was represented by a mass of cancer. The fundus uteri and the cellular tissue around the rectum were cancerous in part, and one nodule was found in the muscle of the abdominal wall. The question was, Where did the disease originate? Mr. Thornton believed that it had probably been in the tissue around the rectum.

Mr. ARNOTT suggested that the primary growth might have been in the uterus. He had seen cancer of both ovaries secondary to cancer of the fundus uteri, with evidence of infection by the Fallopian tubes. In these days we are not prepared to hear of cancer originating in a connective tissue. But degeneration in a carcinoma is insufficient evidence of its age.

Mr. HULKE asked whether the mass in the uterus was so near the cavity as to have probably originated in the mucosa, and whether this was so in Mr. Arnott's case.

Mr. ARNOTT believed it had probably so originated in his case.

Mr. THORNTON replied that the disease in his case was not likely to have begun in the uterus, which was the part least affected. The mucous membrane was little, if at all, invaded.

Mr. THORNTON also brought forward a specimen of Dermoid Ovarian Cyst. The tumour was removed by Mr. Spencer Wells from a girl aged eight, who came from California to be operated on. At the operation, a tumour was removed along with twenty ounces of fluid, and it was found that a dermoid cyst lay behind the serous one. The wall of the former presented at one part a projecting piece of cartilage, with bone, skin, and hairs. There were many smaller cysts in the ovary, lined with epithelium.

Mr. TIMOTHY HOLMES exhibited the Bladder of a man aged forty containing a very large Stone, which it had been found impossible to extract by the cutting operation. The finger passed into the wound could detect the bladder firmly embracing the calculus, which could not be moved. The patient died two days after. It was found that the stone weighed seven ounces and a half, and was composed of uric acid and oxalate of lime, with phosphatic deposits. The ureters were dilated to the size of the small intestine, and the secreting substance of the kidney was considerably absorbed. The main interest of the case was surgical.

Mr. GAY showed a Cyst as large as an infant's head, which he had removed, by operation, from the Axilla of a man. It had been growing for two years. It was chiefly remarkable for its large size. Its structure also was interesting, as bearing on its origin. It contained an opaque fluid, which was probably the remains of a chronic inflammatory product.

Dr. GOODHART had examined the tumour, and believed that it was a very rare specimen.

NEW INVENTIONS.

PATENT SAFETY SELF-REGISTERING THERMOMETER.

MR. CASELLA, of Holborn-bars, has succeeded in constructing a most useful modification of the clinical thermometer, the idea being to prevent the oft-recurring difficulty in clinical thermometers which renders them practically useless—viz., the escape of the index into the bulb, where, mixing with the bulk of the mercury, it is irrecoverably lost. The instrument is constructed in precisely the same way as the ordinary clinical thermometer, with this important exception—viz., that the capillary tube issuing from the bulb is gradually contracted for a distance of half an inch, and then suddenly expands into an oval chamber or trap, beyond which the tube is continued of the usual diameter to the extremity of the instrument. The thermometer supplied to us, which we have had in use and found most efficient, has, whether by accident or intent, a contraction in the tube both above and below the chamber or trap. This, without being a disadvantage, provides a still further security against the destruction of the index, for it is almost impossible to shake it even into the trap or what may be called a secondary bulb, much less into the all-engulfing bulb. Mr. Casella guarantees this instrument from becoming disarranged by any amount of violence, whether in the hands of the physician or the most inexperienced person. We can strongly recommend this thermometer as superior to any we have seen or used.

A MEMORIAL has been adopted by the St. George s Hanover-square Vestry, to the Home Secretary, praying that he would introduce a Bill into Parliament directing that the penalties imposed under the Food Adulteration Act should be paid to the vestries instead of to the police receiver. The vestry desires the co-operation of other metropolitan vestries, and has applied to them accordingly on the matter.

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OBITUARY.

WILLIAM VESALIUS PETTIGREW, M.D., F.R.C.S., Who died on the 13th inst., aged 58, was the second son of the well-known F. J. Pettigrew, F.R.C.S., F.R.S., etc., and was born in the house of the Medical Society of London, in Bolt-court, Fleet-street, of which his father was registrar. His grandfather was also in the medical profession, a Surgeon R.N., who had settled in practice in London. Dr. W. V. Pettigrew was educated at Westminster School, and proceeding to his medical studies under the direction of his father, he attended the Windmill-street School of Medicine and Charing-cross Hospital, of which his father was Surgeon. He passed the College examination in April, 1837, and then went to Glasgow, where early in 1839 he took the M.D. degree. Returning to London, he established himself in practice in Chelsea, and also soon became known as a teacher and lecturer in Anatomy and Physiology. His first regular employment in the medical schools in this capacity was at Grainger's School of Medicine in the Borough. Subsequently at the Hunterian School, and afterwards for many years, he was one of the lecturers at Lane's St. George's School of Medicine in Grosvenor-place, to the success and high reputation of which school his talents greatly contributed. In 1844 he was made honorary F.R.C.S. of London; he became a Fellow of the Royal Medical and Chirurgical Society and a Member of the Royal Institution, for which Societies he frequently lectured. As his practice increased he removed from King's-road, Chelsea, to Chester-street, Grosvenor-place, where for many years he enjoyed an extensive and lucrative connexion. In 1866 and 1867 his health painfully yielded, and compelled him to retire. Although subsequently somewhat restored, he has been obliged by continual increase of physical weakness to keep in irksome idleness a mind naturally most vivacious and active. An attack of bronchitis was the immediate cause of his death, which occurred at his residence, Colebrook Lodge, Upper Norwood. Dr. W. V. Pettigrew married first very early to a lady who died within a year, leaving a son; and secondly to Frances Mary, daughter of Thos. Moore, Esq., of 5, Dorset-square, who survives. He leaves also his second son (now in India) and three daughters. His first son died a few years since whilst a medical student.

MEDICAL NEWS.

ROYAL COLLEGE OF PHYSICIANS OF LONDON.—The following gentlemen were duly admitted Licentiates of the College on February 19:—

Bevan, John Paul, 39, Shardeloes-road, S.E.
Field, Ernest, Guy's Hospital, S.E.
Lane, Benjamin, 4th Regiment, Woolwich, S.E.
McKnight, George, Wellington, Shropshire.
Savage, James, Bridlington-quay, Hull.
Taylor, Christopher Musgrave, Wrawby, Brigg.
Wright, Frederick Henry, 39, Lorrimore-square, S.E.

APPOINTMENTS.

*** The Editor will thank gentlemen to forward to the Publishing-office, as early as possible, information as to any new Appointments that take place.

EWART, J. H., M.R.C.S., L.R.C.P. Lond.—Honorary Surgeon to St. Mary's Hospital for Women and Children, Manchester, *vice* Mr. G. W. Pettinger, promoted.

FIELD, GEORGE, M.R.C.S. Eng., L.S.A.—Aural Surgeon to St. Mary's Hospital.

JOSEPH, GEORGE WM., L.K.Q.C.P.I., L.M., M.R.C.S. Eng., L.S.A.—Resident Surgeon-Apothecary to the Warrington Dispensary and Hatton's Charity Hospital, *vice* Mr. F. Barton, M.R.C.S. Eng., L.S.A., resigned.

RAYNE, CHARLES A., M.B., B.S. Lond., M.R.C.S. Eng.—House-Physician at the Radcliffe Infirmary, Oxford.

SATCHELL, WALTER A., L.R.C.P. Edin., L.M., M.R.C.S. Eng., L.S.A.—Medical Officer for the Kew District of Richmond Union, *vice* W. J. Trentler, M.B., C.M., resigned.

WHERRY, GEORGE E., M.R.C.S.—House-Surgeon to Addenbrooke's Hospital, Cambridge.

SERGEANT, E., L.R.C.P. Lond., M.R.C.S., L.S.A.—Medical Officer of Health and Public Analyst to the Borough of Bolton.

BIRTHS.

BASTIAN.—On February 23, at 81, Avenue-road, Regent's-park, the wife of H. Charlton Bastian, M.D., F.R.S., of a son.

INGLIS.—On February 20, at Worcester, the wife of A. M. Inglis, M.D., M.R.C.S. Eng., of a son.

WINSLOW.—On February 13, at Brandenburgh House, Hammersmith, the wife of Henry F. Winslow, M.D., of a daughter.

MARRIAGE.

HAYWARD—CORPS.—On February 17, at Falmouth, Sidney Hayward, M.D., M.R.C.S. Eng., L.S.A., of Overton, Hants, to Jane Maria, daughter of the late John Corps, Esq., of the same place.

DEATHS.

CÆSAR, PRUDENTIA, widow of H. A. Cæsar, M.D., and daughter of the late R. Thompson, M.D., R.N., at Beaumont Lodge, Shirley, Hants, the residence of her son, on February 15, aged 59.

HEWETT, SARAH ELIZABETH, wife of Prescott Hewett, F.R.C.S., at 1, Chesterfield-street, Mayfair, on February 20.

JEPHSON, ANIE ELIZA, wife of Henry Jephson, M.D., J.P., daughter of the late Rev. James Geldart, LL.D., rector of Kirk Deighton, Wetherby, at Beech Lawn, Leamington, on February 18, aged 33.

KIDD, CHARLES, M.D., M.R.C.S. Eng., at 13, Westbourne-park-terrace, on February 18.

KILGOUR, ALEXANDER, M.D., at Loirston House, Kincardineshire, on February 19.

MAXWELL, JOHN NESBITT, M.D., F.R.C.S.I., son and last remaining member of the family of the late Robert Maxwell, Esq., of Clonleigh and Summerhill, Dublin, at his residence, Via Majenta, Florence, on February 14, aged 67.

NICHOLSON, CLARA, widow of the late Alexander J. Nicholson, M.D., of Dublin, and mother of the late General John Nicholson, at Lisburn, Ireland, on February 17, aged 85.

PARKER, STEPHEN JOHN PEACH, L.F.P.S. Glasg., M.R.C.S. Eng., L.S.A., at Hammersmith, on February 16, aged 64.

PRITCHARD, URBAN FLEETWOOD, infant son of Urban Pritchard, M.D., at 41, Guilford-street, Russell-square, on February 19, aged three weeks.

STOKES, HELENA AMY, wife of H. E. Stokes, Esq., Acting Secretary, Board of Revenue, Madras, and second daughter of Surgeon-General Samuel Currie, M.D., C.B., Hon. Physician to the Queen, at the Adyar, near Madras, on January 29, aged 22.

VACANCIES.

In the following list the nature of the office vacant, the qualifications required in the Candidate, the person to whom application should be made, and the day of election (as far as known) are stated in succession.

ALNWICK INFIRMARY.—House-Surgeon. Candidates must be duly qualified. Applications, with testimonials, to W. T. Hindmarsh, Esq., Honorary Secretary, on or before March 1.

AXMINSTER UNION.—Medical Officer and Public Vaccinator for the Lyme Regis District. Candidates must be duly qualified. Applications, with testimonials, to Mr. W. Forward, Union Office, Axminster, on or before March 4.

BATH EASTERN DISPENSARY.—Two Honorary Medical Officers. Testimonials to Francis Savage, Esq., Honorary Secretary, on or before March 2.

BERKS COUNTY ASYLUM, MOULSFORD, WALLINGFORD.—Assistant Medical Officer. Candidates must be duly qualified. Applications, with testimonials, to Dr. R. B. Gilland, Medical Superintendent.

BIGGLESWADE UNION.—Medical Officer of Health. Candidates must be legally qualified medical practitioners, and registered under the Medical Act of 1858. Applications, with testimonials, to Mr. T. S. Hooper, Clerk, on or before March 3.

BLOOMSBURY DISPENSARY, 62, GREAT RUSSELL-STREET.—Resident Medical Officer. Applications, with testimonials, to the Secretary, on or before March 16.

BRISTOL GENERAL HOSPITAL.—Assistant House-Surgeon. Candidates must be duly qualified. Applications, with testimonials, to the Secretary, on or before March 20.

CITY OF LONDON UNION.—District Medical Officer. Candidates must be duly qualified. Applications, with testimonials, to Mr. F. W. Crane, Clerk, 61, Bartholomew-close, on or before March 2.

EVELINA HOSPITAL FOR SICK CHILDREN, SOUTHWARK-BRIDGE-ROAD, S.E.—Physician. Candidates must be F. or M.R.C.P. Applications, with testimonials, to the Committee of Management, on or before February 28. Also vacancy for Surgeon for Out-Patients. Candidates must be F. or M.R.C.S. Applications, with testimonials, as above.

GENERAL HOSPITAL, NOTTINGHAM.—Physician. Candidates must be duly qualified. Applications, with testimonials, to the Chairman of the Qualification Committee, on or before March 10.

HOLBEACH UNION.—Medical Officer for the Sutton Bridge District. Applications, with testimonials, to the Clerk of the Union, on or before March 15.

HUDDERSFIELD INFIRMARY.—Physician. Particulars from the Honorary Secretary or House-Surgeon.

INVERNESS DISTRICT ASYLUM.—Assistant Medical Officer. Applications, with testimonials, to Dr. Aitken, Medical Superintendent, on or before March 2.

LEITH HOSPITAL.—Assistant-Surgeon. Applications, with testimonials, to Mr. Mann, 42, Bernard-street, Leith.

NARBERTH UNION.—Medical Officer. Candidates must be duly qualified. Applications, with testimonials, to Mr. John Thomas, Clerk, on or before March 21.

NORTH LONDON CONSUMPTION HOSPITAL, HAMPSTEAD.—Candidates must be F. or M.R.C.P. and graduates of a university (or qualify within twelve months). Applications, with testimonials, to the Secretary, Mr. W. Hornibrook, at the offices, 216, Tottenham Court-road, W., on or before April 15.

PRESTON AND COUNTY OF LANCASTER ROYAL INFIRMARY, PRESTON.—Junior House-Surgeon. Candidates must be duly qualified. Applications, with testimonials, to R. Blair, Esq., M.B., at the Infirmary.

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QUEEN'S HOSPITAL, BIRMINGHAM.—House-Physician, also House-Surgeon. Candidates for these appointments must be legally qualified medical practitioners and registered. Applications, with testimonials, to Mr. W. Young, Secretary, on before March 21.

ROYAL MATERNITY CHARITY, 31, FINSBURY-SQUARE, E.C.—Two Physician-Accoucheurs. Candidates must be F. or M.R.C.P. Lond. Applications, with testimonials, to the Secretary, on or before February 28.

TORBAY INFIRMARY AND DISPENSARY, TORQUAY.—House-Surgeon and Secretary. Candidates must be duly qualified. Applications, with testimonials, to the Secretary, on or before March 7.

UNION AND PAROCHIAL MEDICAL SERVICE.

*** The area of each district is stated in acres. The population is computed according to the census of 1871.

RESIGNATIONS.

Atcham Union.—Mr. C. H. C. Huddart has resigned the Alberbury District; area 16,488; population 1981; salary £30 per annum.

Bridgwater Union.—Mr. W. M. Silke has resigned the Eighth District; area 13,168; population 3228; salary £56 per annum.

APPOINTMENTS.

Bideford Union.—Joseph R. Dowman, M.R.C.S. Eng., L.S.A., to the Clovelly District.

County of Somerset.—Wm. Walter Stoddart, F.C.S., as Analyst.

Midhurst Union.—Samuel W. Hope, M.R.C.S., L.R.C.P., to the Tillington District.

Richmond Union.—Walter A. Satchell, L.R.C.P. Edin., M.R.C.S. Eng., to the Kew District.

THE Council of the Ontario College of Pharmacy have, by a unanimous vote, confirmed the Honorary Membership of the College on Dr. W. Handsel Griffiths, author of "Notes on the Pharmacopœial Preparations," "Posological Tables," etc.

THE Guardians of the Irvinestown and Donegal Unions have increased the salary of Dr. Saunderson as Medical Officer for the Clonelly and Pettigoe Dispensary Districts from £100 to £120 per annum.

MR. WILLIAM ALLARD, F.R.C.S. Eng., of Tewkesbury, has been presented with a silver salver weighing eighty ounces, a black marble timepiece, and a case of dessert knives and forks, and his wife with a massive gold bracelet. The salver bears the following inscription:—"Presented (together with a timepiece and other articles) to Mr. William Allard by a number of his friends, as a mark of their appreciation of his valuable public services during a period of eighteen years, and in recognition of his private worth. February 17, 1874." The presentation was made by the Rev. Canon Davies, at the Town Hall, in the presence of a number of the subscribers. Mr. Allard was for many years a member of the Town Council.

A SOCIETY has been established in connexion with the Dublin University Medical School for "affording its members the opportunity of discussing medical, surgical, and collateral subjects, and to encourage the practice of original research."

SMALL-POX, which was epidemic for several months in Greenock, has almost disappeared from that town.

THE Medical Officer of Health reported to the St. Martin's Vestry last week that during the past fortnight eleven deaths were registered in the parish. The mortality was unusually low for any period of the year, and especially so for the present one.

WESTMINSTER HOSPITAL.—At a meeting of the governors, on the 24th inst., Mr. James Keene, F.R.C.S., of Maddox-street, was unanimously elected Assistant-Surgeon to the Hospital.

PROFESSOR TRAUBE'S JUBILEE.—The occasion of forming the new Charité-Vereins, consisting of all the medical officers of the great Berlin Charité Hospital, was taken for giving Geh.-Med. Rath Professor Traube a jubilee banquet, on the occasion of his having completed his twenty-first year of service in that hospital. His clinical teaching there is, of course, of world-wide celebrity, and he, together with Professor Reinhardt and Virchow, founded the new Berlin School of Minute Pathological Anatomy. The dinner was largely attended, and the speech of Professor Virchow seems to have been one of extraordinary power, completely carrying the audience away with it.

THE MILK OF WOMAN AND OF THE BITCH.—At the recent Congress held at Marseilles for the improvement of the condition of infants, a curious fact stated by Dr. Bernard excited much attention. At Montbrun-les-Bains, in La Drome, where the inhabitants are all agricultural, the women are accustomed to continue suckling until the second or third year, and when during this period a woman having lost her own child is unable to obtain another suckling, she resorts to the use of puppies. This custom has led to a great degeneration of the canine race in that neighbourhood, the young dogs exhibiting all the signs of well-marked rickets. Setting out from the fact that a puppy rendered rickety by the use of woman's milk is rapidly cured when restored to its own mother, Dr. Bernard submitted a child, twenty-six months old, the subject of advanced rickets, to the use of the milk of a bitch, with the result of procuring rapid amendment. In support of this statement, M. Jacquème's comparative analysis of the milk of woman and the bitch, also presented to the Congress, may be cited. While the milk of woman contains in 1000 parts only 26·66 of butter, 39·24 of casein and extractive matters, and 1·38 of salts, that of the bitch contains 97·20 of butter, ·117 of casein and extractives, and 13·50 of salts. When this statement was made at the Académie de Médecine, Professor Depaul stated that many years ago he had attempted the suckling of some pups by a healthy woman, but owing to the diarrhœa and wasting which followed, cows' milk had to be substituted, and on this they thrived very well. So, also, in practice, he has observed that the puppies, so often used by women in France to draw out their nipples, become rapidly thin, some of them succumbing after from ten to twenty days. —*Bulletin de l'Académie*, February 17.

INJECTION OF CHLORAL IN TETANUS.—M. Bouillaud, on the part of M. Oré, a professor of the Bordeaux Medical School, related a case to the Académie des Sciences, February 16, in which chloral had been injected into the veins as a remedy in traumatic tetanus. A man after a wound of his finger became the subject of tetanus, in consequence of which his mouth became so closed that no remedy could be administered. M. Oré therefore threw an injection containing ten grammes of chloral into the veins, which produced peaceful sleep; and this was followed by a second and third injection, with the effect of obtaining a sleep of eight hours.—*L'Institut*, February 18. [The patient was going on well when the above statement was made, which might have been postponed until the issue of the case had been decided.]

THE LATE PROFESSOR MAX SCHULTZE, OF BONN.—This distinguished man was one of a family of professors, for his father, Geh.-Med. Rath Dr. Schultze, now ninety years old, was Professor of Anatomy at Greifswald, and his brother, Dr. B. Schultze, is Professor of Gynæcology at Jena. Prof. Max was only forty-eight when he died suddenly, according to different accounts, of heart disease or perforating ulcer of the stomach. He has been for fifteen years Professor of Anatomy and Histology at Bonn, and his classes were attended by students from all parts of Europe and the United States. A man of property, he had just finished the construction of a magnificent anatomical laboratory, which was opened just before his death. The *Archiv für Mikroskop. Anatomie*, which he set on foot some years since, has become one of the most indispensable books for advanced inquirers. His funeral was a public one, on a grand scale, the entire University and students attending, twelve of the latter to whom he had been most attached bearing the coffin from the church to the grave. The late Professor had twice refused to leave Bonn when invited to more lucrative, if not more eminent, posts at Leipzig and Strasburg. His death, and Professor Rindfleisch's acceptance of the call to Würzburg, have been heavy blows for Bonn University, which many of the students are leaving. It is said that Professor Waldeyer, of Strasburg, will be invited to fill the vacant chair.

THE NEW FRENCH MEDICAL FACULTIES.—It is said that the Parliamentary Committee has recommended only two additional—viz., Lyons and Bordeaux. The *Union Médicale* (February 17), while admitting the utility of creating several centres of medical education if the right to practise is made dependent on a central State examination, protests against the establishment of several medical faculties having the power of conferring degrees giving a right to practise. Not only would these act mischievously by lowering the standard of education, but there seems to be no call for them, as the number of students, as well as that of practitioners, is on the decline—the medical recruital, both in civil and military life, becoming more and more difficult. Medical studies have now become so long and laborious, the physical and chemical sciences being now far more than mere auxiliaries, and forming an important part in the preparation for examinations; and the student, after his laborious and costly career, finds, on getting into practice, that he has no effective protection from the encroachment of charlatans and parasites. It is said that in several

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provinces of France the religious bodies are so allowed to infringe on medical practice that regular practitioners are fast leaving them, not being able to make a living.

NOTES, QUERIES, AND REPLIES.

He that questioneth much shall learn much.—Bacon.

*** The *Alliance News* remarks that "now the *Medical Times and Gazette* has lost its late editor, Dr. Webb, that paper will turn to the advocacy of the temperance cause, in which Dr. Webb was by no means an enthusiast." The knowledge of our intentions shown by the *Alliance News* is almost as profound and correct as its knowledge of the late Dr. Webb. He was one of the most temperate men we have ever known; and we are not so intemperate as to advocate teetotalism.

Dr. C. O'Reilly, Hamilton, Ontario.—Letter, with enclosure, received.

Mr. Greenway, Plymouth.—We really cannot enter further into the matter in dispute.

P. P. C.—According to the third volume of the Census of England and Wales, more than 10,000,000, out of a population of less than 23,000,000, are under twenty years of age.

S. F., Portsmouth.—The *Westminster Review* for January last—"Medical Charity, its Extent and Abuses."

Iota.—Dr. Ogilvie is the President of the Aberdeen Microscopical Society.

M. B. E.—February 12, 1871.

Rusticus.—Dr. Alison's pithy remark on the benefit of vaccination was "that he who disputes it is equally unreasonable as he who opposes in like manner any proposition in Euclid."

A Country Practitioner.—Much valuable information upon the duties of a medical officer of health is given in a pamphlet entitled, "On the Work of a Medical Officer of Health, and How to do it," by Thomas J. Dyke, F.R.C.S. (Farrant and Frost, Merthyr Tydvil).

Mr. M., St. Bartholomew's.—Sir George Burrows published his Clinical Lectures on Medicine in the *Medical Times and Gazette.*

THE LATE DR. LIVINGSTONE.

The following letter from the large collection of autographs in the possession of Mr. T. M. Stone, will, no doubt, be read with some interest at the present moment:—

"Cape Town, 29th March, 1841.

"Sir,—I take the liberty to inform you that yesterday I presented to Colonel Bell, the honourable Secretary of the Colony, your letter respecting the boxes sent out by the College for facilitating the collection of anatomical preparations, and to-day I received from him the following note:—

"'Colonel Bell begs to inform Mr. Livingstone, in reply to his note of yesterday, that there are at least two boxes at the Government House which answer the description given by Professor Owen, being addressed to Sir Benjamin D'Urban, and marked "*Glass.*" We recommend Mr. Livingstone to make application on the subject to His Excellency's Private Secretary at Government House, presenting at the same time the Professor's letter, which is herewith enclosed for that purpose.'

"I understand there are three of them, and as far as replenishing them is concerned, nothing has been done. This is really too bad, but what else can we expect from those who seem to make money their chief end of pursuit? Their leisure moments are directed to something very different from lending a hand to the cause of science.

"I have no doubt but that I shall be put in possession of the 'cases'; and as the mail for England is made up to night, I lose no time in letting you know my success, and also the prospect of ultimate success in obtaining what you wish. I am informed by those who have travelled extensively through the colony, that it is by no means uncommon for the 'bushmen' to bring the eggs of ostriches for sale to the waggons of travellers, and these frequently in a state of incubation, and I likewise observe great quantities of the shells for sale in Cape Town, these being objects of curiosity for sailors, etc., etc.

"The Cape ant-eater is reported to be delicious as food, and no doubt is searched after by the natives on this account; so, I suppose, by offering a larger price than usual for the former, and placing a sum on the whole body or only the uteri of the latter, I may soon succeed in obtaining all we require.

"You may rely upon me that I shall lose no time unnecessarily, but will make every effort to effect our purpose that may be consistent with the chief object of my mission to this country. Scientific pursuits are not the end for which I have come hither, but the evangelisation and civilisation of the people; and to this I hope to devote most of my energies.

"While, however, I make the latter my chief object, I mean to attend a little to the former as a means of relaxation; and if now or at any future time you should wish anything that can be obtained in my part of the country, please do not hesitate to make what use you choose of my services. A note addressed 'Rev. D. Livingstone, Bichnana Country, care of Rev. A. Robson, Port Elizabeth, Algoa Bay, S.A.,' and handed in to the Mission House, Blomfield-street, to any of the secretaries, will in due time reach me.

"I have been longer in my passage hither than I anticipated, the delay having been caused by the splitting of one of our masts, which obliged us to put into Rio de Janeiro to refit. The same accident detains me here, and if we go on at this slow rate, I do not see that we can reach Lattakoo in much less than four months from this date. The length of time which must elapse before I can transmit the boxes down to the coast is rather discouraging, but I earnestly hope to get one of them replenished before I pass the boundary of the colony, in which case, I suppose, it will reach you before the termination of the present year. If, however, it is later, do not suppose that I have forgotten my intentions; but believe me ever yours, with much respect, "DAVID LIVINGSTONE."

F.R.C.S., Redruth.—The gentleman mentioned is one of the Surgeons to King's College Hospital. There are rather more than 1300 Fellows of the College. The election, of which you will receive timely notice from the Secretary, will take place in July.

The New Baronet.—Dr. George Burrows received his professional education at St. Bartholomew's Hospital. He is a B.A. and late Fellow of Caius College, Cambridge, where he graduated M.D.; he is a D.C.L. Oxon., Physician-in-Ordinary to H.M. the Queen, President of the Royal College of Physicians, a member of the Senate of the University of London, Consulting Physician to St. Bartholomew's Hospital, late President of several of the medical societies, a Fellow of the Royal and other societies at home and abroad. He married a daughter of the celebrated John Abernethy. Amongst his contributions to the advancement of medical science are "Disorders of the Cerebral Circulation"; articles in the "Library of Medicine," on Hæmorrhage, Scartina, Rubeola; papers in the *Royal Medical and Chirurgical Transactions.* His Clinical Lectures on Medicine were published in this journal. Sir George Burrows resides in Cavendish-square.

Caffre Doctors.—When Kreli's favourite son died in 1855, great consternation prevailed among the whole tribe, and induced that chief to put his principal witch doctor to death.

An Aural Surgeon.—You will find Sir William Wilde's letter on Glycerine in reply to the *Lancet's* strictures in vol. xxviii., page 538 *et seq.*, of the *Medical Times and Gazette.*

M. H., Berners-street.—We are unable to say whether it is the same individual, but one Henry Hamilton *alias* Scott, of King William-street, Strand, was tried for administering drugs to a young woman to procure abortion (see the *Medical Times and Gazette* for September 23, 1858, page 337).

Archæologist, Downend.—The following is the epitaph in Folkestone Church, from which you may glean the desired information:—

"A.D. 1605, Nov. 8. Dyed in ye 50 yere of her age, Joan wife of Thomas Harvey: Mother of 7 sones and 2 daughters. A godly harmles woman. A chaste lovinge wife. A charitable quiet neighbour. A cõfortable friendly matron. A prudent diligent hoswife. A careful kindehearted mother. Deere to her husband. Reverensed of her children. Beloved of her neighbours. Elected of God. Whose soul rest in heaven. Her body in this grave. To her a happy advantage. To hers an unhappy loss.

"William Harvey, Doctor in Physic, who found out the circulation of Blood, gave to the Town of Folkestone (where he was born) Two hundred Pounds, which was part of the money laid out in Purchase of the Premises, and in building the said School and Tan-house. William Harvey, M.D., was eldest son of Thomas Harvey, born in Folkestone, April, 1578.—Entered Canterbury School, 1588.—Admitted to Gonville and Caius Coll., Cambridge, 1593.—To the University of Padua, 1599.—Took Degree there, 1602. Ditto at Cambridge; and settled in London, 1602. Candidate of the College of Physicians, 1604. Physician to St. Bartholomew's Hospital, 1605. Reader of Anatomy and Surgery to the College of Physicians, 1615. Elect of the said College, 1627. Published the Circulation of the Blood, 1628. Doctor of Physic at Oxford, 1642. Warden of Morton College, 1645. Published exercises in the generation of Animals, 1651. His Statue erected in the Physician's Hall, 1652. Elected President of the College of Physicians, which he declined, 1654. Gave his estate of £68 per annum to the said College, 1656. Died 30 June, and buried at Hampstead in Essex, 1658."

Teleologist.—The doctrine of design stands unshaken; but for all that it is very possible that a great many well-meaning persons may have deceived themselves in the notion of the uses and design of various parts of the animal structures.

UNIVERSITY MEDICAL EDUCATION.

TO THE EDITOR OF THE MEDICAL TIMES AND GAZETTE.

SIR,—As a medical university, Cambridge has now far outstripped Oxford. The cause of this is generally admitted to be the existence of its great medical school. There are, however, no qualifying lecturers on surgery and half a dozen other subjects. While the students of all other seminaries of learning make periodical raids on the wealth and honours of the great English universities, it must be said of the medicals, *non sunt.* Allow me to point out how this is brought about by the want of such lecturers. Let us suppose a second, third, or even a fourth year's student whose ambition has grown with success at his school. He is perfectly willing to study for three years longer, especially as he could take a six weeks' course on the Continent every summer. Beyond what is to be got in the physiological and pathological laboratories, he wants no addition to the scientific knowledge which can gain him a scholarship. Suppose he gets the scholarship, he will find that, except anatomy, there is nothing to count for his F.R.C.S. or M.R.C.P. As to the probable objections to the establishment of such lectures, I answer—first, a large hospital is a very doubtful advantage unless to a very large school; secondly, student-specialists are not the most desirable of an undesirable race; thirdly, dispensary work and the teaching of practical pharmacy, practical midwifery, etc., as usually taught at medical schools, are simply farcical,—a week or two with an obliging house-surgeon or union doctor in a country town is infinitely better. Your journal, which pays such attention to students' affairs, may perhaps insert this, and oblige Yours, &c., AN AMBITIOUS STUDENT.

[Ambitious of medical skill and of liberal culture, I pray you observe.]

COMMUNICATIONS have been received from—

Dr. C. A. RAYNER, Oxford; Dr. W. H. DAVIS, Tean; THE REGISTRAR OF THE ROYAL COLLEGE OF PHYSICIANS, London; Mr. LAMBTON YOUNG, London; Mr. HENRY SEWILL, London; THE SECRETARY OF THE LOCAL GOVERNMENT BOARD; Mr. GORDON HILLS, Upper Norwood; The Rev. W. HUME, Rothery, Sudbury; Mr. J. M. MORRIS, London; Mr. F. F. BUCKLE, London; Dr. SERGEANT, Bolton; Mr. C. S. JEAFFRESON, Newcastle-on-Tyne; Dr. J. ROGERS, London; Surgeon-Major HOGG,

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India; The Honorary Secretaries of the Manchester and Salford Sanitary Association; Dr. A. G. Miller, Edinburgh; Mr. Walter W. Reeves, London; Dr. G. W. Joseph, Liverpool; Dr. Althaus, London; Mr. F. Barlow, Cambridge; Mr. G. Field, London; Dr. J. H. Ewart, Manchester; Dr. W. A. Satchell, Kew; Dr. Murray; Mr. J. Chatto, London; Dr. W. Bevan Lewis, South Wales; Dr. W. B. E. Smart; Dr. J. Russell, Birmingham; Captain Burgess, London; Dr. Handsel Griffiths, Dublin; Mr. Eastes, London; Professor Laycock, Edinburgh.

PERIODICALS AND NEWSPAPERS RECEIVED—

Lancet—British Medical Journal—London Medical Record—Nature—Pharmaceutical Journal—Medical Press and Circular—Lincoln Gazette—Gazette des Hôpitaux—La Tribune Médicale—Berliner Klinische Wochenschrift—La France Médicale—Allgemeine Wiener Medizinische Zeitung—Carlisle Express and Examiner—La Gazette Médicale—Le Progrès Médical—Gazette Hebdomadaire—Le Mouvement Médicale—Transactions of the Odontological Society, vol. vi., No. 3—Monthly Report of the Health and Meteorology of the Parish of St. Marylebone, by J. Whitmore, M.D., Medical Officer of Health—Waterford News—Canada Medical Record—O Correio Medico de Lisboa—Canada Medical and Surgical Journal—Leisure Hour—Sunday at Home—Journal de Médecine et de Chirurgie Pratiques.

BOOKS RECEIVED—

Bucknill and Tuke's Psychological Medicine, third edition—Stokes on Continued Fevers—Dunglison's Dictionary of Medical Science—Galvano-Therapeutics, a revised reprint of a Report made to the Illinois State Medical Society—Cockle's Oration on the occasion of the Centenary of the Medical Society of London—Proceedings of the Dublin Obstetrical Society, 1872-73—The Birth of Chemistry, by G. S. Rodwell.

APPOINTMENTS FOR THE WEEK.

February 28. *Saturday* (*this day*).

Operations at St. Bartholomew's, 1½ p.m.; King's College, 2 p.m.; Charing-cross, 2 p.m.; Royal Free, 9 a.m. and 2 p.m.; Hospital for Women, 9½ a.m.; Royal London Ophthalmic, 11 a.m.; Royal Westminster Ophthalmic, 1½ p.m.; St. Thomas's, 9½ a.m.

Royal Institution, 3 p.m. Mr. R. Bosworth Smith, "On Mohammed and Mohammedanism."

March 2. *Monday*.

Operations at the Metropolitan Free, 2 p.m.; St. Mark's Hospital for Diseases of the Rectum, 2 p.m.; St. Peter's Hospital for Stone, 3 p.m.; Royal London Ophthalmic, 11 a.m.; Royal Westminster Ophthalmic, 1½ p.m.

Medical Society of London, 7 p.m. General Meeting for the Election of Officers and Council. Clinical Evening. Mr. Francis Mason, "Nasal Polypi." Mr. Arthur E. Durham, "Some Cases of Foreign Bodies removed from the Urethra." And other communications, from Dr. F. T. Roberts, Mr. Victor de Méric, Mr. Henry Smith, and Mr. Royes Bell.

Odontological Society, 8 p.m. Casual Communications.. President's Address. Conversazione.

Royal College of Surgeons of England, 4 p.m. Mr. W. K. Parker's Lecture on "The Structure and Development of the Vertebral Skull."

Royal Medical and Chirurgical Society, 8 p.m. Annual Meeting and Address of the President (Dr. C. J. B. Williams).

3. *Tuesday*.

Operations at Guy's, 1½ p.m.; Westminster, 2 p.m.; National Orthopædic, Great Portland-street, 2 p.m.; Royal London Ophthalmic, 11 a.m.; Royal Westminster Ophthalmic, 1½ p.m.; West London, 3 p.m.

Harveian Society, 8 p.m. Extraordinary Meeting for Legislation, etc.

London Anthropological Society, 8 p.m. Meeting.

Pathological Society, 8 p.m. Mr. De Morgan will open a Discussion on Cancer.

4. *Wednesday*.

Operations at University College, 2 p.m.; St. Mary's, 1½ p.m.; Middlesex, 1 p.m.; London, 2 p.m.; St. Bartholomew's, 1½ p.m.; Great Northern, 2 p.m.; St. Thomas's, 1½ p.m.; Samaritan, 2½ p.m.; King's College (by Mr. Wood), 2 p.m.; Royal London Ophthalmic, 11 a.m.; Royal Westminster Ophthalmic, 1½ p.m.

Obstetrical Society, 8 p.m. Resolution concerning the Admission of Women. Dr. Wiltshire will show a new guarded Perforator. Discussion on Dr. Playfair's paper "On Puerperal Thrombosis." Dr. Copeman (of Norwich), "On Consultation Midwifery in Private Practice." And other communications.

Royal College of Physicians, 5 p.m. Goulstonian Lectures—Dr. Payne, "On the Origin and Relations of New Growths."

Royal College of Surgeons of England, 4 p.m. Mr. W. K. Parker's Lecture on "The Structure and Development of the Vertebral Skull."

Royal Microscopical Society, 8 p.m. Mr. Alfred Sanders, "Contribution towards a knowledge of Appendicularia."

5. *Thursday*.

Operations at St. George's, 1 p.m.; Central London Ophthalmic, 1 p.m.; Royal Orthopædic, 2 p.m.; University College, 2 p.m.; Royal London Ophthalmic, 11 a.m.; Royal Westminster Ophthalmic, 1½ p.m.

Harveian Society, (Meeting of Council, 7½ p.m.), 8 p.m. Dr. Farquharson, "On the Effects of continued Physical Exertion of the Heart and Large Vessels."

6. *Friday*.

Operations at Central London Ophthalmic, 2 p.m.; Royal London Ophthalmic, 11 a.m.; South London Ophthalmic, 2 p.m.; Royal Westminster Ophthalmic, 1½ p.m.; St. George's (ophthalmic operations), 1½ p.m.

Royal College of Physicians, 5 p.m. Goulstonian Lectures—Dr. Payne, "On the Origin and Relations of New Growths."

Royal College of Surgeons of England, 4 p.m. Mr. W. K. Parker's Lecture on "The Structure and Development of the Vertebral Skull."

VITAL STATISTICS OF LONDON.

Week ending Saturday, February 21.

BIRTHS.

Births of Boys, 1232; Girls, 1244; Total, 2476.
Average of 10 corresponding years 1864-73, 2289·5.

DEATHS.

	Males.	Females.	Total.
Deaths during the week	830	786	1616
Average of the ten years 1864-73	768·0	730·6	1498·6
Average corrected to increased population	...	...	1648
Deaths of people aged 80 and upwards	...	...	72

DEATHS IN SUB-DISTRICTS FROM EPIDEMICS.

	Population, 1871.	Small-pox.	Measles.	Scarlet Fever.	Diphtheria.	Whooping-cough.	Typhus.	Enteric (or Typhoid) Fever.	Simple continued Fever.	Diarrhœa.
West	561359	...	11	...	2	3	1	1	1	2
North... ...	751729	2	12	3	...	13	3	7	1	2
Central ...	334369	...	1	4	...	7	...	2	1	...
East	639111	...	11	5	1	9	...	5	2	...
South... ...	967692	...	16	4	2	18	3	4	2	7
Total	3254260	2	51	16	5	50	7	19	7	11

METEOROLOGY.

From Observations at the Greenwich Observatory.

Mean height of barometer	29·573 in.
Mean temperature	40·0°
Highest point of thermometer	52·9°
Lowest point of thermometer	27·3°
Mean dew-point temperature	35·8°
General direction of wind	Variable
Whole amount of rain in the week	0·15 in.

BIRTHS and DEATHS Registered and METEOROLOGY during the Week ending Saturday, February 21, 1874, in the following large Towns:—

Boroughs, etc. (Municipal boundaries for all except London.)	Estimated Population to middle of the year 1874.*	Persons to an Acre. (1874.)	Births Registered during the week ending Feb. 21.	Deaths Registered during the week ending Feb. 21.	Temperature of Air (Fahr.) Highest during the Week.	Lowest during the Week.	Weekly Mean of Mean Daily Values.	Temp. of Air (Cent.) Weekly Mean of Mean Daily Values.	Rain Fall. In Inches.	In Centimetres.
London	3400701	45·1	2476	1616	52·9	27·3	40·0	4·44	0·15	0·38
Portsmouth ...	120436	26·8	108	61	53·2	26·3	42·8	6·00	0·33	0·84
Norwich	82257	11·0	53	46	50·5	26·0	38·8	3·77	0·12	0·30
Bristol	192889	43·3	153	101	...	...	...	...	...	...
Wolverhampton ...	70896	20·9	62	36	55·4	28·6	41·3	5·17	0·70	1·78
Birmingham ...	360892	43·0	290	213	52·6	26·0	41·0	5·00	1·19	3·02
Leicester	106202	33·2	82	61	51·7	28·0	40·8	4·88	0·53	1·35
Nottingham ...	90894	45·5	72	41	52·6	23·1	39·4	4·11	0·72	1·83
Liverpool	510640	98·0	390	324	51·2	30·2	40·3	4·61	0·81	2·06
Manchester ...	355339	82·8	249	260	53·5	29·0	40·4	4·66	0·49	1·24
Salford	133068	25·7	118	77	53·0	28·9	41·1	5·06	0·48	1·22
Oldham	86281	18·5	58	48	47·5	...	...	...	0·59	1·50
Bradford	163056	22·6	129	97	51·0	26·8	39·6	4·22	0·17	0·43
Leeds	278798	12·9	305	166	52·0	28·0	40·7	4·83	0·21	0·53
Sheffield	261029	13·3	204	162	51·0	26·0	40·7	4·83	0·21	0·53
Hull	130996	36·0	109	69	51·0	23·0	39·2	4·06	0·10	0·25
Sunderland ...	104378	31·6	103	47	...	...	...	...	...	...
Newcastle-on-Tyne	135437	25·2	110	71	50·0	28·0	40·0	4·44	0·09	0·23
Edinburgh	211691	47·8	124	107	...	...	...	...	...	...
Glasgow	508109	100·4	377	300	48·2	29·8	40·2	4·55	0·30	0·76
Dublin	314666	31·3	186	166	53·3	30·0	41·6	5·33	0·28	0·71
Total of 21 Towns in United Kingdm	7618655	36·6	5758	4069	55·4	23·0	40·5	4·72	0·42	1·07

At the Royal Observatory, Greenwich, the mean reading of the barometer last week was 29·57 in. The lowest was 29·09 in. on Tuesday morning, and the higest 30·06 in. on Friday morning.

* The figures for the English and Scottish towns are the numbers enumerated in April, 1871, raised to the middle of 1874 by the addition of three years and a quarter's increase, calculated on the rate which prevailed between 1861 and 1871. The population of Dublin is taken as stationary at the number enumerated in April, 1871.

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ADDRESS INTRODUCTORY
TO A
DEBATE ON THE SUBJECT OF CANCER,
DELIVERED BEFORE THE PATHOLOGICAL SOCIETY,
ON TUESDAY, MARCH 3,

By CAMPBELL DE MORGAN, F.R.S.,
Surgeon to the Middlesex Hospital, etc.

IT was with a feeling of great reluctance that, when I first received the invitation which you, Sir, and the Council of the Society did me the honour to make, I undertook to open a discussion on cancer. I now regret that I did not leave this work to other hands; for, on reviewing the subject, I find that I can do little more than repeat opinions and arguments and surmises which are already familiar enough to members of this Society. It would, I think, have been better had the opening of the discussion been entrusted to someone out of the many who have been occupying new ground in their investigations on cancer.

The feeling, too, presses on me, that in all that relates to the nature and cause of cancer we want sufficient and accurate data on which to base our arguments. Experiment fails us; and we know nothing of the disease in its earliest stages.

Again, I felt and feel the difficulty of condensing within a reasonable compass the questions which I would submit to your consideration. It is, however, a matter of satisfaction to me that, imperfectly as I may perform my task, the Society will have the benefit of a discussion on the subject of cancer by others who have given deep attention to it.

But the subject of cancer is a wide one—far too wide to be embraced within the limits I would assign to myself; and I propose to confine myself to the question—a sufficiently large one in itself—"What are the relations of cancer to the organism, whether in its natural or its morbid condition?" Interesting, then, as is the search into the histological characters of cancer, and their likeness or unlikeness to those found in other tumours, I propose to exclude this part of the subject. Nor do I know that for our present purpose it signifies whether cancer be a development of epithelium or of connective issue. It is of more consequence to determine the points of contact and divergence between cancer and other tumours in respect to their behaviour as living growths, and between these generally and the normal structures of the body. Nor do I propose to touch at all on the subject of the treatment of cancer; this would lead far beyond the limits which must be imposed on our discussion. I may state, also, that I have omitted all reference to names. I give my own notions, or those I have adopted from others; but I do not wish to make myself appear as tilting against observers whose opinions are more entitled to respect, perhaps, than my own.

It will be well, before considering the nature of the disease, to define what I mean by cancer. I should say that it is a malignant growth consisting of a delicate fibroid stroma, containing within its meshes aggregated but not coherent cell-elements—cells, nuclei, or granules,—generally ununiform, though often similar to natural cell-elements. By "malignant" I mean that which tends to continued spread and multiplication, irrespective of the tissue invaded,—to progressive ulceration and ultimate poisoning and exhaustion of the system. These definitions are imperfect. Cancer is not of necessity malignant; for it will sometimes retrograde, without showing any of the signs which we attach to malignancy. On the other hand, tumours which we usually consider innocent show sometimes the characters of malignancy. Under no circumstances would I limit the term "malignant" to cancer. Sarcoma, myxoma, and other forms of tumour, are often as malignant as cancer, in some forms perhaps more so.

Between cancer and other forms of tumour the main, or one main, difference is, that its component cells are free, and that they do not present a uniform type. Practically, I may observe that I agree with those who would regard any infecting growth as a cancer; and I surely believe that whatever argument applies to the subject of the origin of cancer, applies equally to that regarding the origin of any infecting tumour, perhaps of any true tumour, be its nature what it may. But I believe, also, that structural peculiarity is a main factor in that destructiveness which so specially characterises cancer; and in the present argument I would limit the term "cancer" to those forms of disease which are specialised as medullary cancer, scirrhus, epithelioma, and rodent cancer. I cannot see any reason for dissociating epithelioma from cancer.

Let me say, too, that when I speak of the origin of cancer I speak only of its place of origin, whether in tissue or blood or elsewhere; not of the conditions which determine its special form of development. These conditions we may be prepared to reason on when we have found out why one atom in the germinal membrane becomes muscle, another bone, another brain. I cannot help thinking that whatever determines the special forms of development of natural structure is in operation in the development of what we call morbid growths.

The views which have been entertained as to the origin of cancer are various. We may, I think, embrace them under the following heads:—

1. That a cancer-tumour is the expression of a specific blood condition; standing in the relation to this blood condition of a secretion to its gland.

2. That a morbid material is present in the blood, which, coming into relation with an appropriate tissue, enters into combination with and causes the growth of the tumour.

3. That the disease has its origin in the constitution at large, the tumour being only the local manifestation.

4. That the disease is in its origin purely local.

5. That, though local in development, there are general or constitutional conditions favouring its occurrence.

Of these, the first three may be regarded as the prevalent opinions of surgeons.

As I shall have to use the term constitutional as distinguished from local, it will be well to define my meaning. But this it is not easy to do clearly. The constitution is the man, all that gives him his individuality. In that sense, what we should in ordinary language call a purely local affection is really constitutional—a common lipoma, for example. But that is not the sense in which the term is used in this connexion. What is meant here is an all-pervading condition which will sooner or later find its local expression in altered nutrition, in new growth, etc., which will, in their turn, be evidences of the constitutional state. All would admit a practical difference between clubbed fingers and fatty tumours.

I have omitted "parasitism" from my list of assigned causation, as I suppose no one would now maintain that the cancer elements are in the first instance altogether alien to the body, as they should be to justify the use of the term. That in its progress malignant disease resembles parasitic growth may be fully admitted.

There are strong grounds for regarding cancer as something more than a local disease. The all but certainty of its recurrence, remove it as we will; its heritability; its frequent association with other forms of irregular growth; its often rapid diffusion; its power of infecting the system,—all, in fact, that we see in the life of cancer, naturally lead to a belief that the disease must from the first be more than a mere local tissue-change. And in one sense, and to a certain extent, I must admit that this belief is well founded.

I have mentioned hereditariness as one of the grounds for regarding cancer as not a mere local disease. I believe that cancer is more frequently inherited than is generally admitted. We find the proofs of inheritance quite often enough to allow us to reckon this as one of its factors. In a large number of cases, moreover, in which no proof can be found of the existence of the disease in a progenitor, we can trace it in collaterals; and it seems to me reasonable to conclude that in such instances, though the common parent may not have lived long enough to develope the disease, it was present potentially. Nor is it contrary to reason to conclude that the constitutional disposition, whatever that may be, is often present without the disease becoming developed. This must be the case where a disease or peculiarity has skipped one or more generations. The peculiarity of the grandfather may reappear in the grandson, though the father may not show it; yet the father must have something in him which he can transmit, though it never be seen in himself.

I may pass now to the consideration of the view which I would maintain—that, though local in its origin, there is in some, possibly in all, cases a predisposition to the disease, which may, possibly, be distributed through the system, but which more probably has its seat in some among the tissues of the body. I would question, therefore, the evidence of there being any special disease in the blood which either al

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produces cancer or co-operates with tissues specially fitted for the development of the disease.

Let me mention here that I doubt the existence of cases of simultaneous outbreak of primary cancer. Now and then, but rarely, more than one primary cancer may form, but at different periods of time.

Before giving my reasons for attributing a local origin to cancer, it may be well to state the difficulties which lie in the way of my reception of the blood hypothesis. These are:—1. That all the facts in the history of a cancer can be explained without resorting to it. 2. That there are some facts which militate against it. 3. That, if we receive it, we must admit either that the same blood-poison aids in the formation of simple tumours or that each tumour has its own special poison.

I will take first the facts which appear to me to militate against the blood hypothesis. And I now speak of the blood as a whole; I shall presently refer to the possible influence of the white blood-corpuscles.

Now, supposing that the blood were a poison-holding fluid, we should expect, inasmuch as the poison must be present before the tumour which it aids in producing appears, that there would be some previous indication of such diseased blood state. But if there be one thing more noticeable than another in the early history of the majority of cases of cancer, it is the wonderful health enjoyed by its victims. Is it not the common story—"I did not think there could be anything in the lump, because I was feeling so particularly well"? Generally, our patients have the build which would point to long life, and come of long-lived families. This is by no means an invariable rule. Many cancer patients are, and always have been, delicate, and come of consumptive families; but they do not become more delicate—indeed, they often improve in health before the cancer is discovered. We should expect an opposite condition were the blood the seat of disease.

Again: a growing cancer is removed, and the disease may never return, the patient remaining in perfectly good health. What are we to assume here if we adopt the doctrine of blood disease? Is it that, though the cancer was growing, the removal took place at the moment when the blood-poison had all been eliminated? or that the poison remained in the blood, but that the only tissue in a fit state to co-operate with it in the formation of cancer had been removed, and hence no fresh cancer matter appeared? Either solution is difficult of acceptance. It is difficult to understand that though the blood must at first be in a diseased state, yet that a cancer, when it has formed, may grow and spread, though the blood have returned to its natural healthy condition. On the other hand, it is difficult to understand that a patient may remain free from local disease altogether, though the essence of the disease remain in the blood. The cases are rare in which cancer has been removed once and for ever by operation; but those in which it has remained undeveloped for years after operation are by no means uncommon, and the same remarks apply equally to them.

There is nothing which seems to contraindicate the presence of a blood-poison in cancer more than the well-known fact that the disease, after operation, rarely returns in any of the ordinary seats of election. Scirrhus of the breast, for example, while it returns constantly in the skin, in the connective tissue, in the lymphatic glands, and in muscle, seldom returns in the opposite breast. This is as true of cases in which there has been a long immunity after operation, as of those in which the disease returns rapidly. Were the disease seated in the blood, should we not probably find recurrence in those organs which we recognise as the ordinary seats of primary cancer? The same remark applies to medullary cancer of the testicle, to epithelioma of the lip or tongue, and to disease of symmetrical parts generally. Surely, as more than half of all external cancers are seated in the breast, we should expect to find the second breast more frequently the seat of disease if the blood-condition were a determining cause.

Another objection is, that while cancer is growing and infecting the neighbouring tissues, or even causing the cancerous cachexia, injuries inflicted on other parts of the body may—indeed, usually do—run their ordinary course; wounds will heal and repair go on just as though the blood were in the purest condition. It may be said that the cancer-poison is being eliminated by the tumour, but new growths will spring up elsewhere while healthy action is going on in the wound.

While, then, some of those characters which are usually present in blood diseases are wanting in cancer, we do not meet in the latter with any which specially distinguish blood disease. I propose further on to endeavour to show that, whatever there may be in common between cancer and blood diseases will be found between these and most forms of tumour.

The reasons which make us hesitate to receive the hypothesis of the blood as a circulating fluid being the seat of a poison may be brought against the view that the poison resides in the solid elements, the white corpuscles, or that they have any special influence in determining the growth of cancer.

Whether the white corpuscles form or take part in the formation of the cell-structure of cancer is a point on which I shall not enter. We know that they pass out freely into the tissues, and that they probably perform some important part in nutrition. But it is difficult to conceive that each white blood-cell has a special property which fits it for some special work: that one belongs to muscle, another to brain, another to cancer-tumour. Yet, on the supposition that the white cells possess peculiar properties in reference to cancer, we must either admit this, or we must conclude that every cell is a conveyer of cancer influence—a view more difficult of acceptance than that under which the poison is supposed to be distributed through the fluid blood.

Surely the simpler view is, that each tissue, each active element of that tissue, has its own vital property; and that the blood, a common fluid, is distributed to all alike, each taking and appropriating what it wants. Of course it will be evident that impairment of the nutrient fluid will cause an unhealthy state of the tissue to be nourished; but is it not also the case that if the tissue be impaired the purest blood will fail to induce healthy nutrition? What else is the meaning of the degeneration of muscle from disuse? The pure blood is brought to it, but it will not thrive. The same is seen in the vegetable kingdom. The branch of a healthy plant trained in the dark will be sickly, and aphides and parasitic growths will abound in it. The sap, which rises freely and healthily to other parts of the plant, is not taken up and utilised by the sickly branch. I cannot help here referring to those strange phenomena observed by Dr. Brown-Séquard in guinea-pigs with partially divided spinal cords. As is well known, they become epileptic, the fits occurring, however, only when a small area of skin near the angle of the jaw is pinched. But the point to which I would draw attention is this: that the area of special sensibility is also the area of some obscure change which seems to render the part acceptable to lice, for on this space, somewhat larger than a shilling, they cluster in remarkable abundance. There is no perceptible change in the skin or the hair; the temperature is not materially altered; the blood brought to the part is the common blood; there may, perhaps, be a change in secretion. Let us pass to a simple tumour—a fatty tumour or a wart. Here, in the one case, we have a common blood circulating through all the fat in the body; but in one part there forms a separate overgrowth, due, surely, to some nutritive or formative change in the part. So, in warts, the increased development of the cells of the rete mucosum must be due to the part, not to the blood. If the part is capable of initiating those changes which lead to tumour-formation, why assume that in tumours which show more characters of tissue-change there must be some additional agency in operation outside the tissue?

And this leads me to the question, Is there any essential difference between cancer and other malignant growths, or between these and any tumour whatever? I mean, of course, genetically; for structurally there will be differences in abundance, and in behaviour perhaps still more. But the acarus folliculorum and the trichina spiralis differ from one another more widely, though both are simple parasites. We may take a lipoma. We find that in the midst of the ordinary fat of the body a separate mass is developed, which continues to grow indefinitely, which may at last thin the skin and cause its ulceration. We find that the tendency to this form of tumour is sometimes hereditary; that sometimes there are two or many more; that sometimes they are recurrent. The tissue is of pure fat, and we cannot generally detect any difference between it and the ordinary fat in which it is embedded. But there must from the first have been some property in the tissue from which the fat was developed different from, and in excess of, what existed in the normal fat layer. Here the history of the fat tumour ends; nothing more comes of it. We recognise the fact that the more the structure of a tumour resembles a natural structure, the less is its power of doing harm. This is especially the case with fat-cells, which, when once formed, cease to perform any active function. But it may be said there is an essential difference between a cancer and

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a lipoma in regard to similarity to natural tissue. Histologically there is, but as to mode of genesis there need be none. Admit that the elements of any tissue may take on independent action, and no line can be drawn between the mode of origin of the simplest and the most malignant of tumours. We may take another tumour, enchondroma. Here, springing up usually, though not always, in a part of which cartilage forms, or has formed, one of the natural constituents, we find a tumour which may grow indefinitely, and which often remains, like a lipoma, fixed to its original seat of growth. The texture may be at first indistinguishable from pure cartilage. So far there is no material difference between the modes of growth in a lipoma and an enchondroma. But a cartilage tumour, having once formed, may go on to further changes. There may be from the first an indication of some difference from normal cartilage. Instead of remaining stationary as cartilage, it may go on to form bone, or may break down into cavities containing nuclear and fibrillated and jelly-like substance; and then we may have dissemination to any extent. The original tumour may have become converted into a cystic growth, more sarcomatous than enchondromatous in its character; but the secondary growths will often revert to cartilage structure, while sometimes they will appear as sarcoma. It is not difficult to understand why an enchondroma differs from a lipoma. The fat-cells of a lipoma have reached their full term of activity. Cartilage-cells are multiplying and active. In the disseminating tumours there is no cyst; their elements can become free and may get into the lymphatics or bloodvessels, and be transported to distant parts and grow there. We may have all varieties of activity of growth, from the nodule of cartilage which goes on to form a simple exostosis, to a structure in which the cells seem to be set free from all restraint as to number or form or change of character. In these latter cases we get into the region of malignancy; but who can draw a line separating a class which resemble lipomata in simplicity from those which are allied to cancer? We have no proof of the power of natural cartilage-cells to increase and multiply when detached from their natural position; but we have it in the case of the allied structure—bone. Here experiment has shown that the periosteal cells, if scraped from the inner surface of the membrane and embedded in muscle or connective tissue, will form bone-nodules. The experimentation is rough as compared with that which is worked out in the body in the case of disseminated cartilage or osteal growths. Once admit that the cartilage-cell-holding tissue can throw off the laws which regulate natural growth, and I do not see where or why it becomes necessary to invoke any other aid.

It is certainly impossible to say *why* one enchondroma should remain as pure cartilage, and another go on to softening and dissemination. It is, we know, the tendency of tumours to deviate from those fixed laws of growth which regulate the size and form of our natural structures. Even tumours most resembling natural organs show this. An adenoma of the breast, for example, may vary in character from a compact gland-like structure indistinguishable from that of a natural mammary gland to a soft flickering substance containing proliferating cysts and merging into a cystic sarcoma. Surely in such cases one can only recognise a disposition, more or less pronounced, to perverse development in an atom of natural tissue. No one would, I presume, consider a special quality of blood necessary to account for them. But the fat-tissue, or the cartilage, or the gland-like substance will grow alike indefinitely and irregularly, and their ultimate texture may present as many deviations from that of natural tissues as does their gross mass. And so with regard to sarcoma or fibroma in all their varieties: they do not differ more from forms seen at one time or another in natural development than do enchondroma or adenoma in their advanced stages. Many of these prove to be fearfully malignant; their elements will be carried away, and form new centres of growth, and destroy their possessors as surely as will scirrhus. But what line can be drawn between perverse local development and this development *plus* blood poison?

Can it be said that there is something in cancer which is not contained in those other forms of infecting disease which I have mentioned? Surely not; for though scirrhus may, as a rule, contaminate the system more certainly and thoroughly, yet as much cannot be said for epithelioma, and it does not apply at all to rodent cancer, which, according to all recent authorities, must be regarded as a modification of epithelioma. As we shall see, the more structural peculiarities will explain the differences in the degree of malignancy found in the various forms of cancerous and other tumours. In most cases the first notice we have is the appearance of a tumour, and in those of internal cancerous or other allied tumours these new growths may have attained a large size, and have spread and infected many other parts before any sign is shown of their existence. This is widely different from what we see in blood diseases generally, in which some symptoms, inflammatory or other, precede or immediately follow the outbreak of local disorder. But what symptoms of cancer in its early stages can we find beyond those afforded by the mere existence of the tumour itself? Is it not rather the case that our suspicions are aroused by the very insidiousness of the local disease? There are some things, indeed, which do make us suspicious of a cancerous future; but they are purely local conditions, and may exist for years before any real malignant disease shows itself. When, for example, with cancerous antecedents we find an undeveloped testicle, or a breast which is unable to perform its functions, or when the skin is the seat of brown scales or moles, which as we advance in life become larger or perhaps irritable, or when the tongue is ichthyotic. So, too, we shall see without surprise a cancer grow when the lip has been long irritated by the pipe, or the tongue by a jagged tooth, or the scrotum by soot. In regard to this latter source of irritation a curious question arises. Chimney-sweeps' cancer used to be a very frequent disease. The disuse of climbing and the cleanlier habits of the sweeps have greatly diminished the number of such cases. If, then, epithelioma be a blood disease at all, the probability is, the number of cancerous persons remaining the same, that if the local seat be not found so often in the scrotum, it must be established elsewhere. Consequently we ought to find an increase in the frequency of cancer in other situations.

We may now come to the question, Why should malignant growths, some cancers especially, when once formed, infect neighbouring and distant parts, and ultimately contaminate the system? The knowledge we have of late years acquired of the independent actions of cells renders a solution more easy, though I admit that it is not free from difficulties. It has long been known that cells are dispersed around a cancer tumour, the direction and rapidity of the dispersion varying according to the density of the tissue, and the abundance of connective-tissue spaces, or of lymphatic or vascular networks in which it lies. It is now known that the white blood-corpuscles can wander from their vessels; more recently it has been seen that cancer-cells—like the white corpuscles—show amœboid movements, and can thus travel independently in tissue spaces, or even permeate delicate membrane. There is no doubt, I suppose, that these cells, whether the matter that forms their nuclei, or the free granules, are the active agents in the reproduction of cancer. We can understand that these cancer-germs may thus travel through their own power, or be carried along in the vascular systems or connective spaces in every possible direction. And it must be remembered that cancer is for the most part a structure infiltrating itself among the tissues in which it lies—not surrounded by a capsule or limitary membrane of any sort, as are so many non-infecting tumours. The newly developing and active cells are always in direct contact with the healthy tissues, on which, in fact, they are living. Once set free, the cells may travel in the three channels I have indicated. First, and chiefly, they may travel along the lymphatics to the glands, where they will form new centres of growth, and by continual invasion affect a series of them, and perhaps contaminate the lymph itself. Or, secondly, they may travel through the surrounding tissues, their direction being often determined by the density of the tissue. Thus it is often noticed that after breast operations the disease will reappear above or below the cicatrix, and will travel on the same plane, not passing across the dense cicatricial tissue. The disease will seem to prefer the easier course, but the densest tissues will not prevent this permeation. In malignant intraocular growths the germs are found at times extending through the dense sclerotic and then bursting out into new growth in the free periocular structures. Thirdly, they may pass into the bloodvessels, and thus into the general current of the circulation; hence, we may get infection of internal organs, or of parts widely removed from the original tumour

evidence of this mode of conveyance in many r

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of sarcoma and enchondroma, and the secondary cancer growths in the lung and liver, so like in many respects to the deposits we get in pyæmia, point to the same mode of origin. Besides these principal modes of conveyance, we meet at times with evidence of conveyance in free cavities by gravitation, and sometimes, but rarely, of implantation by auto-inoculation.

There are some tumours of which the elements are disseminated far more rapidly than are those of cancer; on the other hand, some cancers show little tendency to dissemination. A small melanotic sarcoma, for example, will often give rise to numberless secondary growths in a marvellously short space of time. This is perhaps due to the great activity of growth and the abundance of granular matter which often characterise this form of tumour. If we look to epithelioma, on the other hand, we see that, great and destructive as may be its local action, yet its area is usually limited to the first part invaded and the contiguous lymphatic glands. The structure explains this. The component cells are coarser, have less independent movement, are more packed together, sometimes becoming coherent. They may pass into the lymphatics—coarser matter will do that,—but, like the cells from which they originate, they are little disposed to wander; the tumour grows more by continuity, less by dispersion. This is still more marked in rodent cancer, where the cell activity is at a minimum and the ulcerative keeps pace with the formative processes.

It seems to me, then, that we can account for the diffusion of cancer, when once formed, without calling to our aid a pre-existing or concurrent disease of the blood.

Admitting that cancer, like other infecting tumours, is reproduced by the growth of germs which have been conveyed from it to distant parts, the question arises, How can we account for the fact that after removal there may be no reproduction for years? Can it be imagined that during all this interval the germs of disease deposited from the original tumour have remained inactive? Is not this contrary to the nature of cancer, and does it not show that there is a cancerous poison in the system? I admit the difficulty; but it is not removed by assuming that the blood or the system is primarily diseased. My conviction is that cancer and other tumours may remain in a rudimentary state for an indefinite length of time. In the case of recurrent cancer we often see that an enlarged and hard gland which is left after the removal of the main tumour will remain quiescent for years, and that then active growth will set in. The same will take place in a cicatrix which has perhaps remained hard. It may be said that this is only an evidence of the return of the blood to a cancerous state. But it is as difficult to understand the quiescence of the blood during this long time as of the cancer germs. Many facts, both in normal and morbid development, are indicative of the possibility of tissue remaining unchanged for long periods, and then taking on new phases of growth. Such are, for example, the change of epiphysial cartilage to bone after twenty years, the change in the female breast at the period of puberty, the shedding of the milk-teeth and the development of the second set. Still more to the point are, perhaps, such instances as the frequent enlargement of the prostate gland in advanced age, or the growth of hair on the female face from follicles which had existed, but in an inactive state, for sixty years. It is not at all improbable that what is here seen as a result of advancing degeneration often plays its part in cancer development. It is probable, too, though it may not admit of proof, that in those cases, which are so common, of hereditary lipoma or sebaceous or dermal cyst, the rudiments are present from the first. We know as a fact that such tumours will remain small, only just perceptible perhaps for twenty or thirty years, and will then take on active growth. In the imperfect structure of an inefficient mammary gland, or of an abortive testicle, is there not present from the earliest period some form of indifferent tissue prone to irregular development, but quiescent during the active periods of life? This is rendered the more probable from what is so frequently found in connexion with epithelioma. We have here on the surface what may be hidden in the case of the deeper glands. Scales, or warts, or moles, and some imperfect epithelial growths, may remain without change for fifty years, and then may become the seats of a cancerous growth. If such a scale or other imperfect tissue were persistently irritated, it would doubtless become cancerous at an earlier period. Cancer has been there potentially for years; but its time has not come. Such, I believe, is the explanation the fact that cancer germs which have wandered from the parent tumour may remain quiet for indefinite lengths of time. I can see no other way of accounting for such a case as this. A tumour is removed; a year afterwards a small nodule, not so large as a split pea, is discovered and removed, no other nodule being perceptible after careful search. After another long interval, another small nodule is found and removed; and again there is quiescence. This may be again repeated. Can we suppose that there are continual reproductions of a blood-poison followed by periods of healthy condition?

While I believe it probable that the germs of cancer may thus remain in a sort of dormant condition for long periods of time, I would by no means imply that there is not in cancerous patients a special disposition to tissue change located in some, but not in all the structures of the body. The general tendency to degeneration may give rise to the primary local change; so may local irritation. Thus, out of a hundred chimney-sweeps or clay-pipe smokers, a certain number may have chimney-sweep cancer or lip cancer, the number varying perhaps according to the duration and extent of the irritation. But the majority will not become cancerous, irritate how you will; and of the remainder, few probably would have cancer unless irritation were applied. The same remark may be made as to such ordinary growths as warts. In some the least irritation will produce them; in others they never will appear. Like other tumours, too, they have their seats of election, and their favourable period of life, and they often appear to be inherited.

There are other facts observable in the later course of a cancerous disease which are difficult of explanation either on the hypothesis of blood disease or of localisation. For example, a local cancer in an ordinary situation may give rise to a general disease of a structure totally different from it. We meet, for example, with a wide-spread disease of the osseous system following a breast cancer, and the disease may not show itself as cancer deposit, but as entire absorption. This may be seen in many of the bodies of the vertebræ, which may totally or partially disappear without any cancer growth being detected, and while yet cancer deposit is taking place in other bones. These, no doubt, are exceptional cases. We find, however, that natural tissues are at times disposed to undergo changes which are equally inexplicable. The changes taking place in some out of all the muscles of the body, the fibrous growths on a number of the nerve-cords in multiple neuroma, and other cases, show that local tendencies to tissue-change exist in detached parts of general tissues. They may be allied to the degenerative changes which pervade unequally particular tracts of the arterial system. We cannot as yet account for these and such-like facts; but whatever may be the local condition which thus determines special tissue-change, whether its seat be in the parenchyma or in the nervous system, the same may possibly determine a preference for deposit or degeneration under the conditions of progressive cancer. We have, in fact, to solve the question, Why have diseases seats of election at all?

Another remarkable and not very explicable phenomenon is the arrest of cancer growth and the gradual wasting of the diseased mass. This is an occasional event which is very important, as it encourages us to hope that a cure may yet be found for the disease. Although this recession of cancer is sometimes coincident with the development of tubercle, I doubt whether we have sufficient data on which to establish the conclusion that the one disease is antagonistic to the other. It is, however, worthy of note that, frequent as is the occurrence of cancer in consumptive families, the co-existence of the two diseases in one member is not a common event. But cancer is a disease of the middle and later periods of life, and tubercle generally of an earlier one. Those who live to be victims of cancer have passed the period when tubercle would be most likely to set in. That this arrest or recession is not due to any exhaustion of the cancerous element in the body is shown by the fact that, while the disease is retrogressive in one part, it is in active growth in another. The retrogression differs from the degeneration of the earlier formed cells, which is constantly going on in the interior of tumours, as shown by the presence of fat-granules, compound granular cells, and such like. In the case alluded to, the activity of the whole mass is arrested, new cells cease to be formed, and the tumour fades. I doubt whether this can be from the plugging of the vessels feeding the tumour. This no doubt often takes place, and the death of some portion of the mass may be the result. But when we find a widely spread

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mass becoming quiescent and then fading throughout its whole extent, we must, I think, look to some other cause—for cancer is so far like a parasite that it draws its nourishment largely from the tissues in which it lies. When, for example, a nodule of enchondroma or of sarcoma is detached and floated off in the current of the circulation, and afterwards grows in the lung or the liver, it must in the first instance obtain its nourishment from surrounding tissues. We must look elsewhere for an explanation. It only shifts the difficulty back a stage or two, as I have so often done before, to suggest that the recession of cancer takes place in obedience to the law under which local atrophy, independent of inflammation or disuse, may occur; or that it may be due to some want of organising power inherent in it from the first, as some cancers seem born to be atrophic. It is, under any circumstances, a most important subject for investigation.

Lastly, I would suggest the question—Why is it that cancer, if a blood disease, should be so pre-eminently a disease of women? Taking all cases together, I suppose we should not be far wrong in saying that the uterus and the mammary gland are the seats of the disease in 90 per cent. Does it not look as if the mere tissue-changes dependent on the peculiar vital conditions of these organs were the starting-points of the disease? Were it not so, and if the disease were from the first in the blood, surely we should find that men were as prone to cancer as women. Other forms of tumour are nearly as prevalent in the one sex as the other. It is a point worthy of consideration.

I must now apologise to the Society for having so long occupied its time in a mere enunciation of opinions, of which many must be considered as now commonplace. Some may be regarded as vague and shadowy. Long as my remarks have been, I have felt that, without overstepping the bounds of your forbearance, I could not do justice to any one of the subjects on which I have entered. I have, however, the satisfaction of feeling that, without reference to my shortcomings, they will afford ample material for discussion by those who differ from or who agree with me, and who will, by giving us the aid of their experience, their observation, and their reflection, throw a light upon the nature of this fearful enemy, and thus upon the means by which we may accomplish its overthrow.

ORIGINAL COMMUNICATIONS.

SOME REMARKS

ON A CASE OF PYÆMIA, WITH CHOREIC MOVEMENTS OF THE FACE, TONGUE, AND RIGHT HAND,

IN COUNTRY PRACTICE.

By HENRY MORRIS, M.A. Lond., F.R.C.S.,
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The object of Mr. Prescott Hewett's address at the Clinical Society seems to be to set forth the fact that pyæmia occurs in private practice as well as in hospitals, and in patients without, as well as in those with open wounds.

At the time when this subject is being discussed, and while, too, what may be called the counter-proposition—embraced under the term hospitalism—is gravely advocated, the following case, I think, possesses considerable interest. Before any answer can be given to the important question raised by Mr. Hewett's paper as to the comparative frequency of pyæmia in hospital and in private practice, it will be necessary for surgeons to make known cases of this disease which come under their observation away from their hospitals; and until this is done, those who employ the word "hospitalism," and entertain the views implied by it, will, to say the least, have "figures" upon their side.

No one who will take the trouble to read this report will deny that it affords abundant evidence of pyæmia; moreover, the corroboration of diagnosis, which in private cases is so often unobtainable—viz., post-mortem examination,—is here not wanting. The patient was a healthy boy who had always lived in the country, and although it is true that the house in which he was residing at the time of his illness was near some kennels, it was situated in an open park, and was well drained and ventilated. The following are the notes of the case taken at the time:—

Intestinal Obstruction from Old Adhesions—Pyæmia, accompanied with Choreic Movements—Death.

On October 13, 1869, I was asked to see Arthur S., aged 14, the son of healthy parents, residing near Petworth. Upon inquiry it was stated that about two years previously he was seized with pain and tenderness over the cæcum, which lasted a fortnight. The attack commenced with costiveness of the bowels, and to relieve it he was leeched and blistered in the right iliac region. On two occasions afterwards, he required purgatives and injections to overcome obstinate constipation of four or five days' duration.

On Friday, September 24, 1869, he was in good health, and ate heartily, amongst other things, of goose—the gizzard of goose and Spanish onions. About twelve o'clock that night he was seized with pain in the right iliac and hypogastric regions, and shortly afterwards passed a motion of blackish colour and very offensive smell. During the night and the next morning the bowels acted six or seven times, each stool being black and offensive.

This diarrhœic attack ceased on the 25th, at 10 a.m., and after three or four days, as no action of the bowels occurred, the patient's mother gave him an injection of soap and water, and afterwards some purgative medicines. These had no effect, and then the family medical adviser, Mr. Morris, of Petworth, was sent for.

On Sunday, October 10, in spite of treatment, no action of the bowels had taken place; there was great fulness about the abdomen, and the vomited matter, which till this date had been simple, became stercoraceous.

Wednesday, October 13, 11 a.m.—Intestinal obstruction still complete. He was lying on his right side, with his knees drawn up, his face flushed and thin; his tongue coated in the centre, and beefy red at the tip and edges; pulse 111 in the minute, small, wiry, but regular; respiration quiet; no perspiration, coldness, nor blueness of the surface or extremities; urine passed freely, but in small quantity at a time; he had vomited a small quantity of stercoraceous fluid. Paroxysms of pain, especially at the epigastrium, occurred at intervals, attended with well-marked spasm, during which coils of intestine could be seen and felt projecting the front wall of the abdomen. There was, however, no well-marked outline in the course of the colon. During the spasms no vermicular movement of the intestines was seen, but there was a general movement of abdomen from sternum to pubis. Tympanites extended high up on each side—on the left side as high as between the third and fourth ribs. At 4 p.m. the same day, while sitting over a vessel of hot water, a good deal of flatus passed, and a feeling of weight was experienced in the rectum; but nothing could be felt with the finger excepting some white flaky pieces of undigested food, which were withdrawn. The pulse was now notably softer and more compressible than in the morning. After emptying the bladder by a catheter, an injection of soap and water was administered, which returned at once unaltered, and at the same time a pint or more of dark brown fæculent fluid was vomited. Immediately afterwards, a voluminous solid dark-coloured motion was passed.

14th.—Nothing has passed the bowels since, and the abdomen feels distended. There is still a sensation as of a lump in the rectum. The pulse is so fast it cannot be counted. A warm water injection was given, which had the same effect in every respect as yesterday. Complained of extreme coldness during the night.

21st.—During the whole week he has been very ill, and his bowels have only acted in response to injections.

24th.—For the last day or two he has complained of feeling very "puffy," although there is no distension of the abdomen. There is no sickness. A red line along the flexor side of the right arm has appeared. There are aphthous spots on the tongue and gums, and a well-marked herpetic eruption around the mouth. There is also considerable twitching of the right cheek, and the tongue is occasionally thrust spasmodically out of the mouth and moved violently and rapidly from side to side: this is quite beyond the control of the will, so that the poor boy is obliged to hold his tongue between his finger and thumb, or press it down with a lump of ice. There is, too, some spasmodic movement about the right hand. The left ankle-joint is swollen and decidedly hotter than the right, and there is redness over both sterno-clavicular joints and pain about the left shoulder-blade. No shivering; the pulse 120;

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respiration normal, so are the heart sounds, and there are no head symptoms.

31st.—The patient's general appearance is much altered—he looks quite like an old man, is very emaciated, his cheeks are flushed, his skin is dry, scurfy, and dusky-looking. All spasm of the tongue and hand has subsided; aphtha and herpes disappeared. There is an abscess in the right forearm, about the situation of a puncture made by the hypodermic syringe. This was opened, and an ounce of dirty brownish pus escaped. Fluid is detected in the left ankle-joint, and the skin behind the outer malleolus is very red. There is swelling, but no distinct fluctuation, about the right sterno-clavicular articulation. The redness over the left joint has subsided, and the left scapula is pressed away from the thoracic wall by a fluctuating swelling between them, from which a quantity of creamy pus escaped on puncturing it with a lancet.

November 1.—A back splint, with a foot-piece, having been applied to the left leg, an opening was made into the ankle-joint through the red skin behind the outer malleolus, and a little pus escaped.

4th.—Died at 6.30 a.m. The urine passed a few hours before death was like thick porter and water; it almost solidified with heat and nitric acid, and under the microscope was seen to contain a large number of blood-corpuscles, but no casts. The urine, which had previously been examined frequently, had on no other occasion shown traces of albumen.

Post-mortem Examination (twenty-seven hours after death).—Body much emaciated. A large quantity of creamy pus escaped from the right sterno-clavicular articulation. Recent general peritonitis. The visceral and parietal peritoneum were both inflamed; the intestines in places were of a dark purple colour. The small intestine was somewhat distended with flatus and fluid. In the right iliac region a portion of bowel was bound down to the abdominal walls by old adhesions, and the lower portion of the ileum was glued to the cæcum in such a way that there were two sharp flexures in the ileum—one close to the cæcal valve, and the other about thirty-five inches higher up. These flexures were firmly adherent to each other, and the intervening bowel and mesentery thereto belonging were much coiled and puckered. Some bands of old tissue passed between the flexures, helping to bind them still more firmly together; and other bands extended from the puckered mesentery to the ileum just below the first flexure. The appendix cæci was also involved in the adhesions, but its extremity was quite free. On dissecting away the tissues about its base, it was seen that the attached portion was much constricted and of a bluish colour, looking as though it was in process of sloughing off. On opening the intestine the mucous membrane below the highest flexure was quite normal, and the valvulæ conniventes were very distinct; but above this flexure for several inches the coats were so thin from over-distension that light was transmitted readily through the double thickness of the gut. The liver was quite healthy. The kidneys very congested, and the left was larger than the right. The pleural cavities contained no fluid, and there were no pleuritic adhesions; but on cutting into the lungs some purulent patches were observed in each, and especially in the left lung; the largest of those in the left lung was seen near the surface in the lower lobe. The heart contained but little blood, and was not diseased.

Remarks.—The history of previous mischief in the right iliac fossa, the former attacks of constipation, each of four or five days' duration, and the fact that the present attack followed a full and indigestible meal, sufficiently pointed to old adhesions, matting together some coils of intestine, as the cause of obstruction.

The pain which again recurred in the right iliac fossa, the absence of outline of the colon upon the abdominal wall, while the markings of the coils of small intestine were well seen, the late period at which stercoraceous vomiting appeared (not until the fifteenth day of obstruction), the free secretion of urine, and the diarrhœa at the commencement of the illness, all favoured the opinion that the situation of the obstruction was quite at the lower part of the ileum, but above the colon—in fact, in the neighbourhood of the cæcum. That this opinion was well founded the post-mortem examination amply proved. It further justified the objection to insufflation, which had been casually suggested; and it showed, too, that no good could have resulted from the operation of abdominal section.

But apart from the interest of the case as one of intestinal obstruction, its importance is increased by the occurrence of pyæmia, which carried off the patient. The question arises, What was the cause of the pyæmia? I can suggest four possible sources of blood-poisoning. In the first place, there was one, and only one, breach of skin-surface (before symptoms of pyæmia appeared) known to those who were in attendance on the patient, and this breach was so slight that it scarcely deserves to be called one. It was caused by the use of a hypodermic syringe on one occasion between the dates of October 14 and 21. This syringe had been used only for an old man the subject of epileptiform neuralgia, who is at the present time in the habit of having a daily subcutaneous injection of morphia.

Is it possible that in the patient's weak state this slight puncture could have had anything to do with the origin of pyæmia? Such an idea would not have suggested itself had not a red line formed along the right arm, and an abscess in the right forearm near the seat of puncture.

Secondly, could the system have been poisoned either through this puncture or through the lungs by the atmosphere of the kennels near which the house was situate? The house itself was airy and well drained; and I have since performed a cutting operation upon this patient's younger brother in the same room as he himself occupied, and with the surrounding atmosphere similarly charged by exhalations and odours from the kennels.

Thirdly, it will be noticed that in the account of the post-mortem examination it is stated that the appendix cæci was involved in the adhesions, and near its attached end it looked as though it was in process of sloughing.

Fourthly, foul gases and fluids were for many days retained within the bowel above the seat of obstruction. Some of these might, and probably did, pass into the circulation through the immensely thinned parietes of the intestine. Were either of these sources of poison to a system already much depressed by pain and vomiting?

In my own mind one of these two latter possibilities seems the greatest probability; but then, with such an origin, should we not have looked for the disease to leave its mark upon the viscera—especially by forming abscesses in the liver,—rather than to have assumed what may be called the rheumatoid character by attacking the joints and forming subcutaneous abscesses? As it was, however, the lungs were the seat of purulent deposits; there was general peritonitis; and although up to the last day of life no albumen was found in the urine, albumen and even blood existed in abundance in that passed a few hours before death.

Amongst the symptoms recorded there is one peculiar group which I believe is rare in such cases. I refer to the twitchings of the right cheek, the spasmodic movement of the right hand, and the severe uncontrollable movements of the tongue, all of which passed off some days before death. There were no head symptoms at any time noticed, but the patient's distress at being unable to check the movements more particularly of the tongue was great. These spasmodic movements, no doubt, were of the nature of chorea. They might have been caused by the intestinal irritation, but chorea is known to be an occasional complication of rheumatic fever, especially in persons under puberty; and rheumatic fever, in that it attacks the joints, and in fact in many of its symptoms, is closely related to pyæmia—so closely, indeed, that mistakes have arisen in diagnosis, as post-mortem examination has proved.

The twitchings of the cheek and jerkings of the tongue and hand commenced, too, about the time of onset of the symptoms of articular affection, and they had ceased by the time pus had formed in the forearm, between the scapula and thoracic wall, and in the left ankle-joint. This, again, bears a resemblance to what has been described by Ferber—viz., that when chorea appears in the acute stage of rheumatism it is frequently in direct relation with the onset and remission of the arthritic symptoms, in children especially with the former, in adults with the latter. Whether the chorea in this case was due to embolism I do not know. How far it supports the theory of the embolic origin of chorea I leave others to infer. Its occurrence as a complication of a disease so associated with emboli as pyæmia is at least interesting.

The above is not the only case of pyæmia which I have seen in the country. I am able to call to mind a strong, healthy-looking young man about thirty-two years of age, also a patient of the late Mr. Morris, of Petworth, who was no doubt the subject of what has been called arterial pyæmia. I do not possess notes of this case, nor was it possible to obtain

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permission to make a post-mortem examination, although efforts were used to do so; but the course and symptoms of the disease left no doubt in our minds of its pyæmic nature.

The patient, who was in easy circumstances, had suffered from rheumatic fever, which, however, had left no audible trace of heart disease.

Some time afterwards he lost strength and energy, and became ill with febrile symptoms, occasional rigors, arthritic pains, dry tongue, weak quick pulse, and sallow complexion. He went on from bad to worse, and died after a protracted illness of many weeks. Neither gonorrhœa nor any wound was present.

ON A NEW FORM OF FIXED BANDAGE.

By W. W. WAGSTAFFE,
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In the course of last year my attention was drawn, by Mr. West's address upon French Surgery delivered at the Midland Medical Society, to the silica bandages used in the Paris hospitals in place of gypsum and starch, and, being then Resident Assistant-Surgeon at St. Thomas's Hospital, and able to find frequent opportunities for testing the value of new appliances, I was desirous of trying this. However, I found that no such preparation of silica for bandages had been brought into use in England, and upon inquiring of Mr. West himself, found he had been unable to succeed with the preparations obtained in England. The French directions, too, for its preparation were so useless to a surgeon that I despaired of being able to find anything at all satisfactory. However, I was fortunate enough to obtain, through my friend Mr. A. H. Smee, a small quantity of colloidal silicate of soda, and with this succeeded in making an exceedingly firm bandage. This bandage was put on over the knee in a case of knee-joint disease in July, 1873, and was removed only in November, after four months' wear, and at the end of that time it was perfectly strong, clean, and sound. This bandage was a single length, arranged in three successive layers, each being covered with the silicate; and the whole quantity of the silicate used was four ounces.

The silicates of potash and soda, dissolved in an excess of caustic alkali, are now prepared in large quantity in the manufacture of soap, and can be easily obtained at a very moderate cost. Messrs. Hopkins and Williams, of 16, Cross-street, Hatton-garden, have supplied it in large quantities at 4d. a pound, and in small quantities at 6d. a pound, and it can be obtained, though inferior in character, at 2d. and 3d.,—so that it is not an expensive material. In fact, it is about half or a quarter the price of the thick gum solution used for similar bandages, and, being firmer, does not require to be used in much more than half the quantity.

The plan which I have adopted has been to encase the joint or fractured limb in cotton-wool, lint, or a thin flannel roller; then over this to apply a common bandage, dry; over this to paint the silica by means of a brush or sponge; and to repeat the bandage and silica so that two or three layers of each exist. As soon as the last layer is dry, another coating of silicate is to be put on, so as to give an even surface.

The limb is to be left exposed to the air for about half an hour, but there is no fear of any of the silicate coming off after the first few minutes, and after half an hour or less (varying with the temperature) the bandage is firm enough to prevent movement. However, the bandage continues to harden for about two or three days, at the end of which time it should be quite firm; but it is usually firm enough in a few hours to insure immobility of a limb. It is sometimes advisable, as where great strength is required, to coat the splint after a day or so with fresh silicate; but where such strength is wished for, it is better to adopt a modification to which I shall refer directly. The fixed bandage, as now completed, does not contract in drying, and does not produce the inconvenience which is often seen with gum bandages—that of contracting at the margins and cutting into the skin. It forms a fixed splint of great lightness, cleanliness, and strength, and of less expense than gum. With children I generally take the precaution of varnishing over the surface with spirit-varnish after a couple of days, so as to keep the bandage from the wet to which it may be exposed. The solubility of the silicate in water is of advantage, for it renders the removal of the bandage easy. Without taking the precaution of moistening it, I have seen a strong pair of scissors broken in removing one of these silica bandages from the knee.

The advantages, then, which the silica bandage possesses over the gum bandage, are—(*a*) much greater rapidity in drying, (*b*) greater cleanliness, (*c*) probably greater strength, and (*d*) greater cheapness. Its advantages as compared with the starch bandage are (*a*) its greater strength, (*b*) its greater rapidity in drying, (*c*) its greater cheapness, and (*d*) its freedom from offensiveness after a time. Compared with plaster of Paris, it is (*a*) lighter, (*b*) cleaner, but it does not set so quickly or afford quite so firm a support at first.

There is a modification to which I have alluded above as securing greater strength in this bandage. Mr. W. C. Elliott, of this Hospital, has suggested the mixing of whitening with the silicate. As much whitening is mixed with the silicate as to make a fluid of the consistence of batter. This is used in the same way as the pure silicate, and the results obtained have proved very satisfactory. In a case of dislocation of the knee from injury he adapted a fixed bandage in the following manner:—A thin layer of cotton-wool was spread evenly over the joint, and retained by a bandage; over this strips of brown paper two inches wide, and plastered on both sides with the mixture of sodium silicate and whitening, were placed in the same manner as in strapping a knee, and the whole was plastered over with the mixture, so as to procure an even surface. This bandage remained on for eight weeks, and at the end of that time it was removed; it was still perfectly firm. The patient was able to walk about comfortably with this bandage on.

In removing the silicate and whitening bandage some difficulty may be experienced, owing to its great hardness, but, if care be taken not to have too great a thickness of the coverings, this difficulty may be avoided.

We have therefore in this silicate bandage a means for providing immobility of joints and fractures which far surpasses in convenience, lightness, cleanliness, firmness, and cheapness any of the means hitherto made use of. If a limb be covered with cotton-wool, lint, wool, a worsted stocking, or any other soft protecting material, a surgeon may make use of strips of linen, bandage, or paper saturated with silicate of soda mixed or not with a salt of lime, such as chalk, whitening, or plaster of Paris, and procure a rapidly setting and extremely firm splint, the expense of which is reduced to a minimum.

I have used it now frequently in cases of fracture without swelling, or before swelling has come on, and with most beneficial results. The silicate of potash is, in my experience, inferior to the silicate of soda, and it offers no special advantage in any respect.

In the mixture of silicate of soda and whitening it appears, from experiments which I have made, that a partial decomposition occurs, and a lime silicate is formed, which is of very great strength. But the great hardness of this preparation proves sometimes objectionable, and I have now made use of a mixture of starch and silicate, with the effect of procuring an extremely firm, but slightly yielding, bandage. It seems that the addition of the starch thickens the preparation only, and allows of its being put on more as a paste; and as the mixture when dry is slightly yielding, it does not press so much upon bony prominences, and therefore is less likely to cause injury than the unyielding lime silicate. Upon the whole, I am inclined to prefer the simple silicate for the majority of cases, as requiring less preparation; but, where special strength and immobility are required, I give the preference to the mixture of silicate and starch or silicate and whitening.

Another plan which I have adopted recently is to moisten the bandage with a saturated solution of calcium chloride, and apply the sodium silicate to this in the same manner as with the dry bandage. The result of this is to form a very hard bandage, which sets quickly. This necessitates, however, a double process, and is therefore not quite so ready of application as the pure silicate alone. In all these applications it is advisable to use the best and densest preparations of the silicate. Considering the readiness with which it can be applied, its cleanliness, and the smallness of its cost, I cannot but think this preparation is destined to supersede the materials at present used for the purpose of making fixed bandages.

2, Palace-road, Albert-embankment.

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OVARIOTOMY UNDER DIFFICULTIES.

By S. G. STEVENS, M.D.

HAVING heard of the success of Mr. Spencer Wells in the operation of ovariotomy, and of the work he has recently published, showing the result of his labours, I am inclined to think the accompanying history of a case of mine, performed in the backwoods of South America, may interest your readers. Perhaps the only novelties you will find in it will be the instruments used and the material that formed the ligature. I hope, however, my inexperience in the operation, the instruments I had at my command, the assistants (who had never seen an operation before), the bad accommodation of the locality, and, above all, the prejudices and belief of the people among whom it was done, will be sufficient to save from criticism.

Mr. G. W. Musters, who has just come over the Cordillera from the Pehuenche Indians, has kindly promised to put this paper into your hands. In order to avail myself of so good an opportunity, I have been compelled to write it very hurriedly, and to condense the history as much as possible. Mr. Musters has seen the tumour referred to, preserved in my collection.

Futrahuante, aged about 38 or 40, married, four children living, five died of enteric fever (nine in all), an Indian woman of the Huiliche tribe, and living near the Lake of Rauco, in the great forests at the foot of the Cordillera, was seen by me in January, 1871, having passed her hut to ask for lodgings for the night. She was lying in one corner of the hut, on her bed of sheepskins, evidently suffering much. She told me that about five years previously she had had a quarrel with another woman, who suddenly disappeared from the neighbourhood, and that ever since then her belly had been swelling; that the other woman had bewitched her, and that, unless she could find her(a) or some remedy, she would go on swelling, burst, and die. I found her suffering from great dyspnœa, lividity of countenance, and the abdomen of enormous size—distinct fluctuation. I saw at once it was an ovarian tumour; it appeared to be divided into four parts. I told her I thought I could take out the evil, which of course she did not believe. The next morning I had some conversation with her husband on the subject, and he, after consulting with his family, finally consented that I might try and see if I could do anything for his wife, who he said must die ere long. My idea at the time was to make an exploring wound, and extirpate if possible; if not, to tap and close up the wound. We had to send to Valdivia for chloroform—four days' journey. In the meantime, I occupied myself in preparing the patient, in considering with what instruments I was to perform the operation, and selecting and instructing my assistants. The instruments were a trocar made from a piece of *colhuihue*(b) about ten inches long, hollowed out, and sharpened to a point at one end, and at the other connected with a piece of indiarubber tubing from an enema syringe; the instruments from a "Charrière" pocket case, and a pair of craniotomy forceps. The assistants were a Catholic missionary, two Indians, and a half-blood. The ligature was made of raw hide, with two pieces of wood fastened at the ends in order that more power could be used in pulling it tight; and at the time of using it was to be dipped in warm neatsfoot oil.

January 25.—The chloroform having arrived, we commenced at daybreak the heating of the hut to the proper degree, by filling a large square hole excavated in the centre with hot coals made from a root fire burning outside. The board and the instruments were also prepared outside; and at 10 a.m. we were ready. I administered chloroform, during which time the table and the instruments were brought in; insensibility produced, she was lifted with difficulty on to the table. The priest took his post at the head, with the chloroform mask; an assistant on each side, and the other behind me to steady the feet. I began with a wound of four inches long in the linea alba down to the peritoneum, tied two small dribblings or oozings, dried the wound with cotton-wool, and made a very small incision in the peritoneum, when the fluid rushed out like a fountain into my face. I enlarged, and the tumour presented, but it appeared solid; but, by a little management, I was able to move it on to one side, and discovered fluctuation. The trocar introduced, the fluid began to run well at first, but gradually became thicker. I disconnected the tubing, and it again flowed from the bamboo tube, but soon stopped. I enlarged the opening two inches, and found another cyst, which was emptied the same as the first. I was now able to introduce my hand behind the tumour, and found it free in every part. The craniotomy forceps was applied, but we could could not get it out without enlarging the wound a little more at the upper part, when, on raising the patient a little more, it came on to the board I had ready for its reception, and behind it a rush of the ascitic fluid. The pedicle was rather long, but flat; the raw-hide ligature was applied to it, and tightened by means of the two pieces of wood, pulled by the two assistants on each side of the body until it was almost buried in the parts, and then made fast with two lasso-knots,(c) the ends cut off, and the whole dropped into the cavity. The cavity was mopped out with cotton-wool, and the wound closed with fine iron-wire sutures, pushed through from within outwards and twisted, and a superficial continuous suture of silk. Water dressing was next applied, and a warmed *bayeta* flannel roller passed twice round the body. Consciousness returned before I could get her off the table, owing to the priest not attending to the chloroform, being too occupied and astonished at my movements; in fact, throughout the whole proceedings I had constantly to attend to the pulse. Great exhaustion followed, and I had first to administer warm wine-and-water, and afterwards warm whisky-and-water, apply friction to the extremities, until finally, at five o'clock in the afternoon, she had improved very much, with a pulse at 115, and the surface warm and moist. My thermometer was broken, so I could not note the temperature.

I remained in the neighbourhood twelve days to attend to her, during which time she went on well with the exception of a little vomiting the day after the operation, owing to the husband giving her warm lamb's-blood(d) without my knowledge. The first pair of sutures were removed on January 28, and so on day by day one or more was removed, until the ninth, or middle one, was taken out.

February 25.—Saw her again. The wound entirely healed, but she complained of pain in the left side near the pubes. I ordered her rest and good diet, and care as to the state of the bowels.

March 15.—I saw her. She could stand at the door of the hut to receive me; said she had not the slightest pain, but was still very weak.

June 28.—She came down from the lake to the village of Rio Bueno to see me—a day's journey through the forest. The menses had returned, and she was quite well. She said she felt a fulness at each menstrual period.

The tumour consisted of five larger cysts and many smaller ones, but only two had fluid, which was of a black-greenish colour; the rest contained a substance like half-cold glue, with a cavity in the centre containing a semi-fluid. Weight without the fluid, thirteen pounds and a half.

The patient continued to enjoy good health until December, 1872,—nearly two years,—when she, with her husband, went to the funeral of a relative, drank so much that she became intoxicated, and on passing a river the horse stumbled and fell; the current took them down, and she was drowned, and the horse saved himself.

Never having seen the operation nor read any special work on the subject, I had nothing to direct me but the short account given in the last edition of Dr. Tanner's "Practice of Medicine."

Rio Bueno, Valdivia, Chili.

(a) The Indians believe that the person who has caused them the evil can cure them.

(b) A species of bamboo.

(c) One on each side—*i.e.*, one tied first, and then the ends carried round to the opposite side; a slit made in one end, and the other cut in the form of a knob, which passes through it, thus preventing slackening through swelling.

(d) The Indians eat the blood of the animals they kill, mixed with salt and Chili pepper, while it is warm.

NEWS from Buenos Ayres of the 25th ult. states that cholera continues, and the deaths are double the average rate. Typhus fever and small-pox are reported to be causing great mortality in Bilbao.

LOTION FOR PRURIGO.—Lemon-juice 10, aromatic vinegar 5, and water 200 parts. To be used several times a day in order to relieve the irritation of pruritus of the vulva or scrotum. After each application the skin to be dried and covered with potato starch or lycopodium. Frequent baths should be taken, and alcoholic drinks to be abstained from.—*Union Médicale*, February 24.

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REPORTS OF HOSPITAL PRACTICE IN MEDICINE AND SURGERY.

GUY'S HOSPITAL.

CASES UNDER THE CARE OF MR. BIRKETT.

We are indebted to Dr. Goodhart for the following notes:—

Case 1.—*Popliteal Aneurism in Right Limb cured by Pressure—Popliteal Aneurism in Left Limb cured by Ligature of Femoral seven years previously.*

Richard B., aged 47, following no occupation in particular, was admitted into Lazarus ward on September 27, 1873. He was anæmic-looking, and stated that he had been a patient in the hospital in March, 1866, suffering from an aneurism of the left popliteal, which Mr. Birkett cured by ligating the femoral artery. About five months ago he was troubled with frequent pains in the region of the right knee, and about a month ago he discovered a lump in the popliteal space of right leg, and suspecting an aneurism, from his experience of the disease in his left leg, he came to the hospital at once and was admitted.

On admission there was a tumour about the size of a pigeon's egg in the popliteal space, which pulsated, the pulsation being of an expansile character. When the femoral artery was compressed, the pulsation in the tumour ceased, and the tumour itself partly collapsed. The arteries about the ankle beat normally; but the posterior tibial feels rigid. Heart dulness very slight. On the left thigh there was an old cicatrix, showing where the femoral was tied; there was slight pulsation above this scar, but none below it. In the left popliteal space was a hard tumour, about the size of a walnut.

October 3.—Pressure was applied to the femoral artery from 11 a.m. to 8 p.m. by means of a tourniquet, which, however, did not act quite perfectly, so that the blood-current was not quite continuously suspended. The limb was wrapped in cotton-wool and bandaged

4th.—The pulsation in the tumour is not so strongly marked as it was. He is suffering much pain about the knee-joint, and some pain in the back.

8th.—Pressure upon the femoral by means of Liston's tourniquet from 10 a.m. to 9 p.m. A quarter of a grain of morphia had to be injected during the time, to relieve pain down the leg.

9th.—Pulsation diminished.

15th and 16th.—Signoroni's tourniquet applied 10.15 a.m. on the 15th, and pressure continued up to 1.20 a.m. on the 16th.

18th.—There is no pulsation to be felt in the popliteal space, and the tumour is smaller.

25th.—Still no pulsation in tumour. No distinct collateral circulation has been made out yet, but some of the small arteries round about the sac are enlarging.

29th.—Patient has improved in health. An artery can be felt pulsating above the tumour.

November 12.—No pulsation to be felt yet in the tibial vessels about the ankle. Patient has been up once to have his bed made, but, with this exception, he still keeps in the recumbent posture.

13th.—Leg bandaged and covered with wool. Patient allowed to sit up.

17th.—Up to-day for the third time. The limb is comfortable. He sometimes feels a slight pulsation on the inner side of the knee, which lasts for a few minutes together.

26th.—Discharged quite cured.

The following case is worthy of notice, as showing the possibility of curing hernia testis by simple pressure well applied:—

Case 2.—*Hernia Testis cured by Compression.*

Henry S., aged 36, a labourer, was admitted into Samaritan ward on October 8, 1873. His family history was good. He had had gonorrhœa five years ago, but otherwise had enjoyed good health, with the exception of fever in India. Twelve months ago he was thrown from a horse while serving in the army, and was kicked in the scrotum, which at once began to swell to a very great extent. He was in the military hospital for one month, and says iodine was applied to the swollen parts. After this he was able to return to his duties, but six months later he was discharged from the service invalided. He worked as a labourer, feeling little or no inconvenience, except very occasionally, till about four months ago, when the scrotum began to swell again, and broke and discharged. The sore has continued to discharge ever since.

On admission there was on the left side of the median raphe of scrotum a raised, bossy, granulating surface, of somewhat warty appearance, with much thickening around it in the scrotal tissue. The testicle is firmly adherent to this granulating surface. On the right forearm, just above the wrist, is a large tender swelling of the bone (ostitis). The skin is movable over it. Motion at the wrist-joint is normal. The radius higher up is irregular, as if the seat of former ostitis. Is taking five-grain doses of iodide of potassium with decoction of cinchona.

October 18.—The arm is about the same—very painful. The scrotum is strapped up, and a pad of lint is confined over the wound.

November 11.—Strapping removed; the wound was found to be almost healed, though there was still a slight discharge from it. The arm continues painful and swollen.

December 8.—Scrotum quite healed. Suffers pain in the left arm at times. The arm, too, is swollen.

30th.—Discharged. The hernia testis has quite disappeared, and the scrotum is healed over it. The thickening over the lower end of the radius is still extensive, but not painful.

TRIPLICANE DISPENSARY, MADRAS.

EXTRACT FROM THE ANNUAL REPORT OF OUT-PATIENTS FOR THE YEAR 1871.

By Honorary Surgeon MOODEEN SHERIFF.

I. Surgical Operations.

(*Continued from page* 209.)

Case 2.—*Organic Stricture of six years' duration—Dilatation of the Urethra with Wakley's Instruments in one sitting—Recovery.*

N. R., aged 27, male Mahratta. This man was admitted on August 8 as an out-patient, on account of a very severe and painful stricture of the urethra, which he said he had been more or less subject to for six years. As usual, it was the result of a protracted and neglected gonorrhœa. Long before his admission he had ceased to pass his urine in a stream, and on admission he was not able to void it, even in drops, without much straining and pain. The urethra was very narrow and hard all along its course, with a tight and gristly stricture about the membranous portion. The patient having consented to be operated upon, I introduced Wakley's catheter into the bladder with difficulty, and then dilated the urethra up to the last tube, in the same manner as described in the preceding case. The patient emptied his bladder immediately after the operation, and in the largest stream I ever saw. I was assisted in this operation by Hospital Assistant Syed Ally Mahomed. The patient in this case called at the Dispensary on the third day, when No. 12 catheter was introduced into the bladder very easily. He made a perfect recovery.

Case 3.—*Organic Stricture, with Two Fistulæ in the Perineum: duration about ten years—Dilatation of the Urethra with Wakley's Instruments in one sitting—Recovery.*

I. P., aged 35, male Malabar. This patient was brought to the Dispensary on August 16, by Hospital Assistant Syed Ally Mahomed, to be operated upon with Wakley's instruments. He had a most impassable organic stricture, of about ten years' duration, with two fistulæ in the perineum. There were also two very hard cartilaginous lumps in the perineum along the course of the fistulæ, the largest of which was about one inch in diameter. During micturition the whole urine passed out through the fistulæ, and only occasionally a few drops through the meatus urinarius. The urethra was almost impervious as far as the bulb, and degenerated into a very hard and cartilaginous mass to some extent behind that portion. With the greatest difficulty and perseverance, I passed the catheter as far as the membranous portion, where the obstruction was so great that it was impossible to pass it any further. The urethra was then dilated up to No. 10 tube, under the influence of chloroform. The patient tried to pass his urine about an hour after the operation, when there was a little difficulty in doing so at the commencement, on account of some coagula of blood in the canal; but a minute or two

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afterwards it flowed freely, and in a stream equal to No. 6 or 7 catheter. There was no escape of urine through the fistulæ after the operation. The stream not being of the largest size, I advised the man to be operated upon again, but he thought he was quite relieved, and therefore would not consent to another sitting, and finally discontinued to present himself at the Dispensary when pressed upon this point. The last time he came to the Dispensary was on August 29, and up to this date the stream was of pretty good size, and no urine escaped through any of the fistulæ.

Case 4.—Organic Stricture of about eight years' duration—Dilatation of the Urethra with Wakley's Instruments in one sitting—Recovery.

V., aged 40, male Malabar. The urethra in this case was very narrow in its whole extent, with two tight strictures, one in the bulbous and the other in the membranous portion. The man had been suffering from it for about eight years, and it was the result of a neglected gonorrhœa previous to that period. When he came to the Dispensary (August 17), his bladder was distended, and he could not pass his urine at all, but he said he was able to do it before that date, either in a very small stream or in continuous drops. No. 1 elastic catheter was passed into the bladder easily, but the metallic instrument of the same size could not be passed. With some difficulty, however, I succeeded in introducing the Wakley's catheter into the bladder under the influence of chloroform, and dilated the urethra up to No. 8 tube. The effect of chloroform was not good in this case, and therefore the patient struggled several times during the operation. When I was just done with No. 8 tube, he struggled so much that the directing-rod slipped out of the bladder; and I therefore concluded the operation at this stage by removing the rod from the urethra. He emptied his bladder soon after the operation in a pretty large stream, which became gradually of the largest size on the third day. This man was Mr. Ramsbottom's patient, at whose request and with whose assistance I operated upon him.

Case 5.—Organic Stricture: duration ten or eleven months—Dilatation of the Urethra with Wakley's Instruments in one sitting—Recovery.

M. A. A., aged 35, male Mahomedan. The patient in this case is an inhabitant of Arcot, and came to Madras on October 25, 1871, with a view to place himself under my treatment for a permanent stricture, which he has been subject to for ten or eleven months. As usual, the disease is the result of gonorrhœa, which still continues on him in the form of gleet. Until a few months ago he was able to void his urine in a small stream, but since that period it is generally passed in drops, and with great difficulty. During the last few months he has been suffering with occasional attacks of fever, which have added much to his misery.

This morning (October 26) I introduced Wakley's catheter into the bladder, and in doing this I had to pass the instrument through two strictures—one in front of the bulbous, and the other in the membranous portion of the urethra. The canal was dilated up to the last tube (No. 10). Though the patient suffered a great deal during the operation, he did not consent to the use of chloroform. Soon after the operation he had a severe rigor, followed by fever, and suffered from the latter for about two hours. He began to pass his urine in a full stream, and about four days after the operation No. 10 catheter was easily introduced into the bladder.

Case 6.—Organic Stricture, with a Fistula and Ulceration of the Perineum—Dilatation of the Urethra with Wakley's Instruments in two sittings—Recovery.

G. H., aged 25, male Mahomedan, was admitted into the Hospital on November 22, 1871, with a very long-standing and permanent stricture of the urethra, the result of previous attacks of gonorrhœa. He has also a large fistula and deep ulceration of the perineum. The man is almost a skeleton, with contraction of the legs from long confinement to his bed, and is not able to pass his urine or motions in any other but the recumbent posture. The stricture is in the bulbous portion, and the urethra anterior to it is almost impervious. No urine escapes through the latter, but the whole of it passes out through the fistula. Having with great difficulty passed Wakley's catheter into the bladder under the influence of chloroform, I dilated the urethra up to No. 7 tube. No. 7 catheter slipped into the bladder easily after the operation. While passing the catheter, I found that, besides the great constriction of the canal in front of the fistula, there were two strictures—one about the bulbous, and the other in the membranous portion. I was assisted in this operation by Hospital Assistants Davesagayem and Ramakistna.

September 24.—Passes his urine in a small stream through the meatus urinarius, and also through the fistula. ℞. Opii gr. j., quiniæ sulphatis gr. ij., ft. pil., j. three times a day.

29th.—Continues to pass the urine through the urethra as well as the fistula, but comparatively little through the latter. I operated on him again to-day, and dilated the urethra to its full extent (No. 10 tube). After the operation, No. 10 catheter slipped into the bladder very easily. I was assisted during the operation by Mr. Ramsbottom and Hospital Assistant Davesagayem. The ulceration in the perineum is to be dressed with warm-dressing.

December 2.—Ever since the second operation the urine has been passed wholly through the meatus urinarius, and not a drop from the fistula. The latter appears to be closed, and the ulcer in the perineum is fast healing. The stream of urine is of full size.

4th.—The fistula is quite closed, and the ulcer in the perineum is filled up with granulations, and healing. Urine continues to be passed freely and in a full stream from the natural passage. From the use of nourishing diet, etc., he is so far improved in his condition that he is able to sit up and pass his urine.

Discharged at his own request.

December 24 was the last date on which I saw this man, and he was then perfectly cured of every complaint except the contraction of the legs.

Remarks.—The cases I have just detailed are fair examples of the use of Wakley's instruments in permanent or organic stricture of the urethra. In all these cases the urethra was more or less dilated at one sitting, and the relief afforded by the operation was immediate as well as permanent. In three out of the six cases the stricture was accompanied by a fistula in perineo, and the latter was also cured by the dilatation of the urethra with Wakley's instruments. The catheter in Wakley's instruments is smaller than No. 2, and the operation is not only very successful when the catheter is introduced into the bladder, but is also attended with more or less success when it has passed into the urethra only as far as the bulbous or membranous portion. Knowing this from my previous experience of the instruments, I dilated the urethra in Cases 1 and 3 before the catheter had reached the bladder, and the result was favourable in both. In Case 1, after passing the catheter beyond the stricture in front of the fistula, I still found the urethra more or less constricted; but this constriction not being so tight as the stricture itself, I could have introduced the instrument into the bladder if I had persevered for some minutes more. The patient, however, being already too long under the influence of chloroform, it was considered dangerous to delay the operation any longer, and I therefore finished it as fast as possible without passing the catheter into the bladder. The stream of urine in this case was very full after the operation, and continued to be so permanently. The fistula, too, in this case was healed very rapidly—viz., within a week after the operation. In Case 3, the urethra being very hard and cartilaginous about the membranous portion, the catheter was stuck firmly in that part, and could not make its way beyond it by the use of any reasonable force. After trying in vain for a long time, I dilated the urethra. The patient in this case did not incline to make water immediately after the operation, as generally is the case; and when he did incline to do so, about an hour afterwards, he found a little difficulty on account of some small coagula of blood in the urethra. After a little straining, however, the urine began to flow, first in drops, then in a small stream, and finally freely and in a moderate stream. There was no more obstruction in subsequent micturitions, and the urine never passed again through the fistulæ, although he was under observation for about a fortnight. As the stream in this case was not of the largest size, it was a proper one for another sitting, and had the patient consented to it the operation would have been performed much more easily than on the first occasion. In all such cases of partial relief, Wakley's catheter is easily introduced into the bladder if tried a few days after the first operation, and the dilatation of the remaining portion of the urethra is also very easily effected. The patient, however, was very timid, and not having passed his urine through the natural passage for some months previous to this operation, except by drops, he was quite satisfied with his being able to void it in a stream, whether it was very large or not, and did

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not consent to be operated upon again. Being an out-patient, he discontinued his attendance at the Dispensary when spoken to repeatedly on the advisability of another operation. The patients in Cases 2, 4, 5, and 6 were cured perfectly and permanently of the disease, and continued to void their urine in the largest stream. These cases speak for themselves and require no further comment. From my experience of Wakley's instruments, I consider them to be the best of all the means proposed for the cure of organic stricture of the urethra, and if there are any cases at all that cannot be more or less benefited by their use, they must be very few. Holt's dilator is also a very useful instrument, but it is inferior to Wakley's in some respects. It is much larger than Wakley's catheter, being generally about the size of No. 4 or 5, and therefore not available in many severe cases unless they are prepared previously by the use of small catheters. Again, Holt's dilator is formed of two blades joined at the lower or smaller end, which is to be introduced into the bladder, and they are capable of diverging by means of a screw or by a tube or rod passing between them. As long as the blades are joined at the lower end, their divergence, in whatever way it may be effected, will necessarily be much less at that end than at the upper. This instrument is, therefore, less effective in dilating the strictures nearer to the bladder than those nearer to the meatus urinarius. On the whole, both these instruments are extremely useful in the treatment of permanent or organic stricture, and demand the careful attention of surgeons in India, where, I believe, the disease in its most neglected and protracted form is more frequently met with than in Europe.

(To be continued.)

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Medical Times and Gazette.

SATURDAY, MARCH 7, 1874.

THE TICHBORNE CASE.

In our number for March 16, 1872, just after the first Tichborne trial had been stopped by the jury, we observed that "We had intended giving a commentary on the medical points in the case," but that really we felt that after the unprecedented duration of the trial and daily publication of the evidence, curiosity was for a time sated, and the "Tichborne Case" fell flat on the public ear. Moreover, as the "Claimant" had been committed for trial on a charge of perjury in having sworn that he was Roger Charles Tichborne, we could not criticise the medical evidence which had in the first trial been brought forward against and in support of his claim. We contented ourselves, therefore, with remarking that identity is of two kinds, mental and bodily; with briefly pointing to the apparently enormous differences, mental and physical, between the "Claimant" and the man he asserted himself to be. The first trial, the one we then alluded to, lasted 103 working days; the second, the trial for perjury only just concluded, has occupied 188 working days, and has resulted in the complete and absolute demolition of the prisoner's claims, and his conviction of gross and most atrocious and abominable perjury. But, though we are now quite free to examine and criticise the medical evidence with the utmost freedom, we do not propose to say anything about it; for in the first place it appears to us that almost all the medical evidence that has been adduced—all of any scientific value and weight—pointed in one direction,—was positively against the prisoner's identity with Roger Charles Tichborne, or was but very feebly in favour of it; and secondly, the medical evidence was not at all necessary, and, we venture to say, did not in the least contribute to the disproof of the asserted identity. The long brown congenital mark which the prisoner has on one side of the body, and which R. C. Tichborne had not, and the tattoo markings which R. C. Tichborne had, and the prisoner has not, were quite enough to settle the question of identity on physical grounds, and no medical evidence was needed to prove their presence or absence. But though the medical man can learn but little, we think, from the medical evidence in the trial, the case is very different with regard to the trial as a whole, and especially with regard to the summing-up by the Lord Chief Justice. No busy man in our profession can have spared the time and labour required to study the evidence day by day all through, but to many it may have been possible to find or make time to study the Lord Chief Justice's charge; and a careful study of that is an education in the marshalling, summing-up, and weighing of evidence, and may therefore be made to give teaching of very special value to the practitioner of medicine.

The great question in the trial was, the Lord Chief Justice observed, a question of identity; and identity may be a very difficult point to determine. One man might resemble another; but, whatever outward resemblances there might be, "no two men were ever alike within. If there could be two alike to begin with, the mind and memory would very soon cease to be the same, for since the Creation no two lives were ever the same, and therefore no two men were ever the same. The acquirements of education and the influence of the passions would soon work a change. If one man claims to be another, it may fairly be asked if he knew what passed in the mind of the man he claims to be, and in this case we happen to have such knowledge before us." Roger Tichborne was an habitual letter writer, and from his correspondence we become acquainted with the events of his life, and with the thoughts, feelings, and passions which were at work within him, and are enabled to track him step by step through all the phases of his life, so as to know his hopes and intentions. The jury would have, the Lord Chief Justice remarked, to make themselves thoroughly acquainted with the character, course, and incidents of the real Roger Tichborne's life; they would have to distinguish between real and genuine recollection and knowledge acquired by recent information, and not the result of memory; the true test of identity being consciousness, which practically resolves itself into memory. And he then, as the first part of the work he had to do, endeavoured to place before them a picture of "the physical, the intellectual, the moral, the undoubted Roger Tichborne as he lived." All must admire the power, sharpness, and accuracy with which this picture was drawn, and but very few, we imagine, will differ from Mr.

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Justice Mellor's opinion that the Lord Chief Justice succeeded in presenting "to us a portrait of all that is remarkable in the moral, intellectual, and, I may say, physical character of Roger Tichborne, so that we may almost feel that we have a personal acquaintance with him." And so all throughout, to the pitiless final summing-up of the evidence against the defendant, the charge displayed "a masterly and marvellous arrangement of facts, perfect accuracy of the details, and high analytical and synthetical power." It is a grand lesson in the art of sifting and weighing complicated, confused, and apparently contradictory evidence, and the logical, artistic ordering of facts; and a valuable exposition of the principles on which questions of identity should be examined. And for these reasons we notice it here, and recommend the study of it as a most excellent mental exercise for the medical practitioner.

PROFESSOR HUXLEY AT ABERDEEN.

Professor Huxley's projects for university reform remind us of the performances of Hercules in cleansing the stalls of Augeas. If clearness of perception and vigour of expression in detecting and demonstrating grievances were of themselves sufficient to induce a reformation, the exordium of the Aberdeen Lord Rector would be as effective in its sphere as the diverted courses of the Alpheus and the Peneus were in flushing the classic stables. But Professor Huxley labours under a disadvantage from which the earlier Hercules was exempt. Nobody could doubt that a thirty years' accumulation of the refuse of the three thousand cattle of Augeas called for immediate and unreserved removal; but Professor Huxley's experience has already taught him that there is, and will be, a great difference of opinion regarding what should and should not be removed from the stalls of "the fat and lean kine" of the Scottish and English universities. As the learned Lord Rector himself says, he has spent twenty-five years of his life "in no half-hearted advocacy of doctrines which have not yet found favour in the eyes of academic respectability." It is some obstacle in the way of the immediate execution of Professor Huxley's programme, that "academic respectability" is addicted to the promulgation of doctrines of its own, and that owing to original differences of mental constitution, a marked dissimilarity of associations, and an unavoidable regard for vested interests, the issue is involved in intricacy. Professor Huxley himself anticipates that the realisation of his policy will be witnessed, not by himself, but by his successors. He entertains strong impressions that, though himself defeated, his counsels will finally prevail, not on the ground that

"All things come round to him who will but wait,"

but because they spring from the principle of constructing what is yet an ideal university, "in which thought is free from all fetters, and in which all sources of knowledge and all aids to learning should be accessible to all comers, without distinction of creed or country, riches or poverty."

The general bearing of Professor Huxley's address has been already discussed to an extent which indicates that, whatever may be the number of his followers, he stands high in the estimation of a public which admires intrepidity in aggression, and readily extends to the "practical man" a large measure of cordial, if not well-defined, approbation. It is only to the discussion of the Lord Rector's remarks on medical studies and examinations which we are required to turn. On the subject of medical studies, Professor Huxley takes a different attitude from that which might have been anticipated. He disapproves of the system which compels the university student to occupy the first portion of a four years' curriculum with a study of zoology, chemistry, and botany, a knowledge of which does not tend to fit medical men for their professional duties. He holds that a student ought at once to enter upon a practical course, commencing with anatomy and physiology, and ending with the subjects bearing directly upon the detection and treatment of disease. We are certain that the students to whom Professor Huxley directed an appeal whether or not this would be a proper measure must have been almost unanimous in their approval. Students of medicine are, as a rule, enthusiastic and energetic at the commencement of their professional course; but when they find that the first eighteen months of their curriculum has by compulsion to be devoted almost exclusively to the acquisition of a knowledge of the details of zoology and botany, their enthusiasm is not uncommonly converted into a *cui bono* indifference. They too frequently endorse the opinion ascribed to a celebrated Edinburgh surgeon, that a three months' course of cutlery would be more beneficial to them than the same time spent in the study of general botanical science. After eighteen months' delay they enter with crippled energy and blunted enthusiasm upon the exclusive study of technical subjects, and only two and a half years remain to the majority of them for the acquisition of strictly professional knowledge and dexterity. There are many considerations antagonistic to the rude alteration of established methods of university study; but we cannot help thinking that one of the first modifications of the present system will be the acceptance of a knowledge of the collateral sciences as a part, not of professional, but of preliminary education.

Professor Huxley's remarks upon the value of examinations as at present generally conducted will meet with the approval, not only of many professors, but of many successful and unsuccessful students. Entirely independent of the reprehended element of cramming, a written examination fixed for a certain date is a fallacious test of acquired knowledge. In many instances, acute students, by a study of an examiner's character and a searching comparison of his former papers, can "spot" about 50 per cent. of the questions before the examiner has written them. Such a sweeping limitation lessens considerably the labours of the sagacious competitor; but the result is that he ignores a mass of information, which, though useless when regarded in the light of his examiner's idiosyncrasy, may still be practically indispensable. And even to a more conscientious student, "that which examination, as ordinarily conducted, tests is simply a man's power of work under stimulus, and his capacity for rapidly and clearly producing that which for the time he has got into his mind." Such is Professor Huxley's view, and we may venture to affirm that this opinion at least will not be controverted by the general voice of "academic respectability."

THE DEBATE ON PYÆMIA AT THE CLINICAL SOCIETY.

This debate was reopened on Friday evening, February 27, by Mr. Callender. Objecting to the term "pyæmia" as misleading, he is in the habit of arranging surgical cases of blood-poisoning into three groups—(1) those in which the poison is derived from the irritating and acrid secretions poured out by wounds in their first stage; (2) those which arise from the absorption of decomposing fluids and tissues at the seat of wounds during some of their later stages; and (3) cases of thrombolosis. Mr. Callender's remarks had chiefly a clinical bearing, and were directed especially to the treatment of wounds best suited to prevent blood-poisoning. He laid great stress on what he calls the proper aëration, ventilation, drainage, and cleansing of wounds. Rest to wounds he considers all-important, for by proper rest the granulations remain uninjured, and thus offer resistance to the passage of noxious materials. He quite agrees with Billroth and Savory, that, as long as healthy granulations exist in their integrity, the passage of matters from without to within is impossible; but if mechanically injured, fluids can pass through them into the blood.

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Wise as is Mr. Callender's opinion on the prophylactic treatment of blood-poisoning, and judicious as results have proved his precautions to be, his remarks had no particular bearing on the subject of Mr. Hewett's address, confined as they were to the occurrence of blood-poisoning in persons with open wounds and in hospital wards.

Mr. Barwell and Mr. Durham each bore testimony to the main feature brought out by the President's paper—viz., the occurrence of pyæmia in private practice. Each referred to cases which he had met with in his own private practice. Mr. Durham made a point of the fact that in two out of five cases to which he referred, the pyæmia had set in before a hospital surgeon had been called; and he protested strongly against the inference sometimes drawn, that hospital surgeons convey pyæmia to their private patients, and therefore ought to withhold themselves from operating in a certain class of cases.

Mr. Brudenell Carter, while agreeing with Mr. Hulke in distinguishing septicæmia from pyæmia as resulting from experiments upon animals, does not think there can be any hard-and-fast line drawn between them in the human subject; for as we meet with cases of blood-poisoning at the bedside, the one passes into the other through an innumerable series of gradations. In referring to gonorrhœa in connexion with pyæmia, he stated his conviction that gonorrhœa is, as he has long taught, a constitutional disease, and not a mere local inflammation of a mucous membrane. It shows itself to be constitutional in some patients, and he mentioned the case of a young man, who, at the time of having a discharge from the urethral mucous membrane, suffered also from severe ophthalmia of the left eye (not due to contact), and also from double pneumonia. In this patient, Mr. Carter believed the urethritis, the ophthalmia, and the pneumonia were all local expressions of the same general disease—gonorrhœa.

Mr. Cadge, of Norwich, spoke as to the frequency of pyæmia in the Norfolk and Norwich Hospital, which persisted to assert itself, in spite of every effort, to such an extent that serious thoughts are entertained of the necessity of rebuilding the Hospital. He considers that the great increase of late years in the number of severe cases treated in the Hospital has had much to do with the prevalence of pyæmia there. In private practice he has only met with one, and that a doubtful case of pyæmia. He had been astounded at the immense want of uniformity in the experience of different leading London surgeons as to the frequency of pyæmia in private practice. After analysing all the possible grounds of this want of uniformity, he could only account for it by supposing that what one would call pyæmia another would not. He had studied Mr. Prescott Hewett's cases, and came to the conclusion that several of them were not such as he (Mr. Cadge) would call pyæmia. It seemed clear, however, that Mr. Cadge's views of pyæmia are a good deal influenced by the fact that the larger number of the cases in his experience have followed operations upon the bladder and rectum, after which abscesses in the abdominal viscera are especially liable to form. In good-humouredly making the suggestion that patients requiring operation should forego the greater skill of London for the greater safety of the country, Mr. Cadge for a moment lost sight of the plague he had referred to at the Norfolk and Norwich Hospital, which proves that in hospital practice at least the country can guarantee no great amount of safety from pyæmia.

Mr. Cadge set a good example in coming up to tell us his observations of pyæmia in country practice—an example which, if followed by other provincial surgeons, would tend vastly to enhance the interest of the next and final meeting on this subject, on Friday, the 18th inst.

Mr. William Adams referred to the prevalence of the disease for a time in the Great Northern Hospital; and Dr. Stewart, who took exception to the view that pyæmia was entirely a surgical disease, alluded to his experience some years ago of its occurrence after typhus fever in the Glasgow Fever Hospital.

On the motion of Mr. Hutchinson, seconded by Mr. Hulke, the debate was adjourned until nine o'clock on the evening of the next meeting of the Society.

THE DISCUSSION ON CANCER AT THE PATHOLOGICAL SOCIETY.

The discussion on cancer, which was commenced at the Pathological Society on Tuesday evening last, has assumed a character which is essentially English. In any other country but our own we should generally expect a society of pathologists so-called to undertake the elucidation of points purely histological in the discussion of a special subject. This is found to be the case, for example, in Germany, where pathological anatomy is a subject *per se*, and where its votaries are the recognised leaders of research and opinion. One of the most urgent questions of the day in the German pathological world is this same one of cancer, but the issue at the present moment is distinctly limited to the anatomical origin or source of the disease. Does cancer grow from epithelium, or from connective tissue, or from both? is the problem under solution. The same might be said with much truth of their investigations on tubercle. Even when the Continental pathologists pass a step beyond mere anatomical structure, and deal with the causation, "nature," and relations generally of the great diseases, such as cancer, tubercle, and syphilis, we find them relapsing into germs, bacteria, and minute anatomical conditions, to which the most complex processes may be referred. The greatest only among them have, by their extensive knowledge and wide grasp of general principles, come to study the whole natural history of these diseases. On the other hand, the pathologists of this country are distinguished for just such an extensive knowledge of disease as we have indicated. Less intimately acquainted, perhaps, with the histology of cancer or tubercle, they combine with what knowledge of this they do possess such a knowledge also of the disease as it manifests itself *intra vitam*, of the circumstances of its appearance, progress, and termination, its relations to other morbid conditions, to the individual, and to the history of his family, as entitles them to hold and express definite opinions on the broad question of its whole natural history, or on any part of the same.

The present question proposed for discussion at the Pathological Society is an excellent illustration of the truth of what we have said. It is—"the relations of cancer to the organism, whether in its natural or its morbid condition." Here is a subject which exceeds in its magnitude the province of the simple pathologist. It demands at the same time clinical knowledge of the most extensive and accurate kind. And yet such is the system of English medicine, that there are probably few societies where such experience could be more readily detailed than at the Pathological. As the question is one of the most natural for a member of the profession in England to ask, so it is happily one which its most distinguished leaders are well qualified to attempt to answer.

With a profound knowledge of cancer in its every relation, which he has acquired in the extensive field offered by the special wards of the Middlesex Hospital, Mr. De Morgan very appropriately opened the discussion. The heads of Mr. De Morgan's thesis were published by us last week, and his paper will be found *verbatim* in another part of the present number. We will not, therefore, do more than allude in this place to the position which Mr. De Morgan has definitely taken up, and is prepared to maintain—namely, that cancer is a combination of local and constitutional

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disease, and that "the disease while presenting certain special characters, does not differ essentially in its mode of origin from many or most other morbid growths."

It will be seen that the local origin of cancer was especially insisted upon, while at the same time due weight was given to a favourable constitutional antecedent. In combating the theory of the blood origin of the disease in detail, Mr. De Morgan indirectly supported the theory of its local commencement. Once formed, cancer is easily diffused, and this diffusion, says Mr. De Morgan, "can be readily accounted for, without calling in a pre-existing or concurrent disease of the blood." The whole paper will be found to be a collection of the most important facts in the natural history of cancer, skilfully arranged to form a continuous argument in favour especially of the local origin of cancer.

Mr. Simon was the first to reply to Mr. De Morgan, and while agreeing with much that he had said, objected decidedly to several important points. In the first place, he laid more stress than Mr. De Morgan seemed to do upon the importance of the constitution etiologically, as seen in hereditary predisposition, especially when considered beside the failure of all attempts at artificial inoculation; secondly, he dwelt at some length on the specificity of cancer. Searching for the nature of this specificity, he failed, he said, to find it in the anatomical form of the disease, in its liability to relapse, or in the original plurality of its occurrence. The specificity was none of these; but something *sui generis*—the exercise of "an influence which can be called nothing but impregnative or spermatic." This influence manifests itself, not as an entity, but by certain developmental effects which follow the pattern of the original disease; or, to express the same anatomically, the specificity of a cancer is evidenced not by the growth in healthy tissue of a cell which has been carried to it from the original tumour, but by the transformation of the elements of the healthy tissue itself into cancer structure. Thus cancer is naturally brought, as it ought to be, into relation with tubercle and syphilis. It resembles tubercle in its infective properties—properties which bring its poison into intimate connexion with the septic ferments—and in the constitutional predisposition to it in its subjects. It resembles syphilis in the history of its course—the primary affection, the glandular invasion, and the tertiary or visceral infection. Mr. Simon laid special stress upon the relation between cancer, tubercle, and syphilis. While he would not insist upon an *ab extrâ* source of cancer, he pointed to the similarity of the processes in the three diseases, from first to last, as sufficient to justify their classification under a common head.

Mr. Hutchinson followed Mr. Simon in support of Mr. De Morgan's views. Insisting on the local origin of cancer, he pointed out the enormous clinical importance of a full knowledge and belief of this fact. He combated Mr. Simon's theory of the specificity of cancer, and adduced as an argument against it the fact of the ready transmutation of cancer into innocent growths in the course of its transmission from one generation to another. In a cancerous family, also, the disease might sometimes appear as one form of malignant disease, and sometimes as another; and it was certain that cancer could be grown out of an innocent tumour by careful irritation. Indeed, Mr. Hutchinson has already published the details of a method for converting a simple into a malignant ulcer.

The discussion will be resumed on Tuesday, the 17th inst.

THE WEEK.

TOPICS OF THE DAY.

In his monthly report on the health of the Parish of St. Marylebone for January last, Dr. Whitmore refers to a very important clause (which cannot have too much publicity) in the Water Companies Act of 1872—namely, that the Act requires that all waste-pipes from water receptacles should be entirely disconnected from the drains. He adds, "Waste-pipes must now be converted into what are termed 'warning pipes,' and must empty themselves above ground where they can be seen. This clause in the Act was designed by the water companies to prevent the waste of water; it accomplishes a higher and far more important object—it prevents the waste of human life." We trust the water companies will enforce this clause, not only for their own protection, but for the protection of the public health. It is a duty which they ought not to neglect, seeing how frequently death is caused by sewer gases through waste-pipes from the water-cisterns passing directly into the drains. Dr. Whitmore's present allusion to this clause was induced by a fatal case of enteric fever in the parish, which we regret to say was that of a gentleman of high professional reputation as a consulting surgeon, resident in Harley-street. A careful inspection of his house showed that its sanitary arrangements were generally very good, but there existed this serious defect: the waste-pipes from the water-cisterns passed directly into the drains; and assuming the pipes to be—as they usually are—imperfectly trapped, sewer gases would ascend through them from the drains into the cisterns, where they would speedily be absorbed by the contained water. How far this condition of things may have contributed towards the destroying of a valuable and useful life it is difficult to say, but the bare possibility of its having done so is surely sufficient to operate as a warning to all householders.

For some time past, as our readers are aware, an unpleasant dissension has existed between the Committee of King's College Hospital and the nurses connected with St. John's House. These ladies appear to have given dissatisfaction to the Committee of the Hospital on several occasions. Notice was accordingly given to them that their connexion with the Hospital must cease at a given period. This proceeding has given rise to much correspondence and discussion. The subject was submitted to a General Court of Governors of the Hospital, held last week, at which it was eventually determined to submit the subject to arbitration. Lord Hatherley and Lord Selborne were appointed arbitrators. It is to be hoped that the matter may be settled amicably, and further dissension avoided by adopting a system of mutual forbearance.

It is worthy of notice that on an application by the Halifax vaccination officer to the bench of the borough, in a prosecution under the Vaccination Act, the case was dismissed on the ruling of the clerk that the vaccination officer had not a written authority from the guardians to show that he was their officer. It may be well, in order to prevent similar objections, for vaccination officers to be provided with an official certificate of their appointment.

Dr. Graham, in a lecture delivered on Monday evening at the rooms of the Society of Arts, on "Beer," stated that on the question of adulteration there had been a great deal of exaggeration, and that for the most part the only adulteration resorted to was the introduction of the harmless fluid with which dairymen were not unacquainted—water.

The 17th of October next has been fixed upon by the Hospital Saturday Committee for a simultaneous collection in the various works in London in aid of the hospitals.

At the Quarterly Court of the Governors of the Hospital for Consumption at Brompton, held last week, it was reported that two more houses had been fitted up and furnished, thus increasing the accommodation at the South Branch to thirty-six beds, and making a total of 246 beds in use.

The subject of providing dwellings for our artisans and others of the labouring classes on the vacant spaces belonging

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to the Board, was brought before the Metropolitan Board of Works at their meeting last week. A deputation waited upon the Board, and presented a memorial on the subject, which expressed the hope that "the Board would take into its earnest consideration the desirability of occupying the various vacant spaces in its possession, by the erection of residences adapted to the wants of the working classes." The memorial, we are glad to say, was referred for consideration to the Works and General Purposes Committee of the Board; and we hope that, with a proper appreciation of the importance of the matter, the deliberations of the Committee will result in the adoption by the Board of some practical measures to supply a most urgent need for the welfare of our metropolitan working population.

A numerously attended meeting of the inhabitants, tradesmen, and vestrymen of Peckham was held on Tuesday evening, for the purpose of forming an association to assist the Vestry in carrying out the Adulteration of Food Act with impartiality and justice to the tradesmen and consumers. The officers of the association having been elected, the following resolution was carried unanimously:—"That this association is formed for the purpose of assisting in carrying out the provisions of the Adulteration of Food, Drink, and Drugs Act, so that, while it will effectually protect the purchaser, it will not weigh unjustly upon the trader; and the meeting pledges itself to watch the interests of all trades, furnish legal assistance and competent analysts if necessary, and to assist the public to obtain unadulterated articles."

In London, 1754 deaths were registered last week; of these seventy-five were from measles.

Dr. Tidy has been elected Food Analyst for the City of London for the ensuing three months.

THE ASHANTEE WAR.

The startling items of intelligence which reached this country by telegram *vid* Madeira and Lisbon as we were going to press last week have not since been supplemented by any further details, and it is scarcely likely we shall get later news of Sir Garnet Wolseley and his gallant little army before the 8th or 9th inst.; meanwhile, we must content ourselves with the knowledge that after five days' hard fighting, including the battle of Amoaful, the list of casualties amounted only to three hundred. Of this number we are of opinion that it will be found the percentage of deaths to wounded is very small. There is no doubt that the Ashantees were, fortunately for us, much straitened for ammunition, as a natural consequence of which the wounds inflicted by them will prove to be rarely fatal, not often even severe or dangerous. We are induced to hazard this belief from an inspection which we recently made of an Ashantee gun brought off the field after the engagement at Abrakrampa—an old flint-and-steel piece of the ordinary Birmingham pattern, incapable of carrying any distance with certainty or precision, and looking altogether more likely to be dangerous to its possessor than to any other person. Sir Garnet also, in his brief telegram, reports that the troops are generally in good health. The excitement of active service, with a dash of fighting thrown in, will have been more effectual than even quinine itself in checking the spread of sickness; and so far we may congratulate ourselves upon the state of affairs down to February 5 last.

Sinister rumours have since been circulated to the effect that our troops had been attacked and surrounded on their way back to the coast; but as the Government itself denies having received any information of this kind, they may very fairly be considered as untrue. Nevertheless, seeing that a treaty of peace would have little weight with a savage monarch like King Koffee, who is himself, moreover, a good deal in the hands of his principal captains—men who have all along urged resistance to our advance,—it is to be hoped that the lesson of Amoaful, and of the succeeding days, may have had a salutary effect upon the Ashantee braves, otherwise it may have fared badly with our convoys of sick and wounded on their way from the front to the coast.

Transport difficulties are reported to be still unchanged, native carriers being even now unobtainable in any numbers. The Kroomen have conveyed all stores for the Naval Brigade since the Prah was crossed, and the men of the 2nd West India Regiment have done good service in transporting stores for the expedition. It may, indeed, be inferred how zealously all have worked when it is considered that, in the face of all obstacles, food, ammunition, and physic sufficient for the wants of the campaign have been got up to the front from Cape Coast Castle. But if Sir Garnet has really been harassed in his return to the Prah, this want of transport will sadly hamper him. Three hundred sick and wounded men would of themselves absorb a large number of bearers, whilst every skirmish must of necessity increase any difficulty experienced in this direction. Again, it must be remembered that time will soon begin to press upon the Commander-in-Chief, who must have withdrawn all his men—not only from the bush, but from the coast itself—before the rains set in. The next telegrams will therefore be somewhat eagerly looked for to set at rest the uneasy feeling which has been excited on the subject of the return march from Coomassie.

Consequent upon the news which has reached them of fighting having actually taken place, the Government has decided to send out another large transport to assist in bringing home the European regiments. This will prevent any over-crowding, and obviate the risk of bad results which might arise from it. It is proposed to send out in her an additional hundred men of the Army Hospital Corps, to assist in nursing and attending on the wounded; but as the vessel is not expected to leave before the 8th inst., it is just possible that the order for the embarkation of these men will be countermanded, if by that date intelligence shall have been received from Sir Garnet Wolseley, announcing his arrival at Cape Coast Castle and the speedy shipment of the troops for England—in which case this detachment of the Army Hospital Corps would not arrive out in time to be utilised.

Very good reports continue to be received from the convalescent depôt ship *Simoom*, at St. Vincent. The invalids, revived by the voyage from the Coast, speedily recover strength, and are soon in a condition to be drafted to this country as the opportunity occurs.

THE OBSTETRICAL SOCIETY.

The decision arrived at by the special meeting of the Obstetrical Society on Wednesday last will not cause surprise to anyone. That a large meeting of the Fellows should have decided almost unanimously that it is unadvisable to admit women into the Society was only what was expected on all hands. But what really was surprising, was that the advocates of this movement should have taken so little trouble, either by their presence or their arguments, to further the cause they had taken up. Of the twelve gentlemen who had signed Mrs. Anderson's paper, only six were present, and of these six, only two could be said to have spoken in favour of the admission of women, and they in the most qualified manner. The President having explained—or, we had almost said, apologised—for the signatures, on the ground that he for one had thought that the best way was to let the matter take its course and come to the ballot, then stated the object of the meeting to be to settle the question, once and for all, of the interpretation of the by-law of the Society as to the admission of Fellows. Dr. Murray then moved "That the by-laws of the Society do not admit of the nomination of Females as Fellows of the Obstetrical Society." Drs. Savage, Squire, Wynn Williams, Graily Hewitt, and

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Cleveland followed on this side, and all agreed that the admission of women was not contemplated, and was against the spirit of the by-laws as originally framed. Dr. Taylor, of Camberwell, forcibly alluded to the dangers that the Society would encounter if ladies were admitted, especially the large secession of Fellows that would at once take place, and humorously remarked that he was pleased to meet the ladies anywhere except in the Obstetrical Society's rooms. On the other side, Dr. Steele, of Liverpool, Dr. Aveling, and Dr. Routh thought that the by-laws could be interpreted otherwise; and although all agreed that women were quite unfitted for the practice of the obstetric art, yet they saw no great objection to the admission of them into the Society. Dr. Galton proposed, however, to take the feeling of the Society more directly, by moving as an amendment "that the by-laws be so altered as to allow of the admission of women as Fellows of the Society." He considered, that as the Society had been founded for the advancement of obstetrics, if this could be gained by the admission of women it was fatal policy to exclude them. He quoted the celebrated examples of Mesdames Boivin and Lachapelle, and, though agreeing that women were unfitted for obstetric practice, yet they being here and qualified, should not, he thought, be excluded, especially as he considered that nothing was conceded by admitting them. This amendment having been seconded by Mr. Kisch, the vote was taken in the usual manner, four hands being held up in favour of the amendment and the remainder against it. On Dr. Murray's motion being put, one hand only was held up against it. A hundred and six Fellows were present. Dr. Cleveland expressed an opinion at the end of the proceedings that the by-laws should be capable of interpretation by the Council, and he hoped that such a meeting of the Fellows would not have to be again summoned for this purpose. This opinion seemed to be that of a large majority of the Fellows present.

DRINK AND HEALTH.

The article in *Good Words* (for February), written by the Rev. Canon Kingsley, with the quaint title "The Tree of Knowledge," is one well deserving the attention of every medical man and sanitarian. In his characteristic way the writer casts aside the conventional opinions of the period, and the fruitless talk about the evils of drunkenness, and the much-bepraised remedy of total abstinence. He is ready to admit that drunkenness is on the increase in this island, because he finds its causes on the increase—"overwork of body and mind; circumstances which depress health; temptation to drink, and drink again, at every corner of the streets; and finally, money, and ever more money in the hands of uneducated people, who have not the desire, and too often not the means of spending it in any save the lowest pleasures." In these circumstances does he find the true causes of drunkenness, and draws the important general inference that "the craving for drink and narcotics, especially that engendered in our great cities, is not a disease, but a symptom of disease—of a far deeper disease than any which drunkenness can produce; namely, of the growing degeneracy of a population, striving in vain by stimulants and narcotics to fight against those slow poisons with which our greedy barbarism, miscalled civilisation, has surrounded them from the cradle to the grave." The conditions of life of too many of our working classes are such as depress vitality, and are not counteracted in their effects by the good food and ample wages most of those classes can now command. These people in their mental and moral condition are unhappily in harmony with the wretchedness around them. They know no recreation beyond low animal pleasure; they drink for the brutalising excitement to be got from their liquors, to drive away care, and often simply to drive away dulness. "But if the craving for stimulants and narcotics is a token of deficient vitality, then the deadliest foe of that craving and all its miserable results is surely the sanitary reformer; the man who preaches, and, as far as ignorance and vested interests will allow him, procures for the masses pure air, pure sunlight, pure water, pure dwelling-houses, pure food. Not merely every fresh drinking-fountain, but every fresh public bath and washhouse, every fresh open space, every fresh growing tree, every fresh open window, every fresh flower in that window—each of these is so much, as the old Persians would have said, conquered for Ormuzd, the god of light and life, out of the dominion of Ahriman, the king of darkness and death; so much taken from the causes of drunkenness and disease, and added to the causes of sobriety and health." Much else breathing eloquence and truth may be read in the article from which we have quoted, and may be pondered upon advantageously by those who fain would coerce their fellow-men to become sober and religious, or work out their reformation by preaching and "spiritual exercises."

MAJOR SYNGE ON DISINFECTANTS.

A paper was read last week, at the United Services Institution, by Major-General Synge, R.E., "On Sanitary Improvements." Surgeon-General Mouatt, V.C., presided. Major-General Synge held that water and other fluids were the great carriers of infection, whilst the germs of malaria were most effectively destroyed by fire. Next to fire came charcoal, which was quite as effectual, and more universally applicable. Charcoal, on a plan suggested by him (Major-General Synge), had been used extensively as a disinfectant in several large hospitals, especially in Glasgow, from whence he had received the most satisfactory testimonials from the hospital physicians and surgeons. He ridiculed the use of water as a purifier and disinfectant in hospitals, where, if it removed impurities from one spot, it only carried them to another. The people of London drank water defiled by the sewage of half a million of people who lived above them on the river, and cast it out again with their own additions for the use of those who lived below. The object was to provide a carrier for infection, which, whilst it carried, would destroy, and not merely disseminate the poison. He complained of the sites selected for barracks at our various military stations, and urged that some improvement in this particular would very much diminish mortality amongst soldiers. The general object of the reader was, it appeared, to show that the use of chemical agencies in the purification of fluids was inoperative and expensive; that the use of water merely transported and disseminated the poison; and that either mode, besides being mischievous, would be so expensive as to exceed the pecuniary resources of any nation. The effectual, inexpensive, and universally applicable disinfectant and deodoriser was charcoal, the efficacy of which had now been established.

POISONING BY CROTON OIL SEEDS.

An extraordinary case of accidental poisoning has just occurred in the South of Ireland. Last Monday morning (March 2), various articles were washed ashore in Waterford Harbour, apparently from a Dutch vessel which is supposed to have foundered at sea during the severe gale of last week. A few hours previously, on Sunday evening, a large quantity of foreign nuts, as the country people thought, in size and shape resembling an English bean, were washed ashore in Tramore Bay, further down the coast. Some of these were eaten by twenty-four persons, all of whom became alarmingly ill. Specimens of the "nuts" were forwarded by Mr. Barron Newell, J.P., Tramore, to Dr. Charles A. Cameron, of Dublin, for analysis. They proved to be seeds of *Croton Tiglium*. Dr. Cameron immediately communicated the result of his examination, with a warning as to the poisonous properties of the "treasure trove." We believe that no fatal consequences have ensued from the indiscretion of the sufferers.

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THE HOME OF THE GENERAL MEDICAL COUNCIL.

We are glad to learn that a home has really been found for the General Medical Council. The following letter from the President of that body to the late Home Secretary not only informs us of that great fact, but also conveys to us the pleasing assurance that the late Government expressly recognised the claims of the Council to "a certain measure of public assistance." As to the length, breadth, or depth of that "measure," we, alas! know nothing, and the first paragraph of the letter does not encourage the hope that it is large or liberal:—

"Cambridge, February 26.

"Dear Sir,—The Executive Committee of the General Medical Council has accepted the offer of the College of Chemistry made by the Treasury, though the conditions are not so favourable as the Committee had hoped for.

"It is a satisfaction to me that in making the offer the Government did justice to the Council by expressly recognising its claims to a certain measure of public assistance.

"I cannot but feel that thanks are due to you for the kind consideration you were so good as to bestow on this business, and the trouble it must have cost you. In thus saying I express not my own feeling only, but that of the Executive Committee of the Medical Council.

"I have the honour to remain, dear Sir, yours faithfully and obliged,

"G. E. Paget, President of Medical Council.

"The Right Hon. R. Lowe."

NEWSPAPER PRESS FUND.

The report of the Newspaper Press Fund Society, presented at the annual general meeting, held last week, states that the roll now consists of 302 members, of whom 210 are resident in the metropolis and 92 in the provinces, the number of life members being 59. The grants made during the last year amounted to £490 3s., and the number of cases was thirty-six. The stock and securities of the Society amounted to £8300. The ordinary income for the year is estimated at £687 1s. 6d., and there was an available balance on December 31 last of £399 4s. 7d. The chairman, in putting the motion for the adoption of the report, referred to the fact that in the first year (1864) the grants amounted to £60; they had now increased to nearly £500. It was announced that the Duke of Somerset had consented to preside at the annual dinner on May 30.

THE "SIR JAMES PAGET" TESTIMONIAL.

We are asked to state that the engraving of the portrait (which was entrusted to Mr. Barlow, A.R.A.) is now completed, as well as the necessary arrangements for distributing the impressions. In consequence, a communication has been made to the subscribers. The Honorary Secretaries (Mr. A. Willett, 36, Wimpole-street, W., and Mr. J. Langton, 18, Harley-street, W.) will thank any subscriber who has not received the Executive Committee's circular to inform them of the omission.

LONDON ANTHROPOLOGICAL SOCIETY.

At a meeting of this Society, at 37, Arundel-street, Strand, on the 3rd inst., Dr. R. S. Charnock, F.S.A., President, in the chair, the following papers were read:—1. "A Description of three Siah Posh Kaffir Skulls," by Dr. J. Barnard Davis, F.R.S., who questioned Dr. Bellew's opinion that these Kaffirs are of Hindu origin, their skulls being of much larger internal capacity than those of the Hindus. 2. "On the Siah Posh Kaffirs, hitherto supposed to be a Macedonian Colony planted by Alexander the Great in the Hindu Kush," by Professor G. W. Leitner, M.R.A.S. Professor Leitner gave a detailed account of this mysterious race, referring to their European manners and appearance, their various dialects (which he considered to be sisters rather than derivations from Sanskrit), and their mode of Government, in which those become chiefs who have killed at least four Mahomedans, whom they hate, as they kidnap Kaffir children, and have since 948 been encroaching on their mountain fastnesses. Professor Leitner referred to the desire which the Kaffirs have to cultivate friendly relations with the English, and expressed his conviction that if we encouraged them we should not only have a direct and safe road for our trade to Central Asia, but should also be able to solve many puzzles in geography, history, and ethnography.

OPENING OF THE NEW DENTAL HOSPITAL.

The Dental Hospital and the Odontological Society celebrated the opening of their new buildings in Leicester-square by a *conversazione* on the evening of Monday last. The inaugural address was first delivered by Mr. Sercombe, President of the Society; and Mr. C. S. Tomes, the Curator of the Museum, described the Kostroma People. At the *conversazione* which followed there was a large attendance, including the best-known dentists of the metropolis. A number of very interesting microscopical and other specimens were shown.

UNIVERSITY OF DUBLIN MEDICAL SOCIETY.

A general meeting of the members of this Society was held on the afternoon of Tuesday, the 3rd inst., in the Museum buildings, Trinity College, Dublin. The chair was occupied by Professor Bennett, and there was a large attendance of the students of the School of Physic. It was resolved that the Society do hold a meeting once a fortnight—the days to be fixed at the next general meeting. The following officers were elected for the ensuing session:—*Secretary:* J. C. Fisher. *Treasurer:* A. J. MacLaughlin. *Committee:* Theodore Stack (M.D., Hon. Member), W. Chatterton, W. L. Chester, R. S. Cochrane, J. C. Dorman, J. B. Storey, C. Young, E. C. MacDowel, and J. W. Eakin.

MEDICAL APPOINTMENTS IN JAMAICA.

The following medical appointments in respect to the new arrangements of the island medical service took effect on the 1st ult.:—Dr. Wethered assumed the duties of Superintending Medical Officer, Dr. Steventon those of Chief Medical Officer and Director of the Public Hospital, and Dr. Ross those of Medical Officer to the General Penitentiary and to the Lock Hospital, also of medical attendant to the constabulary.

FROM ABROAD.

The Arrest of Hæmorrhage at Flexion.

At the meeting of the Berlin Medical Society, January 9, Dr. Adelmann read a paper on "Protracted Flexion as a Means of Arresting Arterial Hæmorrhage." He stated that after the account of the success obtained in England and Ireland in the treatment of aneurism of the limbs by flexion, he had taken great pains in ascertaining how far advantage would result in the employment of the same means in the treatment of bleeding from wounded arteries. The results of his investigations made in the Dorpat Surgical Clinic were published in Langenbeck's *Archiv* in 1869. Up to the present time he has cognisance of nineteen cases so treated—eleven being cases of his own, and the others occurring in the practice of other surgeons, most of them his own former pupils. In one of these no result was obtained, as the patient could not support the flexion, but in all the rest recovery took place. The wounds implicated the ulnar, the radial, the interosseous arteries, the palmar arch, the dorsalis pedis, the plantar, and the tibialis postica. The duration of the flexion varied much in different cases,—this being continued in one case to the eighteenth day without the patient suffering any considerable uneasiness. It is useful, when readjusting the apparatus, to change the angle by one or two degrees. The case reported by Von Burow, of gangrene of the hand following this procedure, says nothing against it, inasmuch that direct pressure was also employed. In none of Dr. Adelmann's cases has he-

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met with even a trace of any such occurrence. In answer to a question whether this long-continued flexion did not cause inconveniences by reason of the venous stasis it gave rise to, Dr. Adelmann replied that frequently there were all the signs of an obstructed circulation, but according to his experience after about twenty-four hours the compensatory circulation became established. To another question as to the duration of the flexion, he replied that we must in determining this proceed very cautiously, and not discontinue flexion until granulations have formed; yet he has been able to discontinue it after the third day without any hæmorrhage occurring. He also observed that as physiology has not determined what are the changes which take place in the circulation in consequence of this angularisation of the vessels, forced flexion can only at present be employed as an empirical remedy. He hopes that before long experimental investigations will be undertaken on animals, in order that we may be able to establish the practice of flexion in man upon a scientific basis.

Defective Diet of Infants.

In our number for February 21, p. 219, we noticed a discussion which took place at the Paris Hospital Medical Society, with respect to the alleged defective feeding of young infants in the Paris hospitals. A committee was appointed to investigate the subject, and M. Parrot has published its report in the *Union Médicale* for February 21.

The Committee considered that the object of its appointment would be best attained by its first endeavouring to fix in a general way the quantity of milk necessary for a child submitted to artificial suckling, and then ascertain how far this regimen is observed in the hospitals. For the former of these purposes it was desirable to ascertain first the quantity of milk taken by infants suckled by the breast; and the figures supplied by M. Bouchaud in 1864, obtained by weighing the child after each suckling, have been found by the Committee to be accurate. According to these, the infant sucks in the twenty-four hours 30 grammes on the first day, 150 on the second, 450 on the third, 550 on the fourth, 650 after the first month, 750 after the third month, 850 after the fourth, and 950 from the eighth to the ninth month. M. Jacquemier's statement of the ratio which cow's milk bears to the human may be taken as a very safe one for determining the quantity of the former required in artificial feeding. It contains much more casein, butter, and salts than woman's milk, but is less rich in sugar and water; and he considers that by diluting it with a third of this liquid, and adding one-twenty-fifth of sugar, we arrive at an approximative imitation of woman's milk. The following, therefore, will be the quantity, by weight, required of cow's milk for the suitable feeding of infants—viz., 20 grammes on the first day, 100 on the second, 300 on the third, 366 on the fourth, 434 after the first month, 460 after the third, 566 after the fourth, and 634 between the sixth and ninth. As the result of its own additional experiments, the Committee comes to the conclusion that when good and pure milk is employed, 300 grammes furnish ample nourishment during the first month, 600 during the second, third, fourth, and fifth, and 800 from the sixth to the ninth month. This, in the opinion of many, should be diluted, and there should also then be added 30 grammes of sugar during the first month, 40 during the four following, and 50 for the subsequent months. During the first five months, unless under exceptional circumstances, milk should constitute the sole food; but after this, other articles—especially farina, broths, and panadas—may supersede a portion of the milk. Thus, at six months the ration may be composed of milk 700, fecula, farina, or bread 100, and sugar 50 grammes.

In comparing these requirements with the quantity of milk supplied for infants at the hospitals, the Committee is of opinion that this is insufficient, and not properly graduated according to the age of the child. But it is also certain that this deficiency has not by any means been so great as was supposed, and that no children have died in consequence of such deficiency. Much misconception has arisen from the loose employment of the term "death from inanition," which, while interpreted to mean a want of sufficient nutriment, really signifies an impossibility on the part of the little patients to receive aliments, and especially to assimilate them. Infants who are ordinarily said so to die, do not really die for want of food, for frequently at the autopsy the stomach is found distended with accumulated milk.

"Who can doubt this on seeing these little famished beings seeking by gestures, looks, and cries, their mouths widely open—an entire anxious and desolating pantomime,—the aliments they so need, and which they reject as soon as taken, or even repel when they are brought to them. They suffer like Tantalus; but it is not the aliment which flies their mouths, it is their mouths which refuse the food brought to them. If we regard 'inanition' in this light—and we cannot do otherwise,—we must seek for its origin elsewhere than in the insufficient food accorded to young infants in our hospitals. Its source is to be sought first in nosocomial influences, the nature of which may be unknown, but the lugubrious consequences are familiar to us all; in the fact of artificial feeding itself, from which all infants suffer, and some, especially in Paris, cannot support; in the bad quality of the milk, generally far too stale, and almost always altered in quality by the manipulations its transport and conservation have rendered necessary; and in the faulty manner in which the milk is given—at too long intervals and too much at a time. This is the state of things which we should seek to reform, or at least to ameliorate. We are well aware that most of the points which we have indicated cannot be made the object of strict regulations; but still we have thought it well to call your attention to them, because they hold a considerable place in the sum total of the cares which young infants exact. On their rigorous observation often depend the lives of these frail beings."

The report concludes with the recommendation of a diet table more suitable for the wants of infants in hospitals than that now in use.

The Veterinary School at Alfort.

This celebrated School, now under the direction of M. Reynal, was founded in 1764, a manor having been purchased for that purpose. Bourgelat, who may be regarded as the creator of veterinary medicine, was placed at its head, being assisted by men of the highest eminence, among whom were Daubenton, Fourcroy, and Vicq d'Azyr. The School has gradually increased the sphere of its operations, and has undergone a complete reorganisation since the late war, having now six professors, who treat of the anatomy, physiology, diseases, and hygiene of animals; sanitary police, and commercial jurisprudence in relation to them; chemistry, botany, zoology, etc. Students are required to be between seventeen and twenty-five years of age, and have to undergo a preliminary scholastic examination. Their studies continue for four years, and the diploma costs only 100 francs. The *internes* pay 600 francs, and the *externes* 200 francs per annum; and "free auditors," authorised to attend the lectures, pay 50 francs per semester. The Minister of War has the right of sending forty sons of military men, selected by merit. The present number of pupils is 323—viz., 272 *internes*, 46 *externes*, and 5 "free auditors. The animals which passed through the hospital amounted, before 1870, to a monthly mean of 1200; but in 1873 they were only 779 in number. Of these 682 were only brought for consultation, 96 were left in for treatment, and one sheep became the object of clinical observations. The budget of the School amounts to 282,000 francs. The receipts for the decennial period amounted to 1,308,029 francs. Each veterinarian educated at Alfort is estimated to cost the State 648 francs per annum. During the decennial period 1860-70, there were 489 diplomas conferred. By the recent regulations, riding and driving are also taught, and a regular *manége* has been established within the vast precincts of the establishment. A model piggery, dairy, cheese factory, have also been added; and there is a station for stallions, and for 300 head of cattle; while a large farm has recently been annexed to the School for the purpose of exhibiting the different modes of culture.

Nélaton's Successor at the Académie.

The election of Nélaton's successor at the Académie des Sciences has given rise to another battle between the surgeons and physiologists of that body. Unfortunately, as the sections of the Academy were arranged half a century ago, and as they still remain, there is no door open for the direct admission of biologists, who are therefore compelled to edge in as they best can; and the section of Medicine and Surgery is usually the one selected for the attempt. Indeed, some of the Academicians would be glad to get rid of the doctors altogether as a too practical set, and confine the elections to men of pure science; and M. Andral, whose fame chiefly rests upon his clinical celebrity, is, it is said, one of the foremost in this direction, and never comes to the Academy except to vote against those for whom his proclivity would have been anti-

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cipated. Evidently a reform in the distribution or augmentation of the sections, which would give the biologists the direct entry to which they have made out so excellent a right of late years, is called for—that is to say, if the Academy is to continue to be formally divided into sections at all, the utility of which arrangement it requires the passion for classification inherent in a Frenchman to perceive, while its tendency to limit choice and to favour cliquism and narrowness of view has often been manifested. Not long since there was a stiff battle, both in this section and in the Academy, in which a surgeon of M. Sédillot's eminence achieved a victory with no little trouble; and now another contest has commenced in order to fill up the vacancy caused by Nélaton's death. In the section the surgeons have won the day, for of the six candidates—MM. Gosselin, Broca, Demarquay, Richet, Marey, and Vulpian—the first four have been chosen (M. Gosselin first on the list) for presentation to the Academy in order that it may make its selection, leaving MM. Marey and Vulpian unproposed. This seeming to the minority a hard measure to deal out to men of such eminence, M. Claude Bernard will propose that their names shall also appear as candidates. Were an open selection possible, independently of sections, the Academy would long since have honoured itself by including men of such scientific eminence among its members. As it is, they are subjected to repeated rejections solely because the portal of entry has continued so narrow, while the claims of biological science have so expanded. As a general rule, the Academy feels bound to be tied up by its own regulations, and usually votes for the candidate proposed for its approval by the section.

POISONING BY VINUM (SEMINIS) COLCHICI.

Dr. Major read an interesting paper on the above subject at the Montreal Medico-Chirurgical Society, which is reported at length in the *Canada Medical and Surgical Journal* for December.

A considerable quantity of vinum colchici (made with four ounces of the seeds to the pint) having been stolen, was consumed by the thieves and their friends, with the result of producing numerous cases of poisoning. The present paper is founded on seventeen such cases, seven proving fatal, and ten recovering. Unfortunately the coroner refused to sanction post-mortem examinations, so that the pathological appearances have not been ascertained. From Dr. Major's *résumé* we extract some of the particulars observed during life. In from forty-five to ninety minutes, vomiting ensued, this producing, first, bilious discharges, and then a fluid similar to the "rice-water" of cholera—for which disease, indeed, some of the cases were at first mistaken. When the amount taken had been very large, purging came on simultaneously, but otherwise it was delayed for some hours. In the fatal cases, both vomiting and purging continued to the last. There were severe cramps, and in some cases severe pain in the knee or shoulder. The features were pinched, and the nose and lobes of the ears were blue; the eyes were congested, the pupils being slightly dilated; the voice was hoarse and husky, and great irritation was felt in the throat, as if from an attack of laryngitis. There was intense thirst, the liquids drank being immediately rejected. The lower extremities were icy cold, but the rest of the body had a warmish clammy feel, although it was below the normal temperature. The pulse varied from 125 to 145, being very small and compressible, and at times imperceptible at the wrist, though it could be detected at the elbow. For several hours before death the carotids were almost pulseless, and the heart's impulse could be heard only with difficulty. The respiration was full and easy, and well maintained throughout. The patients continued sensible to the last, and muscular strength was retained, all the patients being able to sit up or even to walk. They were perfectly sleepless. The seven fatal cases occurred in subjects from twelve to forty-five years of age, the amount of the wine taken amounting to from three to ten ounces, and the patients living for from nineteen to twenty-nine hours. The recoveries occurred in subjects between three and thirty-nine years of age, most of these having taken very small quantities, except a man aged thirty-five, who drank eleven ounces. Large doses of brandy and ammonia were administered.

A PUBLIC LECTURE, "On the Beginnings of Electrical Research," will be delivered at the rooms of the Deaf and Dumb Association, Oxford-street, on Tuesday, March 10, by Mr. Charles W. Vincent, F.C.S. The lecture will commence at 8 p.m., and will be interpreted by the Rev. A. Smith.

ARMY MEDICAL SERVICE.

THE following is a list (in order of merit) of gentlemen who competed successfully for appointments as Surgeons in her Majesty's British Medical Service at the competitive examination held at the London University on February 16, 1874:—

		No. of Marks.			No. of Marks.
1.	Ward, B. L.	2221	9.	Pratt, W. S.	1540
2.	Gallwey, J. G.	1995	10.	Gormley, J. A.	1444
3.	Prendergast, J.	1912	11.	Fass, J. E. W.	1368
4.	Hickson, G. B.	1905	12.	Young, F. S.	1355
5.	Miller, W. B.	1890	13.	McCreery, N.	1350
6.	Iagoe, B. K.	1725	14.	Greene, J. J.	1345
7.	Smyth, C. O. H.	1706	15.	Martin, J.	1296
8.	Smith, J. A.	1545	16.	Turner, C. P.	1235

INDIAN MEDICAL SERVICE.

THE following is a list (in order of merit) of the candidates for her Majesty's Indian Medical Service who were successful at the competitive examination held at Burlington House on February 16, 1874. Thirty-six candidates competed for eighteen appointments. All were reported qualified.

		No. of Marks.			No. of Marks.
1.	Leckler, H. M.	2590	10.	Lancaster, J.	1985
2.	Corbett, J. L.	2558	11.	Yedd, H. P.	1985
3.	Mair, E.	2370	12.	Warden, C. J. H.	1925
4.	Benson, P. H.	2335	13.	Wilkins, J. S.	1890
5.	Browne, S. H.	2327	14.	Smith, J. G. M.	1875
6.	Armstrong, J.	2325	15.	King, W. G.	1840
7.	Dawson, L. R.	2213	16.	Fullerton, J. C.	1835
8.	Warder, R.	2210	17.	Patterson, D. A.	1820
9.	Shiscore, J. C.	2090	18.	Barren, W. A.	1720

REVIEWS.

The Student's Guide to Zoology: a Manual of the Principles of Zoological Science. By ANDREW WILSON. London: J. and A. Churchill. 1874.

THIS little work is intended to teach the first principles of general zoological teaching, and not the details of the science. As such, it differs from nearly every work which has been published on the subject, with the exception of Dr. Alleyne Nicholson's "Introduction to Biology." The method adopted by the author is clear and lucid. We doubt much the expediency of bringing before the minds of students too many facts and principles. The old Linnean maxim, *Omnis vera cognitio cognitionis specifica initiatur*, rather pointed to the acquirement of a mass of details, on which the student might test his knowledge, by reference to public or private collections and museums. But we have now entirely changed this plan, and the student may speculate on the nature, qualities, and existence of "bioplasm" (*olim* protoplasm), without a single opportunity of verifying his conjectures by personal inspection or experiment on the mysterious bases of life. Such an inquirer must therefore possess a clear *exposé* of the popular theories; and this is afforded by Dr. Wilson, in language which leaves nothing to be desired.

Thus, the author gives a remarkably clear and accurate account of the controversies between MM. Pasteur and Pouchet on the origin of life, supplemented by the more recent and more startling investigations of Drs. Bastian and Sanderson. The theories of Drs. Beale and Bennett are fought over again, and the old battle-ground of Parthenogenesis is again traversed. There is not much that is new in this; though students who do not care to wade through the writings of their predecessors thirty years old may now have the pleasure of familiarising themselves with somewhat of the teaching of Geoffroy St. Hilaire and De Blainville.

The author, like most modern writers, uses the term "biology" as equivalent to the "science of life," and abandons the older and more familiar sense in which the term "zoology" was used by Owen and the teachers of the science. His account of the nature of life and vital action is peculiarly exact and complete, and the observations he offers on "potential" vitality are thoroughly philosophical, according in the main with those of

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Dr. Lionel Beale, who said—"To revive and to revitalise are two very different things. The matter from which life has once departed, cannot be made to live again." If from Mr. Wilson's calm and judicial summary of the arguments on both sides we can in any way guess his own thoughts, we should strongly suspect that his inclinations are in favour of the elder school, which advocated a theory of "vital force."

With regard to the distinctions between animals and plants, his conclusions accord to a great extent with those of Professor Owen, that at the base of the two separate series of plants and animals a kingdom exists which has been indifferently termed *Regnum Protisticum* or Acrita. "The two series of plants and animals are to be placed side by side, as in the circles, and not in any continuous linear arrangement." The old *échelle continue* of Bonnet thus falls to the ground. "The higher forms of each kingdom diverge so widely from each other that it requires no scientific aid or acumen to readily distinguish the nature and relations of either or both." A rose and a lion are widely "differentiated," but not so a *Torula* and a *Bacterium*.

We wish our space permitted us to copy Mr. Wilson's admirable table on page 58 of the classification of the subject, which is, to our belief at least, a perfectly novel one.

The sixth chapter, on Homology, is peculiarly clear, though it does not pursue the subject with the completeness which Mr. St. George Mivart has recently devoted to it.

Altogether, Mr. Wilson's work will be necessary for everyone who proceeds to the B.Sc. degree at the London University, and does not desire to wade through the voluminous and controversial literature on the subject. It is alike lucid and well arranged. Larger books exist, but few which comprise so many solid facts within so small a space.

A Theory of the Causation and Suggestions for the Prevention of Dysentery. By "Mucor." Melbourne: G. Robertson, Pp. 336.

Dysentery is caused wherever human excreta are exposed on the surface of the earth to certain conditions of moisture, temperature, etc., and may be prevented by adopting the Mosaic method of covering the ejecta. This is the central deduction reached; and we notice the book in order to draw further attention to this conclusion.

The theory broached—that specific fungi are developed upon the excreta, which are themselves the poisons of dysentery, cholera, typhoid, etc.—is not sustained by original microscopic investigation or synthetic experiment. Even if the author had proved that the fungi which are formed on human fæces during the prevalence of dysentery were found to exist also in the recent excreta, or in the blood of those suffering from this disease, the proof that these germs were themselves the active principle of contagion would still be wanting; for it has been well pointed out by Dr. Burdon-Sanderson(a) that "it does not follow, because these organisms come in from outside, that they bring contagium with them, for it may readily be admitted that they may serve as carriers of infection and yet be devoid of any power of themselves originating the contagium they convey."

Much interesting information is collected as to the condition of Australian gold-diggers suffering from epidemic dysentery, and as to the varying prevalence of disease in accordance with national methods of sewage disposal.

If the author had confined his attention to a narrower field, had observed more and written less, and had given himself time, he would have attracted more attention to his conclusions, and might have produced a work of lasting value.

PROVINCIAL CORRESPONDENCE.

IRELAND.

Dublin, March 3.

Dublin Corporation Waterworks — Local Government Board Inquiry—Health of Dublin—City of Dublin Hospital.

As mentioned in your impression of last week, a very important inquiry has been held before Mr. Robinson, an Inspector of the Local Government Board for Ireland, into "the alleged pollution of certain streams tributary to the River Vartry, and the alleged neglect of the Board of Guardians of the Rathdrum Union, as the local sewer and nuisance authority, to provide a sufficient system of drains and sewers for the town of Roundwood, in order to secure the health, comfort, and cleanliness of the inhabitants of that town, and to prevent the fouling and pollution of the streams referred to." I may briefly recapitulate the facts of the case as regards the Corporation, especially as the figures given in evidence fall considerably short of those currently reported before the inquiry. Two rivulets, affording an average water-supply of some half-million gallons a day, are fouled by the sewage of Roundwood, at a loss to the Corporation of Dublin of about £1500 per annum. The loss arises in this way: the water of the polluted streams, instead of being allowed to flow into the Vartry reservoir, is caught and conveyed into an intercepting drain, through which it runs to waste, joining the Vartry river at a distance of two miles down the stream, namely, at a point *below* the filter-beds of the Corporation works.

The Inspector, in opening the inquiry, stated the case of the Local Sanitary Authorities in the following words:—"On the other hand, the Board of Guardians of the Rathdrum Union state that the streams running through Roundwood are in no respect in a different or worse condition than before the construction of the Vartry Waterworks, and are not polluted by sewers from houses to a greater extent than was the case at that period; that the streets and fair-green are in no worse state than they were when the Corporation commenced their works; and that they believe the sanitary state of the town is in every respect satisfactory."

Mr. Serjeant Armstrong, in stating the case of the Corporation of Dublin, maintained that the Sanitary Act of 1866 compelled the Board of Guardians, as the nuisance authority, to provide proper sanitary accommodation, and to prevent the pollution of streams used for drinking purposes. Two classes of witnesses were called to support the case—the first, engineers; the second, medical experts in sanitary science. The first medical witness examined was Dr. C. A. Cameron, Analyst to the City of Dublin. He deposed that the water of one of the polluted streams, after passing the town, contained 12·34 gr. of solid matter, and 0·5 gr. of ammonia per gallon. The quantity of ammonia present was 200 times more than the normal proportion. Dr. Mapother, Medical Officer of Health for Dublin, gave evidence as to the pollution of the streams, and the dangerous condition of the local sanitary arrangements. The remaining two medical witnesses were Drs. Grimshaw and J. W. Moore, both Diplomates in State Medicine of Trinity College, Dublin. These gentlemen had personally inspected the district, and deposed that to allow the polluted streams to enter the reservoir must be most prejudicial to the health of the citizens of Dublin. Sir John Gray, chairman of the Waterworks Committee, showed that in dry seasons particularly the water wasted in consequence of this sewage-contamination was absolutely required as part of the supply. This closed the evidence on the side of the Corporation.

Mr. Ryan, Q.C., then spoke on behalf of the Board of Guardians. He argued that the citizens of Dublin were but little concerned for the health of the "citizens" of Roundwood, the sanitary condition of which town was good; and that, if they required water, they should themselves pay the expenses of procuring it. The evidence on this side was, at times, of rather an amusing character, the "oldest inhabitant," of course, being to the fore. The Dispensary medical officer stated that in the last four years no death from a zymotic disease had occurred in Roundwood itself; yet in his district last year there were deaths from choleraic diarrhœa, diarrhœa, measles, and fever—a fact which shows that Roundwood may at any time become the seat of an epidemic. One witness, a member of the Board of Guardians, on cross-examination, said the village was a great deal cleaner of late, because new sewers had been made. "Yes," said counsel, "sewers through which the filth of Roundwood is carefully conveyed away from the town to our watercourses!" An able speech from Mr. John Gibson, junior counsel for the Guardians, and a reply from Serjeant Armstrong, closed the proceedings, the Inspector stating that the Local Government Board would make known their decision with as little delay as possible.

It does seem rather strange that the Board of Guardians should hesitate to perform, at an estimated cost of some £500, works which would undoubtedly conduce to the welfare of Roundwood, more especially as the Corporation of Dublin pays large rates in the district.

But, apart from the public importance of an inquiry such as

(a) "On the Infective Product of Acute Inflammation." *Med.-Chir. Trans.*, vol. lvi., p. 363.

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this, the fact that it was thought desirable to retain so many sanitary experts is not devoid of interest to the medical profession. If this recognition of the value of a qualification in State medicine by such an influential body as the Corporation of Dublin is generally endorsed by the public at large, the hands of those who are now engaged in advocating the necessity for a special training in preventive medicine will be greatly strengthened.

As this is quite a "sanitary" letter, I will conclude with a few remarks on the health of Dublin this winter. The remarkable mildness of the season has of course told favourably on the general death-rate, and on that from diseases of the respiratory organs; still, the returns are by no means so satisfactory as could be desired. The mean temperature of the first seven weeks of 1873 was 40·2°; that of the corresponding period of 1874 was 41·9°. The average death-rate during the time specified was 30 per 1000 annually in 1873, and only 26 per 1000 in 1874. In 1873, 256 deaths were referred to bronchitis in the seven weeks; in 1874 the number was only 148. But, besides being higher in 1874, the temperature was much more equable than in 1873. Thus the mean temperature of one week in the last-named year was as high as 46·6°, while that of another week fell to 32·5°; the extremes in 1874 were 44·6° and 39·7° respectively. So far the influence for good of a mild season is evident. But zymotic diseases have been rife here, as in London; for they have caused 241 deaths in 1874, compared with 182 deaths last year—I mean in the seven weeks under discussion. The increase is almost wholly due to the presence of a severe epidemic of scarlatina. This disease has killed 91 persons in the seven weeks, compared with 20 last year. The epidemic began towards the close of September, 1873, and it has assumed formidable proportions, having proved fatal in 151 instances in the last quarter of the year—a number which would correspond to about 1600 deaths in London. Measles and hooping-cough, which are now, and have been, so prevalent in London, have been also of rather frequent occurrence here, 13 deaths having been referred to measles, and 10 to hooping-cough, in the seven weeks. However, they have not been nearly so fatal as in London. Fever caused 59 deaths, compared with 43 last year. I am sorry to say that enteric fever is credited with no less than 28 out of the 59 deaths.

It will be seen from these figures that we have but little reason to congratulate ourselves on the lessened death-rate this winter, seeing that this is altogether due to an unprecedentedly open and fine season.

The Physicianship to the City of Dublin Hospital, vacant through the appointment of Dr. Purser to the Chair of Institutes of Medicine in the School of Physic, Trinity College, and to Sir P. Dun's Hospital, has, I understand, been given to Dr. John Magee Finny, Registrar of the King and Queen's College of Physicians, and Demonstrator of Anatomy in the School of Physic. This is an appointment which will give general satisfaction, as Dr. Finny has been long and favourably known as a careful and sound teacher, and as possessed of original powers of no mean order.

REPORTS OF SOCIETIES.

ROYAL MEDICAL AND CHIRURGICAL SOCIETY.

MONDAY, MARCH 2.

Dr. C. J. B. WILLIAMS, F.R.S., President, in the Chair.

ANNUAL MEETING.

THE annual meeting of the Royal Medical and Chirurgical Society was held on Monday, March 2, at the Society's house, Berners-street, the President, Dr. C. J. B. Williams, in the chair. The report of the Council was then read. It recorded, among other matters of interest, that the year's expenditure had considerably increased, and that they had resolved this year to give another *conversazione*.

The adoption of the report was moved by Mr. H. LEE and seconded by Dr. BEGLEY, and carried unanimously.

Dr. SIEVEKING then proposed that the Society should no longer publish their *Proceedings* separately, but that they should be incorporated in the annual volume of *Transactions*, which, moreover, would contain all papers in full or in abstract, arranged in chronological order. He said the *Proceedings* were at first popular, but since their first institution their popularity had fallen off. He thought it better in every way that they should be incorporated with the *Transactions*.

Dr. ANDREW BARCLAY, with considerable hesitation, seconded the motion. He feared they might thereby injure the value of the *Transactions*. If, however, he thought so he would not bring such a motion before the Society. It was thought the *Proceedings* might be a receptacle for short papers, but this had not been so, though they had been useful in other respects. He quite thought the *Proceedings* should cease.

Mr. CHARLES HAWKINS regretted this matter had been again brought up by the Council. The *Proceedings* were intended as a permanent record of much which might otherwise escape general notice. Several papers had not been published in the *Transactions*, and a record in any form of some of them would now be invaluable. He could hardly say what the real value of the *Proceedings* was. It was quite true they were not published at the proper time; they were too long in being issued. If they printed everything in the *Transactions*, these would sink in public estimation. As it was this Society was hardly holding its own with younger and more vigorous bodies, save, perhaps, by their *Transactions*, and if their value was impaired it would be very serious. Moreover, if all papers which were read here were published in them, these papers would go forth with a stamp which might be very undesirable, as, for instance, in the case of the notorious paper on hypogastria. This would be most objectionable. There had been dissatisfaction because all the papers read had not appeared in the *Transactions;* if only published in abstract, this would be worse.

Mr. CURLING objected to the dilution of the *Transactions* with such matter as now saw the light in the form of *Proceedings*. That would greatly diminish their value as a permanent record, and would be a permanent record of the judgment of the Council as to the value of a paper. All abstracts appeared in the journals, and thus he had no objection to the discontinuance of the *Proceedings*, but objected to the publication of their matter in the *Transactions*.

The PRESIDENT suggested that the Council and Secretaries would act as restrictions on improper papers appearing or being read.

Dr. A. P. STEWART said the *Proceedings* answered all the purposes they were ever intended to fill. They were really a record of what was done in the Society.

Dr. MACINTYRE, speaking in behalf of the country Fellows, begged that the *Proceedings* might not be discontinued. They were the only record of the doings of the Society which reached them.

Mr. C. BROOKE said the *Proceedings of the Royal Society* were published at short intervals, so as to give the results obtained speedily to the public. If they were to continue the publication of their *Proceedings*, they ought to bring them out at short intervals. The embodiment of the *Proceedings* in the *Transactions* would diminish the value of the latter, and so lower the prestige of the Society.

Dr. SIBSON said the *Transactions* were for great papers, but it would not injure them if abstracts of others were inserted at the end. The *Proceedings* really contained papers of high value, and it would add to their value if made easy of reference in the *Transactions*. Let all papers be carefully selected, and all be printed in full or in abstract.

Mr. SAVORY said it was not a question of publishing, but of honour. Ever since the foundation of the Society it had been considered an honour to have a paper in the *Transactions*. If these were lowered in character, that would lower the status of the whole Society. They could not distinguish abstracts, in many cases, from original papers.

Mr. DURHAM also spoke strongly on the subject, and, on a show of hands, the motion was rejected by a very large majority.

The PRESIDENT then proceeded to deliver his annual address on the many who had fallen out of the ranks of the Society during the past year. Votes of thanks were also passed to the various retiring and other officials.

At the close of the ballot the following were declared elected office-bearers for the ensuing year:—*President:* Charles James Blasius Williams, M.D., F.R.S. *Vice-Presidents:* Edward H. Sieveking, M.D.; * Sir William W. Gull, Bart., M.D., D.C.L., F.R.S.; William White Cooper, * Luther Holden. *Treasurers:* William Wegg, M.D.; John Birkett. *Secretaries:* Edmund Symes Thompson, M.D.; John Cooper Forster. *Librarians:* Francis Sibson, M.D., F.R.S.; Timothy Holmes. *Other Members of Council:* * John Burford Carlill, M.D.; * William

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Howship Dickinson, M.D.; Charles John Hare, M.D.; * William Overend Priestley, M.D.; * Hermann Weber, M.D.; William Adams, Thomas Bryant, * George William Callender, F.R.S.; * John Gay, * John Fremlyn Streatfeild. Those gentlemen to whose names an asterisk is prefixed were not on the Council, or did not fill the same office, last year.

THE PATHOLOGICAL SOCIETY.

TUESDAY, MARCH 3.

Sir W. JENNER, Bart., F.R.S., President, in the Chair.

MR. DE MORGAN read his Thesis upon Cancer (which appears in full elsewhere in our journal).

Mr. SIMON commenced his remarks by referring to the difficulty of dealing with such a lengthened paper in a short verbal reply. He owned the debt which science was under to the Middlesex Hospital, and especially to Mr. De Morgan for the investigation on cancer. In criticising the paper which had just been read, Mr. Simon first noticed that Mr. De Morgan had referred to the blood-origin of cancer. This theory was brought forward twenty-five years ago on grounds which even then were insufficient, and which were now all the more so. But probably "the system" rather than "the blood" was indicated by the phrase. Mr. De Morgan, in putting aside the blood as an exciting cause of cancer, did not do justice to the total effect of the system in the predisposition. Looking to the hereditary nature of the disease, and to the insusceptibility to inoculation, one must almost assume a specific predisposition—a predisposition not represented by hereditary germs (as in the silkworm disease), but a predisposition in the general constitution of the body. Again, Mr. De Morgan had combated the theory of the specificity of cancer, and spoke much of the mobility of the elements. He (Mr. Simon) would use the term "cancer" in the old sense—not in the new or anatomical one. We want a term to include scirrhus of the breast, sarcoma of the femur, and epithelioma of the lip, and that term is "cancer." Has cancer, then, in this sense, a specificity, or does it differ from other new growths only in the mobility of its elements? Mr. Simon believed entirely in its specificity—that there is an absolute difference between tumours to be classed as monstrosities and tumours to be called zymotic, which are contagious. He agreed that we cannot distinguish them in form. Both are, speaking generally, in their anatomical characters, the signs of local irritation—the vegetative results of a stimulus. We know what such result may possibly be: it may be embryonic, or tumaltuous, or abortive; but it can be one of only a few. And what are called true monstrosities may be considered productions of adult tissues. There is therefore, after all, an absence of anatomical distinction. The stimulus comes to a part, and the part undergoes changes. If it is a gland or epithelial organ, we get an alveolar tumour; if a connective tissue, a fibro-cellular tumour; and similarly in the case of a simple hypertrophy. Again, the liability to relapse is not a characteristic peculiar to cancer. Monstrosities may relapse. Many years ago, Mr. Simon removed a small fibrous tumour from a young lady's chest which had recurred after a previous operation. Although the whole growth and a portion of the healthy tissues were removed with care, the disease returned a second time within a few weeks, and in each of the cicatrices left by the pins in the edges of the wound there was a small tumour. These were dispelled by cold, and the patient is now alive and well. Mr. Darwin, also, has collected cases of the relapse of supernumerary members after amputation. Neither would he (Mr. Simon) consider original plurality a test of malignancy. We often get an unitextural plurality. Thus, we may get the scalp filled with sebaceous tumours, the subcutaneous tissue loaded with fatty tumours, and so on. What constitutes true malignant disease is something *sui generis*, and is not the matter of the mobility of elements. To consider what it is, we cannot confine ourselves to the part; we must look farther than it. The growth exercises on the tissues which receive its juices an influence which can be called nothing but impregnative or spermatic; it causes them to develope after its pattern. Mr. De Morgan would call this transplantation; but some very thorough experiments which to his knowledge have lately been made on this subject point in a very different direction. He would not say there is no possibility of the growth of a transplanted bit of sarcoma, but the observations of Dr. Creighton had shown something else—namely, changes in the elements of the parts into which the transplantation is made, the cells of which, and not of the transplanted portion, undergo transformation. Again, we must study kindred processes. We cannot deny the specificity of cancer, any more than we can deny the specificity of small-pox. Compare cancer with tubercle and syphilis. Late investigations indubitably prove the contagious nature of tubercle, and trace it to intimate connexion with the septic ferments. Tubercle may arise from external contagion. One sees in its case the immense influence of personal predisposition. Whatever the nature of the cause of tubercle may be, some animals do not suffer on exposure to it; others—as the rodents, for example—universally. This is constitutional susceptibility. Then look at syphilis,—take the case of chancre of the lip, swelling of the neighbouring glands, and gummata of the viscera: and compare these with a case of epithelioma of the lip, enlargement of the neighbouring glands, and secondary disease of the lungs and liver. Do these two cases differ more from each other than we might expect in two species of morbid poisons? Mr. Simon would not say, however, that cancer comes *ab extrâ*; but he thought we are driven to recognise the fact that the essence of the disease is the development in the spot of a specific impregnative influence. What has caused this development? It must be either of two things. Either there has arisen in that spot a property quite *sui generis*, or there has arrived a contagion from the outside. We can hardly escape this alternative. Mr. Simon did not wish to insist on an external source of cancer, but he wished to insist upon this point—that the process followed from first to last is one which brings cancer into relation with tubercle certainly, and with syphilis less certainly, making a distinct group of diseases.

Mr. JONATHAN HUTCHINSON said that his views are very nearly the same as those expressed by Mr. De Morgan. Fifteen years ago he contended for the local origin of cancer, and he has taught this doctrine ever since. He believed our hopes of cure rest very much on the truth of this, and on the belief in the truth of this. Cases are often imperilled or even lost from a neglect or a disbelief of this opinion. There is no doubt that a considerable number of cancer cases can be successfully attacked. But in contending that cancer is a local disease he would not put aside the teaching of those who say it is also constitutional. He believed Mr. De Morgan had exactly hit the point in discussing the blood-origin of the disease. We ought to get rid of this expression—"blood disease," and substitute "constitutional disease." He was glad Mr. Simon protested against the new histological definition of cancer; he also would use the word in its old meaning. To return to the question of the specificity of cancer, Mr. Hutchinson would not attach so much importance to this as Mr. Simon did. The term "specificity" was a relative one. What was cancer a species of? In illustration of the relations of cancer he would refer to an important fact which had not been touched upon by Mr. De Morgan in his paper—namely, the occasional transmutation of the growth in the line of its hereditary transmission. Thus it has been frequently observed—and must be allowed to be a fact—that in the transmission of the cancer tendency a transmutation is sometimes seen, by the occurrence in the family of benignant tumours. He could himself confirm the accuracy of the observation, which he believed was first made at the Middlesex Hospital, that persons subject to warts in unusual numbers frequently have relations the subjects of cancer. Another important question bearing on the same point is, what becomes of the offspring of parents who are cancerous at the time of birth? He had himself investigated this in several cases, and he would insist on its importance. He referred especially to one instance of cancer of the testicle in a young man, where such a history in the parents was distinctly obtained. There was another point—that the form of the cancer may vary very much in the several members of the family affected; thus, scirrhus in the mother may be followed by melanosis in the child. And this fact was an additional argument in another direction—namely, that there is an essential oneness in malignant tumours. Finally, he reminded his hearers that innocent ulcers often become malignant. This fact is so important that Mr. Hutchinson had himself published directions to be followed for converting an innocent into a cancerous sore,—for the purpose of calling attention strongly to it.

SMALL-POX is still prevalent in Dewsbury, Yorkshire.

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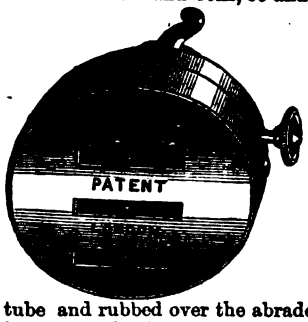
NEW INVENTIONS.

MALLAIN'S INSTANTANEOUS VACCINATOR.

This elegant little instrument (manufactured by the patentees, Messrs. Arnold and Sons, 35 and 36, West Smithfield, London) is to some extent an adaptation of the cupping scarificator for vaccination purposes. Instead, however, of being armed with lancets like the scarificator, it has three steel teeth, gilded so as to prevent rusting, placed at equal distances from each other, which, having been set by the trigger, are released by pressure on a knob, producing three abrasions of the skin instantaneously. The lymph is then blown from a tube and rubbed over the abraded surfaces, and the operation is completed. The perforated side of the little instrument is concave so as to fit the arm of an infant. The celerity with which the operation can be performed will of itself recommend this instrument to all gentlemen in general practice, or engaged as public vaccinators. The patent vaccinator can be made with two, three, or four teeth, as required.



OBITUARY.

ALEXANDER KILGOUR, M.D.

By the death of Dr. Kilgour, at his residence at Loirston House, on the 19th ult., Scotland has lost *the* leader and ornament of medicine in the North, and the city of Aberdeen one of its most influential and respected citizens; for, without dispute, Dr. Kilgour was the head of the profession beyond the Forth, and occupied a position never before held by any member of the profession in the North—a position, moreover, which, it is not too much to say, will not be more worthily filled for many years to come.

Dr. Kilgour was born in Aberdeen, on October 28, 1803, and spent the whole of his life in his native city. He received an excellent general education at the grammar school and Marischal College, where he acquired that taste for classical literature which clung to him for the rest of his days. After taking the degree of Master of Arts, he studied medicine, acting latterly as demonstrator of anatomy in the University Medical School, and passed the College of Surgeons of London in 1826. He then began practice in Aberdeen, commencing his career, as was then the custom, by keeping an open surgery in the Gallowgate, at that time one of the leading thoroughfares in the city. In 1831 he was appointed one of the medical officers of the General Dispensary—an office which he held till 1838, when he was appointed one of the physicians to the Royal Infirmary. Previous to this he had in 1833 taken the degree of M.D. in Marischal College and University, and had already attained a very fair amount of practice, but his hospital appointment afforded him the field which he needed, and his progress after this was rapid. He at once began those admirable clinical lectures, which he continued to deliver for more than a quarter of a century; and there is no doubt that he thus gained that high position which he held both in public and professional estimation. His lectures could not, perhaps, be called fluent or eloquent, in the sense in which eloquence is sometimes understood. They were no mere platitudes delivered with a copious flow of words, and containing little or no useful matter; but they were replete with sound practical advice, were strictly clinical in their character, and the student never left them without having obtained some information which would be of value to him in his future life. Generally these lectures were delivered without notes, although they bore evidences of careful preparation; but at times he would give a few written lectures on such a subject as fever, and then the students used to look forward for a treat; for such lectures were written in clear, terse language, with here a classical allusion and there a racy anecdote, and though perhaps not eloquently delivered, were yet delivered with an earnestness that never allowed the attention to flag. It is to Dr. Kilgour also that the Aberdeen Infirmary owes the establishment of its pathological museum. During his early professional career Dr. Kilgour delivered lectures on Materia Medica, and when the private lectures were associated by King's College into a second medical school, he took the position of lecturer on the Practice of Medicine, an appointment which he held for about a dozen years.

To the students he was always courteous, and in their welfare he took a deep interest; while his kindly manner endeared him to all coming under his care, either in the hospital or in private practice.

Soon after his appointment to the Hospital, he began to be referred to as a consulting physician, and this part of his practice increased till he latterly gave up family practice entirely. In a town like Aberdeen, it is seldom that a man can devote himself to consulting practice alone, and hence of necessity any consultation work falls into the hands of men who, like the consulter, are carrying on general practice. In such a case the consultee, if he be an unscrupulous man, may make use of his position to damage the ordinary attendant, and secure the family as patients to himself; and one often hears complaints of such a course being pursued in towns situated similarly to Aberdeen. Dr. Kilgour, however, was far above such petty conduct; he had a thorough hatred of humbug in every shape, and when he was called in by a fellow-practitioner his conduct could always be relied on as being strictly honest and upright. The consequence of all this was that no man was more respected and beloved by his professional brethren; hence at the social gatherings of the profession, at which he was always present, his health was received with enthusiasm as almost the toast of the evening; and if any public movement was to be made by the profession, the name of Dr. Kilgour at its head gave the movement weight, not only with the public, but with his brethren. Thus, when the North of Scotland Medical Association was started, Dr. Kilgour was at once named as the first president; and when the graduates of the University of Aberdeen had to appoint for the first time an assessor to the University Court (the newly instituted ruling body of the University), Dr. Kilgour was elected by a large majority—a majority which contained nearly every vote given by the medical graduates. At the next election; in 1864, his friends and supporters in the Council were fairly caught napping, so that he then missed election, but at the following one, in 1868, he was again elected, and, but for failing health, would doubtless have been again appointed in 1872.

In 1864, Dr. Kilgour retired from his position as Physician to the Infirmary—a step which was doubtless hastened by the sad death of his nephew, Dr. George Carr, who died of fever caught in the discharge of his duties as Physician to the Infirmary. Dr. Kilgour had looked forward to seeing Dr. Carr succeed him in his position in Aberdeen (a position for which he was admirably fitted), and his early death so affected his uncle that he could never again enter the hospital wards without pain. On his retirement, Dr. Kilgour was appointed Consulting-Physician—a position which he resigned some years ago (1871), when he was compelled to give up practice entirely on account of failing health. He then retired to his estate at Loirston, near Aberdeen, and there he died, after a lengthened and painful illness.

Dr. Kilgour did not leave many professional writings behind him. The chief of these was a work on therapeutics and hygiene, long since out of print, and written while the author was still a young man. It contains many admirable chapters, and the whole is written in that racy, shrewd, and attractive manner to which we have already referred as characterising his clinical lectures. Indeed, many of the views there brought forward, especially in regard to public hygiene, have of late years been revived, and it is not too much to say that with all the advance that science has made since the date of its publication, the work, with very little alteration, might serve as a text-book on these subjects even at the present day.

Dr. Kilgour was twice married, and a widow and only son survive him to mourn their loss.

Mr. Lawson Tait has been elected a Foreign Member of the Obstetrical Society of Berlin.

University of Cambridge.—At a Congregation on the 26th ult., Messrs. David Bridge Lees, of Trinity College, and Robert Harry Hughes, of Jesus College, obtained the degree of Bachelor of Medicine; and on the 27th ult. the degree of Doctor in Medicine was conferred upon Mr. Francis Charlewood Turner, of Trinity College.

MEDICAL NEWS.

APOTHECARIES' HALL.—The following gentlemen passed their examination in the Science and Practice of Medicine, and received Certificates to practise, on Thursday, February 26:—

Bond, George Weddall, Pulham St. Mary, Norfolk.
Pilkington, Henry Oldfield, Lime-street, Preston.

The following gentlemen also on the same day passed their primary professional examination:—

Collins, Henry Abdy, Guy's Hospital.
Rygate, Brougham Robert, London Hospital.
Sincock, John Bain, London Hospital.

APPOINTMENTS.

*** The Editor will thank gentlemen to forward to the Publishing-office, as early as possible, information as to any new Appointments that take place.

CRAWFORD, COOPER HAYES, M.D.—Assistant-Physician to the Staffordshire General Infirmary.

DE LA MOTTE, PETER, L.R.C.P. Edin., M.R.C.S. Eng., L.S.A.—Medical Officer for the Swanage District of Wareham and Purbeck Union.

HALL, FRANCIS DE HAVILLAND, M.D. Lond., M.R.C.P., M.R.C.S. Eng., L.S.A.—Assistant-Physician to the Metropolitan Free Hospital, Devonshire-square.

MORGAN, HERBERT MAJOR, L.R.C.P. Lond., M.R.C.S. Eng.—Medical Officer for the Workhouse, and Medical Officer for the St. Chad District of Lichfield Union.

ORMSBY, JOHN, L.R.C.P., L.R.C.S.—Medical Officer for the Astley District of Martley Union, Worcestershire.

PARRY, DAVID L., L.R.C.P. Edin., L.R.C.S. Edin.—House-Surgeon to the Infirmary and Dispensary, Bridgnorth, Salop.

WATSON, JOHN WOODROW, L.R.C.S., L.M., C.M.—Medical Officer to the Newtown, Limavady Dispensary.

NAVAL APPOINTMENTS.

ADMIRALTY.—John Wood, Surgeon, to the *Duke of Wellington*; W. J. Morier, Surgeon, to the *Duncan* (additional), for service in Naval Barracks.

In accordance with the provisions of an Order in Council of February 21, 1874, W. H. Sloggett, Esq., has been promoted to the rank of Deputy Inspector-General of Hospitals and Fleets in her Majesty's Fleet, with seniority from that date.

BIRTHS.

DUNDAS.—On January 4, at Port Blair, the wife of George Albert Dundas, M.R.C.S., L.R.C.P. Lond., Bengal Army, of a daughter.

EADY.—On February 26, at 14, High-street, Wandsworth, the wife of G. J. Eady, L.R.C.P. Edin., M.R.C.S. Eng., of a daughter, stillborn.

JONES.—On February 21, at Ty-mawt, Aberdare, the wife of Evan Jones, M.R.C.S. Eng., L.S.A., of a son.

LOMAS.—On March 3, at 99, Gower-street, W.C., the wife of William Lomas, M.D., of a daughter.

LONGHURST.—On February 24, at Weymouth, the wife of Dr. Longhurst, 60th Rifles, of a son.

MUIRHEAD.—On February 17, at 7, Heriot-row, Edinburgh, the wife of Claud Muirhead, M.D., of a daughter.

TIMOTHY.—On February 28, at 3, Camden Villas, Lewisham, the wife of P. V. Timothy, L.R.C.P. Lond., of a daughter.

WILLS.—On February 5, at Government House, Barbadoes, the wife of C. S. Wills, Army Medical Staff, of a daughter.

MARRIAGES.

FOWLER—FISHER.—On February 26, at St. Mary, Redcliff, Bristol, Charles W. Lindsey Fowler, late Lieut. 46th Regiment, only son of the late Charles Fowler, F.R.C.S., of Cheltenham, to Emily Augusta, youngest daughter of the late Rev. J. T. Fisher, rector of Uphill, Somersetshire, and of Langford House in the same county.

IRVING—ARMSTRONG.—On January 29, at Meerut, India, Lewis Allen Irving, L.K.Q.C.P., L.R.C.S.I., Army Medical Department, son of Major-General Irving, C.B., Royal Artillery, to Charlotte Mary, eldest daughter of the late Rev. George F. A. Armstrong, rector of Lorum, co. Carlow, Ireland.

JACKSON—SMITH.—On February 25, at Balnagarth, Francis Edward Jackson, M.B., M.R.C.S., only son of Francis Jackson, Esq., of Chertsey, Surrey, to Margaret Alexa, younger daughter of the late Francis Smith, Esq., Balnagarth.

DEATHS.

ARMSTRONG, SALKELD, son of Surgeon-Major Armstrong, 6th Inniskilling Dragoons, at Newbridge, of typhoid fever, on February 23, aged 9.

ARNOTT, NEIL, M.D., F.R.S., Physician-Extraordinary to the Queen, at his residence, 2, Cumberland-terrace, Regent's-park, N.W., on March 2, in his 86th year.

COPE, JOSEPH STAINES, M.R.C.S. Eng., formerly of Wareham, Dorset, at his residence, North Adelaide, S. Australia, on December 16, aged 85.

MUIRHEAD, JANET J. JAMESON TORRIE, wife of Claud Muirhead, M.D., at 7, Heriot-row, Edinburgh, on February 27.

VACANCIES.

In the following list the nature of the office vacant, the qualifications required in the Candidate, the person to whom application should be made, and the day of election (as far as known) are stated in succession.

BERKS COUNTY ASYLUM, MOULSFORD, WALLINGFORD.—Assistant Medical Officer. Candidates must be duly qualified. Applications, with testimonials, to Dr. R. B. Gilland, Medical Superintendent.

BLOOMSBURY DISPENSARY, 62, GREAT RUSSELL-STREET.—Resident Medical Officer. Applications, with testimonials, to the Secretary, on or before March 16.

BRISTOL GENERAL HOSPITAL.—Assistant House-Surgeon. Candidates must be duly qualified. Applications, with testimonials, to the Secretary, on or before March 20.

EDMONTON.—Medical Officer of Health. Candidates must be legally qualified medical practitioners, and registered under the Medical Act of 1858. Applications, with testimonials, to Mr. W. Pulley, Clerk, on or before March 14.

GENERAL HOSPITAL, NOTTINGHAM.—Physician. Candidates must be duly qualified. Applications, with testimonials, to the Chairman of the Qualification Committee, on or before March 10.

HOLBEACH UNION.—Medical Officer for the Sutton Bridge District. Applications, with testimonials, to the Clerk of the Union, on or before March 15.

NARBERTH UNION.—Medical Officer. Candidates must be duly qualified. Applications, with testimonials, to Mr. John Thomas, Clerk, on or before March 21.

NORTH LONDON CONSUMPTION HOSPITAL, HAMPSTEAD.—Candidates must be F. or M.R.C.P. and graduates of a university (or qualify within twelve months). Applications, with testimonials, to the Secretary, Mr. W. Hornibrook, at the offices, 216, Tottenham Court-road, W., on or before April 15.

ONGAR UNION, ESSEX.—Medical Officer. Applications, with testimonials, to Mr. Charles Mott, Chipping Ongar, on or before March 23.

QUEEN'S HOSPITAL, BIRMINGHAM.—House-Physician, also House-Surgeon. Candidates for these appointments must be legally qualified medical practitioners and registered. Applications, with testimonials, to Mr. W. Young, Secretary, on before March 21.

RHAYADER UNION.—Two Medical Officers. Candidates must be duly qualified and registered. Applications, with testimonials, to Mr. John Jarman, Clerk to the Guardians, on or before March 9.

SALOP AND MONTGOMERY COUNTIES LUNATIC ASYLUM.—Assistant Medical Officer. Applications, with testimonials, to G. De Courcy Peele, Esq., Clerk to the Visitors, Town Hall, Shrewsbury, on or before March 10.

TORBAY INFIRMARY AND DISPENSARY, TORQUAY.—House-Surgeon and Secretary. Candidates must be duly qualified. Applications, with testimonials, to the Secretary, on or before March 7.

UNION AND PAROCHIAL MEDICAL SERVICE.

*** The area of each district is stated in acres. The population is computed according to the census of 1871.

RESIGNATIONS.

Droitwich Union.—The Hartlebury District is vacant; area 6665; population 2366; salary £50 per annum.

Erpingham Union.—Mr. George R. Lake has resigned the North Walsham District; area 9440; population 2875; salary £52 per annum.

Ongar Union.—Mr. John R. Clouting has resigned the First District; area 13,730; population 3105; salary £105 per annum.

Romney Marsh Union.—Mr. Wood has resigned the New Romney District; area 18,903; population 2982; salary £100 per annum. Also the Workhouse; salary £30 per annum.

St. Neot's Union.—Dr. Rix has resigned the First District; area 13,690; population 6444; salary per case. Also the Workhouse; salary £40 per annum.

Torrington Union.—The Peter's Marland District is vacant; area 2200; population 316; salary £4 3s. per annum.

APPOINTMENTS.

Carlisle Union.—George Murphy, M.R.C.S. Eng., L.R.C.P. Edin., to the Stanwix District.

Cerne Union.—Mr. Wm. McEnery, L.K.&Q.C.P. Ire., L.R.C.S. Ire., to the Workhouse.

Chorley Union.—George Tobin, M.R.C.S. Eng., L.S.A., to the Rivington District.

Cranbrook Union.—Wm. P. Hollis, L.R.C.P. Edin., M.R.C.S. Eng., to the Benenden District.

Dunmow Union.—Horatio E. Maunsell, M.B. & M.Ch., to the High Easter District.

Hambledon Union.—James Doubleday, M.B. Lond., M.R.C.S. Eng., L.S.A. Lond., to the Chiddingfold District.

Hanley Borough.—Mr. Wentworth L. Scott, as Analyst.

Hollingbourn Union.—Lucius Warrillow, M.R.C.S. Eng., L.S.A., to the Headcorn District.

Kingston (Surrey) Union.—Wm. Jeynes, M.R.C.S. Eng., L.S.A., to the Kingston District.

Lincoln Union.—Thos. M. Wilkinson, L.R.C.P. Edin., L.R.C.S. Edin., L.S.A., to the Second and Eleventh Districts.

Stratford-on-Avon Union.—Wm. H. Clarke, L.R.C.P. Edin., L.R.C.S. Edin., to the Workhouse.

West Bromwich Union.—Henry Sainsbury, M.R.C.S. Eng., L.S.A., L.F.P.&S. Glasg., to the First Oldbury District.

Williton Union.—Thos. J. Ollerhead, L.R.C.P. Edin., L.R.C.S. Edin., to the Minehead District.

DEATH OF DR. FORBES WINSLOW.—This distinguished member of our profession died at Brighton on the 3rd inst., after only a few days' illness, of bronchitis and pneumonia, in the sixty-fourth year of his age, having been born in August, 1810, in Queen's-row, Pentonville. He was the ninth son of Captain Thomas Winslow, of her Majesty's 47th Regiment, a descendant of the Winslows of Massachusetts, who were so much respected at Boston that to this day a chair in which Governor

Winslow sat when administering justice is preserved by the Government. During the Revolutionary War the family were noted for their attachment as Royalists to the British Crown, and consequently lost large possessions when American independence was declared. Dr. Winslow received his preliminary education in Scotland, after which he was removed to a grammar school near London, and ultimately completed it at Manchester. His professional studies were followed at University College, and afterwards at the Middlesex Hospital under Sir Charles Bell. Whilst waiting for practice, he commenced writing for the daily and weekly newspapers, as well as the medical journals, until permanently appointed on the *Times*—an engagement which continued uninterruptedly for some years, after which a greatly increasing practice compelled him to resign this source of income. His pen was now employed exclusively on professional subjects, a list of which will be found on reference to the "Medical Directory." Dr. Winslow's name often appeared before the public in consequence of the many civil and criminal cases in which he was called on to give evidence by the law officers of the Crown; amongst these may be particularly mentioned that of McNaughten, for the murder of Mr. Drummond. He was selected by the Lord Chancellor as his medical officer in the celebrated case of Mrs. Cumming, when he gave an elaborate official report proving the lady to be sane; in the trial of Atkinson for the murder of his sweetheart; in the case of Mrs. Brough, the wet-nurse of H.R.H. the Prince of Wales, who murdered her six children; of Weston, who shot Mr. Waugh, the solicitor; of Mrs. Vyse, who murdered her children; and in the case of Mr. Fussell, involving a question as to the capacity to manage property to the extent of £250,000. In 1847, Dr. Winslow established the *Quarterly Journal of Psychological Medicine*, and conducted it for seventeen years, only giving it up when professional engagements became too pressing. Dr. Winslow, who was a most liberal and kind-hearted man, leaves a widow and family of sons and daughters. A full obituary notice of Dr. Winslow shall appear next week.

THE REGISTRAR-GENERAL has given instructions to Mr. Buzzard, Superintendent Registrar of St. James's, Westminster, to allow the registrars of births in that parish to give to every person who registers the birth of a child a copy of Dr. Lankester's "Plain Rules for the Management of Infants." These rules have been drawn up by Dr. Lankester under the conviction that a large amount of death amongst children is due to a want of knowledge on the part of mothers as to how to manage them whilst they are infants. The action on the part of the Vestry of St. James's, Westminster, in printing these "Rules" for distribution in their parish, is undoubtedly a step in the right direction, and there can be no doubt, if all other parishes in the kingdom would do the same, it would be the means of disseminating a large amount of valuable information and of saving the lives of thousands of children. Copies of the pamphlet can be procured at the Vestry Hall, and at Hardwicke's, 192, Piccadilly.

MODE OF TRANSPORTING CHILDREN IN JAPAN.—In a communication to the *Union Médicale*, February 24, Dr. Vidal, the director of the Hospital Medical School at Niigata, Japan, describes the mode of carrying young children in Japan, which, he says, possesses many advantages for mother and child. The child from its birth to the third or fourth year is always and everywhere carried in a very simple manner on the back. The national dress consists of a long robe (*kimono*) with wide sleeves, which is open in front along its whole length, being tightened round the trunk by a girdle. It is nearly alike in both sexes; but in the women the girdle is several metres in length, and from twenty-five to thirty centimetres in breadth. This is passed several times around the body, keeping the two sides of the robe exactly crossed. The latter is so simple and so fashioned, that by slightly separating the crossed sides in front of the chest a space of more or less size is left between the robe and the back, which is in the shape of a funnel, closed below by the girdle. In this space the infant is placed, having its limbs quite free, and only its head appearing above the *kimono*. In this way it is kept warmly in contact with the mother, while she is left at liberty in all her movements, and bears her burthen with the least possible fatigue. Indeed, it is quite common to see children not more than five or six years old thus carrying children younger than themselves, and pursuing all their games notwithstanding. The infants thus carried do not seem to suffer any inconvenience, sleeping even when shaken about, and crying when placed in the arms until restored to their nest. When a child even five or six years old falls ill, the first thing he demands is to be placed on his nurse's back; and the children of Europeans are nursed in this way without inconvenience. Dr. Vidal states that so rare are deformities, that in nearly a thousand patients he has not met an instance.

NOTES, QUERIES, AND REPLIES.

He that questioneth much shall learn much.—*Bacon.*

Dr. Reed, Pentridge.—Enclosure received.

H. B. Warrington.—We know of none such.

Orphan.—You might try the British Orphan Asylum, Poultry, E.C.

H. P. L. B.—The late Dr. John Murray was Assistant-Surgeon of the London Scottish Volunteer Corps.

D. S. A.—According to a recent return, the number of deaths registered from zymotic diseases in England and Wales in 1871 was 123,080.

Henry Greenway.—We really must decline to adjudicate on the matter, whether publicly or privately, but with every expression of esteem for Mr. Greenway's letter.

Nemo.—The proportion of children raised, according to Dr. Farr, has doubled within a hundred years. In London the proportion of deaths under five years were—1730 to 1749, 74·5 per cent.; 1770 to 1789, 51·5 per cent.; 1851 to 1870, 29·8 per cent.

Dr. W. B. F., Boston, U.S.A.—No. 1. In a hollow at the tip of the coccyx, between the tendons attached to that part. 2. At all ages. 3 and 4. Not to our knowledge.

Dr. A. D.—Mr. Le Gros Clark, the Senior Vice-President of the College, will deliver the Hunterian Oration next year. The address is now only given biennially.

A. P. D., St. Bartholomew's.—Sir George Burrows, as stated in the *Medical Times and Gazette* last week, holds the higher appointment of "Physician-in-Ordinary to her Majesty the Queen." The *Lancet* fell into the mistake by quoting an article from the *Times* stating that he was "Physician-Extraordinary."

M.R.C.S., Manchester.—Mr. Thomas Turner was elected a member of the Council of the College of Surgeons with Sir James Paget in 1865. He died on December 17 last in his 81st year, and was interred at Marten, Skipton-in-Craven. He was a Cornishman by birth.

Le Roi est Mort, Vive le Roi!—We have traced the report of the death of Professor Huxley to our French contemporary *La Révue Scientifique* for the 21st ult., where, in a notice of the "Morts de Quetelet et d'Huxley," it is stated of the latter—"Mais une mort tout à fait inattendue et aussi douloureuse pour la science est celle du grand naturaliste anglais Huxley, qui vient d'être enlevé subitement, tout jeune encore, au moment le plus fécond de sa carrière." Professor Huxley is, we are glad to say, quite well. Long may he continue so! He received his professional education at the Charing-cross Hospital, and is a Member of the Royal College of Surgeons.

EARLY EPIDEMICS OF DENGUE.

TO THE EDITOR OF THE MEDICAL TIMES AND GAZETTE.

SIR,—There is an epidemic fever described as "an inflammatory fever lately prevalent in Calcutta" in 1823, of which an account is given by Dr. Mellis in vol. i. of the *Transactions of the Medical and Physical Society of Calcutta*. There was ardent fever, scarlet rash, rheumatic pains, relief from purgatives, small mortality, and universal prevalence. Was this dengue?

I am, &c., INERS.

[**** *Vide* Copland's "Dictionary."]

P. P.—It is a very common artifice in rhetoric to disparage a man by praising him for excellence in some secondary or irrelevant quality. Thus Flaxman used to praise Canova, not for his sculpture, but for his moral character. Abernethy said that Astley Cooper was clever with his fingers. One great physician, the late Dr. C., said of another that his house and furniture were the neatest of any physician's in London. And to praise a professional man for excellence in any extra-professional accomplishment was generally meant to be condemnatory of his professional skill, and used to be so. But times are now more liberal, and a man may be considered not a worse, but a better practitioner of physic, because his mind is ample enough to embrace language or one of the fine arts.

Corrigendum.—In Mr. Hulke's Lecture "On Fracture of the Vertebral Column," page 230, twelve lines from bottom of the first column, *for* "anus" *read* "arms."

COMMUNICATIONS have been received from—

Dr. MAC CORMAC, Belfast; Mr. J. QUARTON, York; Mr. G. F. MASTERMAN, Burnham, Maidenhead; Dr. B. W. RICHARDSON, London; THE REGISTRAR OF THE PARISH OF ST. JAMES'S, Westminster; Mr. GORDON BROWN, London; THE DIRECTOR-GENERAL OF THE ARMY MEDICAL DEPARTMENT; A DIETETIC REFORMER; THE MILITARY SECRETARY OF THE INDIA OFFICE; Mr. WARRINGTON, Barnsbury; THE SECRETARY OF APOTHECARIES' HALL; Dr. ALEXANDER PATERSON, Upper Norwood; Dr. FIDDIAN, Cardiff; Dr. C. H. CRAWFORD, Stafford; ORPHAN; Dr. A. LESLIE MEASE, Armagh; Dr. D. L. PARRY, Liverpool; Mrs. E. S. GIBBS, London; Mr. SCATCHARD, Boston Spa; THE SECRETARY OF THE LONDO

ANTHROPOLOGICAL SOCIETY; Dr. J. W. ALLAN, Fort William; THE SECRETARY OF THE CLINICAL SOCIETY; Dr. A. WILTSHIRE, London; Dr. W. H. PARSEY, Hatton; Miss YOUNG, Ecclefechan; THE SECRETARY OF THE METROPOLITAN FREE HOSPITAL; Mr. A. WILLETT, London; Mr. B. VINCENT, London; Mr. W. S. FLEMING, Newtown, Limavady; Dr. J. OLIVER, Maidstone; Mr. W. W. WAGSTAFFE, London; Mr. CHRISTOPHER HEATH, London; Dr. HANDFIELD JONES, London; Mr. C. S. JEAFFRESON, Newcastle-on-Tyne; Mr. CARTER BLAKE, London; Professor LAYCOCK, Edinburgh; Mr. J. CHATTO, London; Mr. LAMBTON YOUNG, London.

BOOKS RECEIVED—

Clinical Report on the Rotunda Lying-in Hospital—Report of the Medical Officer of Health for the Port of London—Die Offene Wundbehandlung nach Erfahrungen aus der chirurgischen Klinik zu Zürich, von Dr. R. U. Krönlein—Barker on Puerperal Diseases—Nouveau Dictionnaire de Médecine et de Chirurgie Pratiques, vol. xviii.—Die Kittsubstanz auf Reaction des Argentum Nitricum, von Dr. Robinski—Carpenter's Mental Physiology—What is Wine? by J. L. Denman—Meigs and Pepper on the Diseases of Children, fifth edition.

PERIODICALS AND NEWSPAPERS RECEIVED—

Lancet—British Medical Journal—Medical Press and Circular—London Medical Record—Nature—Pharmaceutical Journal—Irish Hospital Gazette—Berliner Klinische Wochenschrift—La France Médicale—La Tribune Médicale—Le Progrès Médical—The Pocket Edition of the Gleaner—The Obstetrical Journal of Great Britain and Ireland—Gazette Hebdomadaire—Allgemeine Wiener Medizinische Zeitung—Le Mouvement Médical—Il Progresso Medico Giornale, per I Sanitari Comunial—Indian Medical Gazette—L'Archives Générales de Médecine—Transactions of the Odontological Society, vol. vi., No. 4—La Gazette Médicale—Students' Journal and Hospital Gazette—Gazette des Hôpitaux—Monthly Microscopical Journal—Science Gossip—The Scotsman.

APPOINTMENTS FOR THE WEEK.

March 7. Saturday (this day).

Operations at St. Bartholomew's, 1½ p.m.; King's College, 2 p.m.; Charing-cross, 2 p.m.; Royal Free, 9 a.m. and 2 p.m.; Hospital for Women, 9½ a.m.; Royal London Ophthalmic, 11 a.m.; Royal Westminster Ophthalmic, 1½ p.m.; St. Thomas's, 9½ a.m.

9. Monday.

Operations at the Metropolitan Free, 2 p.m.; St. Mark's Hospital for Diseases of the Rectum, 2 p.m.; St. Peter's Hospital for Stone, 3 p.m.; Royal London Ophthalmic, 11 a.m.; Royal Westminster Ophthalmic, 1½ p.m.

MEDICAL SOCIETY OF LONDON, 7 p.m. 101st Anniversary. Awardment of Medals, Dinner, &c., at St. James's Hall.

ROYAL COLLEGE OF SURGEONS OF ENGLAND, 4 p.m. Mr. W. K. Parker's Lecture on "The Structure and Development of the Vertebral Skull."

10. Tuesday.

Operations at Guy's, 1½ p.m.; Westminster, 2 p.m.; National Orthopædic, Great Portland-street, 2 p.m.; Royal London Ophthalmic, 11 a.m.; Royal Westminster Ophthalmic, 1½ p.m.; West London, 3 p.m.

ANTHROPOLOGICAL INSTITUTE, 8 p.m. Meeting.

ROYAL INSTITUTION, 3 p.m. Prof. Tyndall, "On the Physical Properties of Liquids and Gases."

ROYAL MEDICAL AND CHIRURGICAL SOCIETY, 8 p.m. Mr. G. Gaskoin, "On the Relations of Asthma to Cutaneous Disease." Dr. Haynes, "On the Amount of Carbonic Acid found by Experiment in the Air on board Wooden Frigates." Mr. Savory will show the Upper and Lower Jaw Bones from a Case of Necrosis from Phosphorus.

11. Wednesday.

Operations at University College, 2 p.m.; St. Mary's, 1½ p.m.; Middlesex, 1 p.m.; London, 2 p.m.; St. Bartholomew's, 1½ p.m.; Great Northern, 2 p.m.; St. Thomas's, 1½ p.m.; Samaritan, 2½ p.m.; King's College (by Mr. Wood), 2 p.m.; Royal London Ophthalmic, 11 a.m.; Royal Westminster Ophthalmic, 1½ p.m.

EPIDEMIOLOGICAL SOCIETY, 8 p.m. Inspector-General R. Lawson, "On Errors in the Usual Method of Investigating the Causes of Epidemics."

ROYAL COLLEGE OF PHYSICIANS, 5 p.m. Croonian Lectures—Dr. Murchison, "On Functional Derangements of the Liver."

ROYAL COLLEGE OF SURGEONS OF ENGLAND, 4 p.m. Mr. W. K. Parker's Lecture on "The Structure and Development of the Vertebral Skull."

12. Thursday.

Operations at St. George's, 1 p.m.; Central London Ophthalmic, 1 p.m.; Royal Orthopædic, 2 p.m.; University College, 2 p.m.; Royal London Ophthalmic, 11 a.m.; Royal Westminster Ophthalmic, 1½ p.m.

HUNTERIAN SOCIETY (London Institution), (Council Meeting, 7½ p.m.), 8 p.m. Dr. Barnes's Inauguration Address. Mr. Reeves, "Some Cases of Excision of the Hip- and Knee-Joints." Mr. Corner, "Excision of the Elbow." Mr. Rendle, "Excision of the Hip-Joint."

ROYAL INSTITUTION, 3 p.m. Prof. W. C. Williamson, "On Cryptogamic Vegetation, Ferns, and Mosses."

13. Friday.

Operations at Central London Ophthalmic, 2 p.m.; Royal London Ophthalmic, 11 a.m.; South London Ophthalmic, 2 p.m.; Royal Westminster Ophthalmic, 1½ p.m.; St. George's (ophthalmic operations), 1½ p.m.

CLINICAL SOCIETY, 8½ p.m. Dr. Buzzard, "Case of General Paralysis (both sides of Face, four Extremities, Respiration, Deglutition)—Recovery under anti-Syphilitic Treatment." Adjourned Debate on the President's Address "On Pyæmia."

ROYAL COLLEGE OF PHYSICIANS, 5 p.m. Croonian Lectures—Dr. Murchison, "On Functional Derangements of the Liver."

ROYAL COLLEGE OF SURGEONS OF ENGLAND, 4 p.m. Mr. W. K. Parker's Lecture on "The Structure and Development of the Vertebral Skull."

ROYAL INSTITUTION (Weekly Evening Meeting, 8 p.m.), 9 p.m. Dr. C. R. A. Wright, "The Chemical Changes accompanying the Smelting of Iron in Blast Furnaces."

VITAL STATISTICS OF LONDON.

Week ending Saturday, February 28.

BIRTHS.

Births of Boys, 1185; Girls, 1145; Total, 2330.
Average of 10 corresponding years 1864-73, 2299·4.

DEATHS.

	Males.	Females.	Total.
Deaths during the week	884	870	1754
Average of the ten years 1864-73	794·8	768·7	1563·5
Average corrected to increased population	...	...	1720
Deaths of people aged 80 and upwards	...	...	84

DEATHS IN SUB-DISTRICTS FROM EPIDEMICS.

	Population, 1871.	Small-pox.	Measles.	Scarlet Fever.	Diphtheria.	Whooping-cough.	Typhus.	Enteric (or Typhoid) Fever.	Simple continued Fever.	Diarrhœa.
West	561359	...	24	2	2	7	1	3	4	3
North	751729	1	13	1	1	16	2	5	...	3
Central ...	334369	...	8	1	1	10	2	3	1	...
East	639111	...	13	8	1	15	1	1	1	5
South	967692	...	17	1	...	21	1	6	3	5
Total	3254260	1	75	13	5	69	7	18	9	16

METEOROLOGY.

From Observations at the Greenwich Observatory.

Mean height of barometer	29·563 in.
Mean temperature	42·2°
Highest point of thermometer	55·9°
Lowest point of thermometer	29·1°
Mean dew-point temperature	38·7°
General direction of wind	Variable
Whole amount of rain in the week	0·77 in.

BIRTHS and DEATHS Registered and METEOROLOGY during the Week ending Saturday, February 28, 1874, in the following large Towns:—

Boroughs, etc. (Municipal boundaries for all except London.)	Estimated Population to middle of the year 1874.*	Persons to an Acre. (1874.)	Births Registered during the week ending Feb. 28.	Deaths Registered during the week ending Feb. 28.	Temperature of Air (Fahr.) Highest during the Week.	Lowest during the Week.	Weekly Mean of Mean Daily Values.	Temp. of Air (Cent.) Weekly Mean of Mean Daily Values.	Rain Fall. In Inches.	In Centimetres.
London	3400701	45·1	2330	1754	55·9	29·1	42·2	5·67	0·77	1·96
Portsmouth ...	120436	26·8	74	48	55·6	30·2	43·0	6·11	1·24	3·15
Norwich	82257	11·0	58	49	52·0	29·0	39·7	4·28	0·81	2·06
Bristol	192389	43·3	124	123	...	...	...	...	...	...
Wolverhampton ...	70896	20·9	61	32	51·3	33·1	41·5	5·28	1·58	4·01
Birmingham ...	360892	43·0	304	201	52·0	31·2	42·0	5·56	1·22	3·10
Leicester	106202	33·2	87	43	52·5	31·7	41·5	5·28	0·97	2·46
Nottingham ...	90894	45·5	62	43	48·4	30·3	40·2	4·55	0·96	2·44
Liverpool	510640	98·0	349	285	50·2	35·0	42·0	5·56	0·31	0·79
Manchester ...	355339	82·8	275	204	54·0	32·0	41·5	5·28	0·67	1·70
Salford	133068	25·7	136	73	54·2	29·0	41·4	5·22	0·52	1·32
Oldham	86281	18·5	66	60	47·0	...	...	...	0·73	1·85
Bradford ...	163056	22·6	108	75	48·8	32·0	39·8	4·33	0·64	1·63
Leeds	278798	12·9	176	178	49·0	31·0	41·5	5·28	0·81	2·06
Sheffield	261029	13·3	217	189	53·0	30·0	41·1	5·06	0·96	2·44
Hull	130996	36·0	92	59	52·0	30·0	41·1	5·06	0·86	2·18
Sunderland ...	104378	31·6	77	50	...	...	...	...	...	...
Newcastle-on-Tyne	135437	25·2	112	64	...	...	...	...	...	...
Edinburgh	211691	47·8	127	96	50·4	29·3	42·0	5·56	0·25	0·63
Glasgow	508109	100·4	340	316	49·4	31·4	41·3	5·17	0·24	0·61
Dublin	314666	31·3	166	177	54·0	30·4	44·0	6·67	0·87	2·21
Total of 21 Towns in United Kingdm	7618655	86·6	5341	4052	55·9	29·0	41·5	5·28	0·80	2·03

At the Royal Observatory, Greenwich, the mean reading of the barometer last week was 29·56 in. The lowest was 29·60 in. on Sunday evening, the 22nd ult., and the highest 29·89 in. on Tuesday morning.

* The figures for the English and Scottish towns are the numbers enumerated in April, 1871, raised to the middle of 1874 by the addition of three years and a quarter's increase, calculated on the rate which prevailed between 1861 and 1871. The population of Dublin is taken as stationary at the number enumerated in April, 1871.

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ORIGINAL LECTURES.

CLINICAL LECTURES

DELIVERED IN UNIVERSITY COLLEGE HOSPITAL.

By CHRISTOPHER HEATH, F.R.C.S.,
Surgeon to the Hospital, and Teacher of Operative Surgery in University College.

ON CASES OF COLOTOMY.

GENTLEMEN,—Within the last few months you have seen me operate on four cases of disease of the rectum by the proceeding commonly known as colotomy—*i.e.*, the formation of an artificial anus in the left loin. This operation, which is known as Amussat's, has been looked upon by most surgeons as a last resource in cases of obstructive disease of the rectum, and consequently its statistics have been very unsatisfactory; for the patient, worn out by the obstruction, has too often died from exhaustion within a few hours of the operation. Of late years, however, it has been proposed to resort to the operation of colotomy comparatively early, and I am decidedly of opinion that, in cases of cancer of the bowel, life may be greatly prolonged in comparative comfort by it; whilst in otherwise incurable diseases of the rectum, such as extensive syphilitic ulceration, the disease is likely to get well, and the patient suffer exceedingly little inconvenience afterwards from the artificial opening.

The first case was in a woman aged twenty-seven, who was admitted for the second time on May 31 with syphilitic ulceration and stricture of the rectum. She had been under my care for some months, but had derived little benefit from treatment. She was constantly passing liquid fæces mixed with purulent discharge, and experienced great pain, which disabled her from following her occupation as a needlewoman. Colotomy was performed on June 4, and the patient made a good recovery, being completely relieved from the pain, and almost entirely from the discharge. No doubt with the healing of the ulceration there will be considerable permanent stricture of the rectum; but this, which is so dangerous a complication in ordinary cases, is a matter of no importance when a free exit for the fæces has already been secured by the opening in the loin.

The case I operated upon here last July was one of obstruction of three weeks' duration, occurring in a woman aged fifty-one, who had had difficulty in defæcating for some months. She had been under medical care, and various remedies had been administered both by the mouth and the rectum without benefit, and when she was brought here the abdomen was immensely distended, and the patient in a suffering and prostrate condition. Percussion of the abdomen showed the large intestine to be greatly distended with fæcal matter, but a digital examination per rectum gave no information, as it was impossible to reach the stricture; a long tube could not be passed beyond the upper part of the rectum. I performed the operation of colotomy on July 5 without any difficulty, and readily reached the distended colon in the left loin. This was attached to the skin, and opened in the usual way, thereby giving exit to a large quantity of liquid fæces. The patient was relieved by the operation, but never rallied thoroughly, like too many of these cases of long-continued obstruction, and died exhausted fourteen hours after the operation.

At the post-mortem examination the upper part of the rectum was found completely obstructed by a cancerous stricture. The wound was healthy; but it was found that in opening the bowel transversely, the reflexion of peritoneum had just been divided, making a clean-cut opening of one-eighth of an inch. There was no evidence of peritonitis, and death must be attributed to exhaustion and shock, rather than to any interference with the peritoneum, which is by no means necessarily fatal.

The third case was in a married woman aged thirty-two, who had recently been confined when she came under my notice in August last. She had suffered, as she thought, from bleeding piles during her pregnancy, and had had advice for that complaint, but does not appear to have been examined. Hæmorrhoids are such a very common accompaniment of pregnancy, that one might be easily thrown off one's guard in prescribing for them; but let me take the opportunity of warning you against prescribing for piles, or at all events any case of bleeding piles, without making an examination, both ocular and digital. Popularly, all diseases of the lower bowel are classed together as "piles," and if you are content to accept the patient's diagnosis, you will find yourselves treating them most unsatisfactorily, and getting into all sorts of difficulties. Our patient had passed not blood merely, but bloody slime—"pieces of jelly," as she said,—and these are highly characteristic of serious disease. A profuse muco-purulent discharge is symptomatic of extensive ulceration, probably syphilitic, but the slimy discharge mixed with sanies is equally characteristic in cases of cancer. So long as cancer is not ulcerated, there is wonderfully little inconvenience from it—so much so, that patients have difficulty in understanding the serious nature of their complaint; but when once ulceration has begun, the distress goes on increasing, until, as in our patient, they are quite prostrated by it. With the finger I had no difficulty in detecting extensive cancerous disease of the rectum, both by rectal and vaginal examination; and this latter method is a very valuable one in cases of rectal disease occurring in women, since without giving any pain it is easy to estimate the extent of the disease through the vaginal wall. The patient suffered such constant pain, rising to agony on the passage of any fæces over the ulcerated cancerous surface, that she was quite willing to submit to any treatment which offered the prospect of alleviation; and I accordingly opened the colon in the left loin without any difficulty, and the patient made a perfectly good recovery. You have seen her here to-day, and heard from her own lips how great has been her relief from suffering, and how small the inconvenience of the artificial opening. Of course the disease is not cured, and will make progress, but I am certain that its progress is delayed by removing all source of irritation. This patient shows very well the condition of the artificial anus some months after the operation, and you will have noticed what a small opening there is, and how little the mucous membrane protrudes. The patient wears no special apparatus, but simply a linen pad and belt of the simplest construction.

The fourth case was in a woman aged twenty-six, admitted here on November 7 suffering from cancer of the bowel with obstruction. I had seen her some weeks before, and found that she had extensive disease of the rectum, already encroaching upon the vagina. The trouble dated from five months back, following the birth of her second child, when she suffered from constipation and some discharge. She had been under treatment, and had had a bougie passed, but without any benefit. It was difficult to persuade this patient or her friends that she was in a precarious state, and the consequence was that she delayed her admission here until she had been for a fortnight without any action of the bowels. However, she suffered little inconvenience from this, apparently, though it had an important bearing on the after history of the case. On passing the finger into the rectum a hard mass was felt, involving the whole circumference of the bowel, and presenting numerous small nodules. In the centre of this was an opening, through which the finger could not be passed. Per vaginam a mass was felt involving the posterior wall of the passage, in the centre of which was a perforation of the mucous membrane; and above the mass the bowel could be felt distended. I performed colotomy on November 12 without difficulty, and a small quantity of dark greenish-looking fæces escaped at the time. For the next few days the patient did fairly well, complaining only of some tenderness in the left loin and of occasional sickness. No fæces passed through the wound; but this I find is a common occurrence, it often being necessary to throw in warm water and even to give castor oil in order to stimulate the bowel—which seems to be temporarily paralysed by the operation—to discharge its contents. When, however, a week had passed without any fæces appearing at the wound—the abdomen being somewhat distended,—I thought it well to use the interrupted galvanic current to stimulate the colon, and as this only induced the passage of flatus, I ordered a dose of castor oil, which was repeated more than once. At last, on the 21st (ninth day), there was a copious motion, to the patient's great relief; but the temperature continued high (100°), and the pulse rapid.

On the 25th the patient looked flushed and hot, the tongue was dry and red, and she complained of pain in the lower part of the abdomen. There was no tenderness on pressure, but the distension continued. Temperature 101°, pulse 120. On the 26th she complained of considerable pain in the upper part of the abdomen, and had passed a very restless night. Temperature 101·4°, pulse 132. On the 27th the patient had improved, the temperature and pulse having fallen, and she

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took her food; but on the 28th she became suddenly and rapidly worse, complaining of very great pain over the abdomen, the skin becoming cold and clammy, the pulse too rapid and feeble to be counted, and the countenance pinched and anxious, and she died early on the morning of November 29.

At the post-mortem examination, upon opening the abdomen the transverse colon was the only portion of bowel visible, being enormously dilated, so as to measure nine inches in circumference, and having a V-shaped curve with the apex in the pelvis. A quantity of fluid containing flakes of lymph was in the abdominal cavity, and the intestines were glued to each other by recent peritonitis. On detaching the point of the V of transverse colon from the subjacent small intestines, to which it was attached by a thick deposit of semi-purulent lymph, some fæcal extravasation occurred, and it appeared that perforation of the colon had taken place at this point. The colon had been opened by the operation at the junction of the transverse with the descending portion, without any damage to the peritoneum, the portion above the artificial anus being much distended, and that below it contracted. Leading down from the wound, and behind the peritoneum, there was discoloration of the tissues as low as the iliac crest, and an abscess was found between the abdominal wall and the peritoneum at this point. On laying open the rectum it was found to communicate freely with the vagina, about two inches above the anus, by a ragged opening, and all around this point the tissues were infiltrated with cancer, giving rise to well-defined nodules in the rectum itself.

This case illustrates very well the evil consequences of delay in cases of cancer of the rectum. If, when I first saw the patient, and before obstruction had occurred, she had consented to the operation, I believe her life would have been prolonged for many months. The perforation of the vagina is a disagreeable but not fatal complication; and I have now a patient on whom I performed colotomy nearly a year ago, who suffers comparatively little inconvenience from an opening which has formed between the two canals. What killed our patient was the over-distension of the transverse colon, which was dragged down by its own weight, and hence was not able to contract upon and expel its contents. Then ulceration occurred in this displaced bowel, with perforation and peritonitis, which proved fatal. The seat of the operation itself was healthy, and the occurrence of an abscess between the layers of the abdominal wall, below the seat of the incision, was a by no means serious complication; unless, indeed, the matter had found its way into the peritoneum, which, indeed, was suspected, but not proved at the post-mortem examination.

So far, then, as you have witnessed the operation of colotomy, the results may not appear very satisfactory, for of four cases two have died; but if I give you my whole number of cases, you will find them somewhat more favourable, for I have had twelve cases with seven immediate recoveries.(a) All the fatal ones were cases in which obstruction had already occurred, with two exceptions—one being a case of advanced cancer in a woman aged sixty-four, and the other a hopeless case of extensive fistulæ from syphilitic disease of the bowel, the patient being exhausted by the long-continued drain at the time of the operation. The successful cases have been examples of cancer in the earlier stages, in which life has been prolonged for many months, and of obstinate syphilitic ulceration of the rectum, in which the disease has been greatly alleviated, if not cured. In one case I performed colotomy successfully, nearly two years ago, for the relief of a lady who suffered from constant passage of fæces into the bladder, with great irritation of that viscus and occasional blocking of the urethra. This had followed on a pelvic abscess, which had established a communication between the upper part of the rectum and the bladder. The operation was perfectly successful in diverting the flow of fæces, so that the patient has no vesical trouble and suffers little or no inconvenience from the artificial anus, except when diarrhœa happens to be present.

The operation itself is a comparatively easy one. The space between the last rib and the crest of the ilium is often much diminished in women by the use of stays, and it is important therefore to increase this as much as possible by placing a firm pillow beneath the loins, and allowing the shoulders and head to be lowered. The bowel will, in the great majority of cases, be found about half an inch behind the middle of the crest of the ilium, and it is convenient to mark this with an ink line before beginning the operation. An incision four inches long, parallel to the crest of the ilium, beginning two inches in front of the ink line, is quite long enough, and may be carried steadily down through the muscles, which retract as divided, until the white fascia lumborum is reached. Before opening this, it is well, I think, to twist any bleeding vessel, and sponge out the wound thoroughly, and then to pick it up and make a small opening into which a director is inserted. The fascia is then to be divided to the full extent of the wound, and a couple of retractors inserted to hold it open as widely as possible. A quantity of fat will now be brought into view, however attenuated the patient may appear, and in stout subjects the amount of it is inconvenient; this is best displaced or torn through with the fingers, when the bowel will be felt, and can be drawn forward by tearing through the fascia transversalis. This fascia transversalis is, I believe, often mistaken for the peritoneum, which is a good deal deeper and more in front; but it may be torn through without risk to the patient, and the bowel will at once be felt and seen. In cases of obstruction, when the bowel is much distended, there can be no difficulty in reaching it, and it has been the practice of some surgeons to distend the bowel with water in cases where no obstruction exists. I used to follow this plan; but it is so inconvenient to carry out, and is really of so little actual service, that I have given it up, and believe that with a little practice it is as easy and as safe to open an empty as a distended colon. In order, however, to run no risk of wounding the peritoneum, it is well to turn the bowel well forward before opening it, so as to insure reaching the part uncovered by peritoneum; and when, as sometimes happens, the empty bowel eludes the finger, it is a good plan to turn the patient on his back for a moment, when the colon falls down into the surgeon's hand—a manœuvre I learnt from Mr. Bryant.

You will find that in colotomy the bowel is opened much higher than is generally supposed. If you pass your finger into the artificial anus, you will find that it goes horizontally across the abdomen, and that, in fact, it is quite the top of the descending colon which is opened, and that the finger goes into the transverse colon; and this we have had unfortunately the opportunity of verifying in the post-mortem room. Whatever part of the bowel is reached, however, should be drawn forward, and a curved needle, carrying a stout silk, is to be passed through it at the upper border of the wound, and another needle and silk at the lower border. The ends of the sutures are then to be attached to the skin on each side of the inked line, and thus the bowel is securely fixed and held before being opened. A horizontal cut—which I prefer to a vertical one—is then to be made in the bowel between the sutures, the loops of which can be drawn out of the interior of the bowel and cut, thus producing four sutures, which have only to be tied to effectually secure the bowel to the skin. A suture should also be put in at each end of the wound. I prefer a horizontal to a vertical incision in the bowel, because I think it makes a more satisfactory anus afterwards, and avoids all risk of cutting the sutures at the time; but this is, after all, a small matter. As I have already mentioned, you will find that fæces do not, as a rule, pass for a few days; but when once the action of the bowels is regularly established, all goes on well. I prefer a dressing of oakum at first, followed by poultices if there is much tenderness about the wound. It is to be borne in mind that the bowel below the point where the anus is made will in all probability contain fæces, and should therefore be washed out from the lower of the two openings at the anus, which is separated from the upper opening, through which the fæces pass, by a spur of mucous membrane. This spur takes some little time to develope fully, and hence occasionally a little piece of fæces may slip down into the sigmoid flexure and give trouble. The sutures should not be removed for a week at least, by which time the bowel will have become firmly adherent to the skin, and the ends of the incision nearly healed. The contraction of the wound makes, as I have shown you in one of my patients, a small opening, which acts very efficiently as an anus, and really appears after a time to acquire some amount of sphincter power.

(a) Since this date I have had two other successful cases.

An inquest was held on Saturday at Guy's Hospital, touching the death of Mr. William Silvester Roche, a Surgeon in the Royal Navy. Mr. Roche fell between the wheels of a moving carriage at the London-bridge Station and was killed. The jury returned a verdict of accidental death, and appended a recommendation that railway companies should take precautions to prevent the occurrence of such accidents.

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ORIGINAL COMMUNICATIONS.

NOTES OF A CASE OF

HEMIPLEGIA FROM SOFTENING OF THE BRAIN AFTER LIGATURE OF THE EXTERNAL AND INTERNAL CAROTIDS,

WITH GENERAL REMARKS UPON THE SUBJECT.

By JAMES RUSSELL, M.D., F.R.C.P.

"THE free anastomosis of the two internal carotids with each other, and with the subclavians through the vertebrals within the cranium, sufficiently evinces that the circulation of the brain after the obliteration of either carotid, by ligature or otherwise, may be easily maintained; and experience fully confirms this inference from anatomy. That a disturbance of the cerebral circulation does occur occasionally after the operation of tying the carotid is fully proved; but it would appear that it is an occurrence much more rare than might, *à priori*, have been expected." Thus wrote Dr. Todd in 1836 ("Cyc. of Anatomy and Physiology"), and it may be interesting to record some of the variations of opinion upon this subject held by other eminent men at different periods.

According to Dr. Wood, of New York (quoted in the *American Jour. of Med. Sciences*, January, 1838), the first operation of tying the common carotid of which the date is capable of being fixed with exactness—though the operation had certainly been performed anteriorly—was on board H.M.S. *Tonnant*, October 9, 1803, by Dr. Coley. Eighteen days after, the same operation was performed by Dr. Cogswell, of Hartford, Connecticut, during the removal of a tumour from the neck. Sir A. Cooper's well-known first and unsuccessful case of ligature of the vessel for aneurism was on November 1, 1805. Mr. Abernethy's oft-quoted operation for a wound in the neck (reported in his "Surgical Observations," 1811, vol. ii., p. 115) is without date. It is stated by Burns ("Anatomy of the Head and Neck"), that the result of Mr. Abernethy's operation, "when surgeons were thus divided between hope and fear," was held to be against the operation, and that in consequence Mr. John Bell watched a case of carotid aneurism "to its ultimate dreadful issue," without daring to interfere (p. 192). Sir A. Cooper especially states that before proceeding to his second operation (June 22, 1808), which proved successful, he entertained no fear of the brain sustaining permanent injury, having the evidence of Dr. Baillie to prove that one carotid had been entirely obstructed and the diameter of the other considerably lessened, in the same person, without any apparent ill effects.

Mr. Travers, in the year 1809 (*Med.-Chir. Trans.*, vol. ii., p. 7), expresses a similar opinion, relying upon the anastomosis which is provided in the circle of Willis; and in 1818 Mr. Vincent (*Med.-Chir. Trans.*, vol. x., p. 212) asserts that the carotid had of late been so often taken up that the operation in cases of aneurism was no longer rare. In the same year we find Mr. Wardrop (*ib.*, vol. ix., p. 208) tying the carotid in an infant six weeks old for a large subcutaneous nævus of the face; and again in 1825 (*Lancet*, 1827, p. 396), for a carotid aneurism, applying the ligature on the cerebral side of the aneurism (being the second time of his operating thus), and thereby giving early effect to the confidence in the establishment of a collateral circulation, which he afterwards illustrated by the case of the external carotid, in some remarks upon arteriotomy inserted in the *Lancet*, 1834, vol. i., p. 238.

Mr. Hodgson ("Diseases of Arteries and Veins," 1815) speaks with perfect confidence as to the security of ligaturing the carotid artery, so far as the cerebral circulation was concerned—basing his assurance, however, mainly on cases by Haller, Petit, Baillie, and Pelletan—in which occlusion of the artery had been effected by a *gradual* pathological process, but referring also to Sir A. Cooper's cases. He regards the operation as constituting one of the greatest improvements in modern surgery (p. 319). Similarly, Mr. Burns, in 1824, thinks the cure of carotid aneurism by ligature calculated to impress us with the great and decided superiority of modern over ancient surgery (p. 191).

In the second volume of the *Lancet* for 1829, however, is an article by Mr. Tuson, in which the writer strongly condemns the operation of tying the carotid artery, and expresses his belief, founded on the importance of the artery operated upon, that the operation in question had never been performed with the immunity which has been ascribed to it. Mr. Crosse, in his Retrospective Address at Manchester in 1830 (*Report of the Brit. Med. Assoc.*), directs his observations against ligature of *both* carotids, referring especially, in illustration, to some observations by Professor Mott.

Mr. Cooper, in the edition of his Dictionary of 1838, affirms it to be fully proved that the artery in question may be tied without injury to the functions of the brain.

Mr. Teale, in the Surgical Address at Sheffield in 1845, after referring to two cases of death with hemiplegia after deligation of the carotid, observes that, "considering the free anastomosis of the cerebral arteries, it is difficult to imagine how the obstruction of one of the carotids could have exerted such a partial influence upon the brain"; and he expresses a strong conviction that the unfortunate result of the operations he had just quoted was due to obstruction by fibrinous coagula of the internal jugular vein and its tributaries within the cranium.

Still more absolute is the assertion of Mr. James Miller, of Edinburgh (*London and Edinburgh Monthly Journal*, 1842; I quote from "Braithwaite's Retrospect"), that even both carotids may be tied at once without danger to the brain, and with a prospect of a favourable result. His assertion is based chiefly on the authority of the French Academy. He suspects that injury to nerves or veins, or casualties after the operation, were to be blamed for such nervous affections as had occurred; or else that cerebral disease had been induced or aggravated by independent accident.

It was to test the accuracy of such absolute statements that Dr. Norman Chevers instituted inquiries, the result of which he reported in the *London Medical Gazette* for the year 1845, p. 1140. Dr. Chevers considers the effect of ligature first of both carotids, and afterwards of one alone. The tying of both vessels, even with a considerable interval between the two operations, he regards as being attended with extreme danger, though he quotes four cases in which the double operation had been performed successfully, one of them being on a child four years and a half old. The shortest interval between the deligation in the successful operations was twelve days; the like interval was observed by Professor Mott as the shortest in his operations. Dr. Ehrmann (*vide infra*, p. 21), however, quotes a case in which the two arteries were tied, on account of hæmorrhage from a wound, with an interval of only four days and a half; not a single symptom indicative of cerebral disorder ensued. Two cases are added by Dr. Chevers, in which the ligature was applied to the two arteries within twenty-four hours; both were fatal. A like case of nearly simultaneous ligature is mentioned by Mr. Crosse (*loc. cit.*); and a second in which, after one carotid had been tied, hæmorrhage continuing, pressure on the opposite vessel was twice tried, but abandoned on account of its threatening to extinguish the life of the patient. A very different view from that held by Dr. Chevers as to the question of ligaturing both carotids is taken by Dr. Pilz in a statistical record, to which I shall speedily return. One case is given of simultaneous ligature of the two arteries; "the operation resulted in coma." But he adds a notice of twenty-nine other cases in which an interval was obviously allowed to intervene, though there is no statement to that effect; "in only a few were the operations followed by critical symptoms." He explains this "singular fact" by suggesting that after the second ligature the collateral circulation is rapidly established in consequence of the vertebral and other large branches from the subclavian having previously found fresh paths marked out for them. Dr. Ehrmann (*vide infra*) also notices the immunity from cerebral symptoms presented by cases of ligature of both carotids, provided the two operations are separated by a sufficient interval. Only thrice in fourteen cases, he adds, did cerebral symptoms appear after the second ligature, and in all three cases these symptoms also accompanied the first operation. A like proclivity of the brain to disturbance by ligature of the artery was apparent in one of Dr. Chever's cases (p. 1145); the patient recovered. Dr. Ehrmann's explanation is in substance the same as that offered by Dr. Pilz.(a) I may just add

(a) Dr. Ehrmann gives a brief abstract of fourteen cases of ligature of both carotids. In one case the deligation (by Professor Mott) was nearly simultaneous, and the patient died in a few hours. The remaining fourteen patients recovered with only one exception, and in this the patient was probably himself responsible for the fatal issue. The interval between the operations was as short as four days and a half in one case; in six others it varied from twenty-one to forty-one days; and in the remainder, from four months and a half to five years—and even twenty-eight years. In

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that MM. Prévost and Cotard ("Sur le Ramollissement Cérébral," 1866), from purely theoretical considerations, express their trust in the ability of the circle of Willis to provide against mischief from ligature of one, or even of both carotids (p. 22, note).

It would seem that obliteration of both internal carotids at different periods, even within the cranium, is not necessarily followed by death, notwithstanding the greater difficulty of renewing the circulation under such circumstances, because the obliterating medium is very likely to extend into one or more of the vessels by which the compensating current is conducted. In the *Pathological Transactions* (vol. x., p. 50) is a case in which this double obliteration had occurred; the first occasion was probably indicated by the occurrence of temporary paralysis with partial blindness, the second—six months afterwards—by gradual hemiplegia. Death occurred suddenly in three weeks, probably from obturation of the already narrowed basilar. In another case (vol. vii., p. 111) the patient recovered from obliteration of one carotid, but died eight days after obstruction had taken place in the opposite vessel. Fatal cases of pathological obstruction of a single carotid within the cranium may be found in the same *Transactions*, vol. x., pp. 21 and 54, vol. xiv., p. 3, vol. xix., p. 1, vol. xxii., p. 119; *Medical Times and Gazette*, vol. ii. 1860, p. 211; MM. Prévost and Cotard, p. 56.

The larger part, however, of Dr. Chevers' paper is occupied by a brief narrative of fourteen cases in which deligation of a single carotid artery was followed by considerable interference with the circulation through the brain; and in conclusion, the author, while fully admitting the propriety of tying the carotid artery in the majority of cases in which the operation is now had recourse to, would discountenance its performance unless life were threatened, and then unless other treatment were first proved inadmissible.

From this period there has been general agreement as to the danger attending the operation now in question—an agreement which received its latest expression in Mr. Holmes's lectures (*Medical Times and Gazette*, vol. ii. 1873, p. 19). By certain writers in America, indeed, it is recommended to prefer deligation of the external carotid wherever possible, notwithstanding the greater difficulty of the operation. Thus Mr. Keene (*American Journal of Medical Science*, July, 1864, p. 27) would even tie both external carotids, if thereby the same end could be answered; and another writer in the same journal (1858, p. 226) expresses the same opinion. Dr. Ehrmann also urges preference for ligature of the external carotid over that of the primitive vessel, and quotes MM. Wutzer and Maisonneuve as being in agreement with him. Mr. Ernest Hart (*Lancet*, 1862, vol. i., p. 271), in detailing a case of ligature of the common carotid for intra-orbital aneurism, believes that his patient enjoyed greater chance of immunity from secondary mischief of a cerebral nature in consequence of the previous application of digital pressure to the carotid. Mr. Erichsen was of the same opinion; and the late Mr. Z. Laurence makes a similar remark under similar circumstances—he had applied pressure for twelve days before tying the vessel (*British Medical Journal*, 1867, vol. ii., p. 289).

The result of Mr. Holmes's examination of the whole subject of operation for carotid aneurism is in favour of compression; "that the cure by compression frequently leaves the artery unobliterated, and exposes the patient to far less risk of cerebral mischief; that the ligature of the carotid for such tumours is extremely dangerous, and ought not to be undertaken until attempts, well devised and perseveringly carried out, have failed to effect the cure by compression" (*Medical Times and Gazette*, vol. ii. 1873, p. 20).

I may here notice incidentally that among the records of cases of carotid ligature, those in which the operation has been performed for intra-orbitar aneurism hold rather a prominent place. The names of Mr. Travers (*Med.-Chir. Trans.*, vol. ii.), Mr. Dalrymple (*ibid.*, vol. vi.), Mr. Curling (vol. xxxvii.), and Mr. Nunneley (vol. xlii.) are associated with this operation, besides those already noticed. Mr. Nunneley describes three operations performed by himself, one of them being fatal. Mr. Hart gives a list of twenty cases of intra-orbitar aneurism treated by ligature of the common carotid, of which three ended fatally; and Dr. T. G. Morton (*American Journal of Medical Sciences*, April, 1865, p. 318) refers to the "remarkable degree of success" which has followed this method of treating intra-orbitar aneurism. Of thirty-two cases, the carotid has been tied in twenty-eight; only three cases have proved fatal.

Before proceeding to quote the statistical records which have been given respecting the results attending the operation of which I am now writing, I may just notice that it has been performed in several circumstances at a very early age, and without unfavourable results—so far, at least, as the narratives have extended. Thus Dr. Chevers quotes a case of ligature of both carotids, with an interval of three months, in a child aged four and a half years; and a ligature of one carotid by Dr. Zeiss, in a patient aged eighteen months. Mr. Wardrop operated on an infant six weeks old (*Med.-Chir. Trans.*, vol. ix., p. 206); Dr. McClellan on a child seven months old (*Lancet*, 1828, vol. i., p. 714); Dr. Bertherand, in an infant aged four months and a half, tied first the external and on the following day the common carotid (*Brit. Med. Jour.*, vol. i., 1863); and Mr. Haynes Walton tied the common carotid in a child of the same age (*Med. Times and Gaz.*, 1852, p. 31). In all these cases but the first (in which no statement upon the subject is made), the disease, for which the ligature was applied, consisted of some form of erectile tumour.

Statistical reports of the results which have attended ligature of one common carotid have been published by various writers. I quote those which I have been able to obtain, without making any attempt at collation—a proceeding which would obviously lead to inaccurate results.

1. Dr. Todd ("Cyclopædia") refers to seventy cases by Bérard; symptoms from cerebral affection appeared in only a very few; there were two deaths, one in Mr. Key's patient, in whom the opposite carotid had been previously almost occluded—a case, by the way, which adds importance to the suggestion that pre-existing abnormalities connected with the cerebral circulation may sometimes be concerned in producing cerebral accidents. In Dr. Ehrmann's statistics two like cases occur, one of them being Mr. Key's; in the other case the patient lived six days, the left vertebral alone carrying on the circulation within the brain (*Lancet*, vol. i. 1844, p. 310).

2. Mr. T. Inman, Liverpool, in 1845 (*Edin. Med. and Surg. Jour.*, vol. lxiii.), gives the total mortality from ligature of the carotid at eleven out of forty cases; of the humeral, one in seven; of the femoral, seven in forty-two. Here, however, no note is taken of cerebral injury.

3. Dr. Wood, of New York (quoted in *Amer. Jour. Med. Sciences*, January, 1858, p. 226), analyses his own cases as follows:—

	No. of operations.	Total deaths.	From cerebral affections.
For hæmorrhage	9	3	2
Malignant disease	17	2	1
Aneurism by anastomosis	10	1	0
Aneurism of branches of carotid	4	0	0
Epilepsy	2	0	0
Removal of tumour	7	0	0

Thus the fatal cases from cerebral affections, out of forty-nine cases, were in the proportion of 6 per cent.

4. Dr. Wood also quotes the statistics of Dr. Norris:

	No. of operations.	Cases of serious brain disorder.
For aneurism	38	12
Hæmorrhage	30	8
Erectile tumour	42	8

—giving a ratio of 25 per cent. of cases in which serious brain disturbance occurred. Fatal cases not stated. Total number of cases 110.

5. Dr. Ehrmann's report ("Des Effets Produits sur l'Encephale par l'Oblitération des Vaisseaux artériels," 1860, p. 55) is mainly based on Dr. Norris's statistics, with certain corrections which he thinks they require, and is especially valuable as supplying evidence as to the reliable character of every case,—a precaution of the greater importance when it is noted that one writer supplies a report founded on the statistics of Ehrmann, Norris, and Chevers, the first report in

the fatal case the symptoms pointed to the pons as the probable seat of the destructive process. The process itself was surmised to consist either in extravasation of blood, or in damage to nerve tissue from excessive vascular action, consequent on the effort requisite to re-establish the circulation. I may add that the same author has collected fifteen instances of ligature applied to the innominate or to the carotid and subclavian at their origin. All the patients died, though in some of the cases only after so long an interval as eighteen, twenty-one, twenty-six, and sixty-seven days respectively. He notices with surprise the singular absence, from every case, of any evidence of cerebral disorder. The larger field for the rapid establishment of anastomosis, which would fill again the external [illegible] part of the common carotid, may explain this remarkable [illegible] p. 21-30).

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reality embracing the last two. The report is as follows:—Of 187 cases of ligature of one carotid, cerebral symptoms occurred in 42 (a ratio of 22·4 per cent.); 30 of these were fatal, giving a mortality from this cause of 16 per cent. In two of the fatal cases pathological closure of the opposite carotid and of one vertebral was discovered after death. It is important, with reference to a subject to be presently referred to, to note that in at least 30 of the above-mentioned 42 cases the mischief existed in the brain itself, since hemiplegia was present in all of them.

6. In Schmidt's *Jahrbücher*, No. 7, p. 1868, is an analysis of 600 cases of ligature of the common carotid by Dr. Pilz. It is copied into "Rankin's Abstract," to which book I am indebted for it. Cerebral symptoms were observed in 165 cases out of 520, or in 31 per cent.; death occurred in 91, or in the ratio of 17 per cent. of the whole. I notice specially that hemiplegia is stated to have occurred in 50 cases, out of which 38 were fatal, showing that in these cases at least the nervous symptoms originated in changes in the brain itself.

7. In the "Nouveau Dictionnaire de Médecine et de Chirurgie," 1867 ("Carotides"), M. Richet has an able article on the subject on which I am now writing. The writer relies upon the statistics of M. Lefort, according to which, of 241 cases, 73 instances occurred of nervous accidents—in the proportion of 30 per cent.; 54 were fatal—at the rate of 22 per cent. of the whole number. M. Richet lays stress upon a highly important distinction to be drawn between the two classes of symptoms which relate to the nervous system—a distinction recognised by others in the description of particular cases, but not sufficiently attended to in statistical records. In a certain proportion of the cases the symptoms depend not at all on injury to the brain, but on derangement or injury inflicted on the nerves which surround the carotid artery in the region of the wound (p. 414). M. Richet concludes his remarks in these words:—"I do not hesitate to refer, if not all, at least the largest proportion of the accidents which occur in connexion with the mouth, the pharynx, the œsophagus, the stomach, the respiratory passages, and even the heart, to lesion—direct or indirect—of the nervous trunks or branches which accompany the carotid or lie near to it." The probability of the symptoms of nervous disorder being attributable to injury of the nerves or veins in the neck has been discussed by more than one author, but usually with reference to the entire class of symptoms,—not to any distinction between them; hence the conclusion announced on one side or the other has been too absolute. Dr. Chevers, however, recognises the distinction in asserting (*loc. cit.*, p. 1150) that the larger proportion of deaths after ligature of the carotid occur from affections of the respiratory organs arising either from compression of the trachea and nerves of the neck, from irritation of the pneumo-gastric nerves, or from cerebral disease. Dr. Ehrmann also does not overlook the same distinction, especially in his remarks upon Dr. Norris's statistics.

From a review of the foregoing statistics it will appear that the percentage of cases in which nervous disorder ensues upon ligature of the carotid varies between 22 and 37 according to the reporter; the latter percentage belonging to the largest collection of cases. It is of course obvious that the numbers employed in these reports are entirely insufficient to free them from the liability to error necessarily incident to numerical calculations founded upon too narrow a basis; nor is it probable that we shall ever possess materials sufficiently copious to carry us beyond an approximate estimate of the danger incurred by the operation in question.

(To be continued.)

CATELECTROTONUS OF THE OVARIES IN THE TREATMENT OF AMENORRHŒA.

By JULIUS ALTHAUS, M.D., M.R.C.P.,
Physician to the Hospital for Diseases of the Nervous System.

AMENORRHŒA is a condition which may—according to the causes by which it is produced, and the circumstances in which the patient is placed—have a very slight or a very considerable importance. We know that it is in many cases simply a symptom of insufficient sanguification, as when it occurs in chlorosis, phthisis, or after severe hæmorrhages or long-continued discharges which have exhausted the system. Under such circumstances, common sense, and also the highest gynæcological authorities, teach us that any local stimulation of the sexual organs, in order to produce a menstrual flow, would be improper; and that the general condition, of which amenorrhœa is merely an expression, must be rectified in the first instance. Very frequently the ovarian function is re-established simultaneously with the restoration of the general health. In other instances, however, the catamenia are suddenly stopped in consequence of a chill, fright, anxiety, and depressing emotions; and the function may then remain in abeyance long after the cause by which it had been arrested has ceased. We can then no longer be sanguine that we shall be able to restore the menstrual flow by acting on the system generally; and local stimulation of the sexual organs is generally found requisite.

If amenorrhœa occurs in spinsters who are no longer likely to marry, or in married women who have already borne a number of children, the condition is not one of very great importance; but where we meet with it in married and childless women the aspect of the case is considerably altered. As it may be assumed that, when the catamenia are arrested, ovulation has likewise ceased, the woman with amenorrhœa is, as it were, prematurely unsexed; and the re-establishment of the menstrual flow then becomes a vital object for the would-be mother. In cases of this kind, where the general health is as a rule excellent, the usual medicinal and surgical treatment of amenorrhœa often fails to rouse the dormant function of the sexual organs; and the various forms of electricity then step in as the right thing in the right place. The most effective mode of applying electricity I believe to be the induction of catelectrotonus of the ovaries; and the following may be considered a typical case:—

An American lady, aged 37, had her first confinement in March, 1871. The child was full-grown, but stillborn. The fœtal movements had suddenly ceased about a week previous to delivery, without any accident having occurred to the mother. The body of the child was found to be decomposed when born, and forceps had to be used. The mother was very ill for a considerable time afterwards, and she never saw any further trace of the menstrual discharge, although previous to her pregnancy she had always been perfectly regular. She underwent much treatment, and ultimately consulted Dr. Fordyce Barker, of New York, who pronounced the case to be one of "atrophy of the ovaries," and said that nothing could be done to restore the function of those organs. In May last the patient came to England, and being very anxious to have children, she consulted Mr. Spencer Wells, who discovered a slight degree of retroflexion of the uterus, which he replaced by the sound, and kept up by a pessary. He believed the amenorrhœa to be owing to a torpid condition of the ovaries, and sent the patient to me with the request to use electricity for rousing their function.

The general health of the patient was at that time quite satisfactory, and therefore no medicine was given. There had never been any vicarious menstruation or molimina. I induced catelectrotonus of the ovaries by placing the negative electrode of the constant battery alternately to the right and left ovarian region, putting the anode alternately to the lumbar spine and to the os uteri by means of an insulated sound. A current of from fifty to sixty cells of Daniell's battery was used, and the action of it kept up for fifteen minutes at a time. After a few such applications, the patient said that she felt the same sensations which she had always felt just before the period used to come on—viz., persistent uterine pain and frontal headache, chiefly in the right side of the head. A slight mucous discharge from the womb began at the same time. The galvanic current was now used on twenty-two different occasions, and the general sensations of the patient at the end of that period were such as to fully convince her that the catamenia were impending.

This was towards the end of June last. External reasons now obliged her to leave London, and I did not see her again until November 7, when she informed me that she had been disappointed in her expectation. The sensations which she thought premonitory of the occurrence of menstruation had disappeared within the first few days after discontinuing the galvanic treatment; the discharge from the womb had likewise ceased, and no sign of the period manifested itself. She was anxious to give the treatment a further trial, and it was therefore now resumed. Within the first few days the symptoms, which she had left in summer, returned—viz.,

uterine pain and frontal headache. Shortly afterwards a thick mucous discharge from the womb was established, which was on one occasion sanguinolent, and so acrid that it made the inside of the thighs sore; for the relief of which cold cream was not sufficient, but free applications of the benzoated ointment of oxide of zinc were found requisite. The current was now used thirty times. The sensations previously described ceased, while the discharge persisted.

The treatment was now interrupted for ten days, and resumed on December 22. After three more applications, the period came on Christmas-day, to the intense gratification of the patient. The flow was, for the first twelve hours, quite as abundant as it had ever been before. It then diminished, and ceased altogether four hours afterwards; but was succeeded by a dark mucous discharge which lasted two days longer. As it appeared to me that this first response of nature had been very imperfect, I advised another short course of treatment just previous to the time when the next period would be expected. The patient accordingly came to me again on January 13, and had eight more applications of the current. Menstruation returned on January 22; it was of a particularly good character, and went on abundantly for four days. As, therefore, not only a satisfactory quality, but also decided periodicity of the ovarian function appeared now to have become established, I discharged the patient from further attendance, and she left England for Italy shortly afterwards.

The result of the treatment in this case was all the more satisfactory as the amenorrhœa had already lasted nearly three years, the patient was no longer very young, and there seemed to be no prospect of other means proving effectual. Indeed, so able and experienced an observer as Dr. Fordyce Barker had pronounced the case to be incurable. Its ultimately successful issue, however, shows that the induction of catelectrotonus of the ovaries is a powerful remedy, by means of which, if perseveringly employed, the function of the ovaries may be restored even after having been in abeyance for years.

REPORTS OF HOSPITAL PRACTICE IN MEDICINE AND SURGERY.

ST. MARY'S HOSPITAL.

CASE OF PYÆMIA.

(Under the care of Dr. HANDFIELD JONES.)

The following history may be thought of some interest from its bearing on a specially weak point in therapeutics—viz., the treatment of pyæmia and septicæmia:—

Typhoid Fever—Hæmorrhage from Bowels, which were found Ulcerated—Rigors—Great Improvement from Free Exposure to Air—Decline after Return to Ordinary Ward—Persistent Vomiting—Death by Asthenia.

S. Sh., aged 21, nurse at St. Mary's Hospital, was warded August 13, 1871, ill with typhoid fever. Hæmorrhage from the bowels occurred first on August 19, again on the 26th, and again on September 2. On September 18 her temperature was 99°, and continued so some days; she was, however, very feeble, was unable to retain her evacuations, and had a rather large bedsore on the sacrum. Her first rigor occurred on September 25; during the rigor her temperature was 105·4°, soon after it had ceased it was 103°, and some hours later 100·8°. She did not feel ill particularly. On the 27th her temperature was 104°; on the 28th it was 101·4°. On the 29th she had rigors again at 8.30 a.m., and her temperature was 105·4°, but at 11.20 a.m. it had fallen to 99·6°. The rigors lasted thirty minutes, but her face was very much flushed for two to three hours after. She passed a good night, and on the 30th was better. On September 25 I had her removed to a separate ward, and gave orders that the two large windows and the door should be kept open day and night. The small doses of quinine which she had been taking were continued. October 5: She has been decidedly better since her removal to the separate ward. Has had rigors three or four times, and occasionally some sickness. Takes nourishment well, and stimulants—port wine eight ounces, and brandy four ounces. Temperature on October 4, 100·4°; on the 5th, 100°. The bedsore is doing well. 12th: No rigors; pulse 93, weak; temperature 99·2°; seems to be doing well. 19th: Is very indolent and dirty. Eats a large chop daily; bedsores healing nicely. She was now brought down to one of the ordinary wards for the convenience of nursing. After she had been in the ward two days her temperature was 100·4°, pulse 110; she was taking strychnia and nitric acid. November 1: The note is—She does not get on; the smaller sores are not filling up; her legs look very thin, and the skin is covered with desquamating epidermis. The left foot is notably swollen with œdema; food is taken fairly. Taking citrate of iron and quinine, with tincture of nux vomica. 15th: Pulse as small and weak as it can possibly be; has much sickness; rejects almost everything. Various drugs were given to check the vomiting, but without effect until she had champagne, which succeeded so far that she was able to eat a beef-sausage and take some ale on December 4; temperature 100·76°. The vomiting, however, recurred a few days later, and she died on December 13.

Autopsy.—Left lung weighed thirteen ounces, its lower lobe completely hepatised, the pleura coated with a thin film of lymph. Right lung healthy; weighed nine ounces. No tubercles in either. Heart healthy, except some nodules at the margin of the mitral flaps; weighed six ounces. Spleen healthy; small. Liver very large; weighed six pounds; of yellow colour; greased the knife; was in an extreme state of fatty degeneration, as shown by microscope. Bile in gall-bladder of orange colour, of about natural consistence. Both kidneys of a pale red, with whitish spots here and there; the left on being cut into showed a well defined conoidal patch, the base to the surface, much like a fibrinous deposit. Right kidney weighed five ounces, left six ounces. In the cone-shaped patch the tubes appeared rather far apart, and their epithelium wasted and fatty. In the small intestine there were numerous partially healed ulcers, the largest near the end of the ileum; one of them had a sloughy surface. In the large intestine there were very numerous ulcers more or less completely healed, most of them bordered by a ring of black pigment. These were most numerous in the cæcum, and ceased about the sigmoid flexure. There were none in the rectum. The mesenteric glands were small and rather hard, apparently shrunken and wasted. On the skin at the great trochanter and sacrum there were large open ulcers. The feet were œdematous. The surface was markedly jaundiced.

The foregoing notes hardly convey fully the improvement that was effected by the removal to the separate ward with hyperventilation. I have very little doubt that had she been kept under the same *régime* she would have recovered. Still more striking good effects might have been attained had she been conveyed in an invalid carriage to a breezy heath some miles out of London. I do not know to what extent such measures are resorted to, but I strongly suspect not so often as they ought to be. Fresh air is far cheaper than brandy and tonics, and far more efficacious in cases of this description. The patch found in the left kidney affords some notable evidence that a pyæmic process had actually commenced. The source of the putrid infection was doubtless either the bedsores or the intestinal ulcers.

BELFORD HOSPITAL, FORT WILLIAM, N.B.

CASE OF CHRONIC BRIGHT'S DISEASE.

(Under the care of Dr. JAMES W. ALLAN.)

Mrs. McL., aged 53, widow—a person of intemperate habits,—was admitted to Belford Hospital on August 13, 1873. She stated that her trouble commenced about eight years ago. She had a dropsical swelling of the belly at that time, but she got medicine from the doctor which put it away, and she made a good recovery. About two years ago she had a similar attack, and again recovered. This present illness began about a month ago. While "tramping clothes"—*i.e.*, treading in a tub filled with water and dirty linen—she took a shivering. Felt very sick, but could not vomit; had pains in the small of her back. On this, as on previous occasions of illness, the urine became scanty and high-coloured, and she required to rise frequently to void it. Tormented with great thirst and harassing cough. Patient is a flabby-looking woman. On examination of her person, there was found to be a considerable degree of ascites and anasarca. Pulse 72; tongue pretty clean; bowels cleared out by castor oil. Urine found to be opaque and of a dirty straw colour, and having a deposit. Strong acid reaction,

decidedly albuminous (nitric acid and heat). Examination of sediment under microscope revealed epithelium from bladder, lithates (crystalline and amorphous), and one or two fibrinous tube-casts, with entangled cells.

On August 16 the following treatment was prescribed:—Sinapisms to loins; occasional compound jalap powder; mixture containing quiniæ sulph. and acid. nit. hydrochlor. dil., and good diet, including four ounces of sherry.

September 7.—Patient is very much improved. Castor oil employed to keep the bowels open. She has suffered repeatedly and severely from cramps; these have been relieved after the application of flannels powdered with flowers of sulphur.

25th.—Complains of severe pains and "sleepy" feeling in right thigh. Pain in back removed by dry cupping. Saline aperients and mild diuretics were also employed in the treatment of this case; and patient was dismissed on September 28 in a very satisfactory state.

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Medical Times and Gazette.

SATURDAY, MARCH 14, 1874.

HEALTH AND MORALS IN THE POTTERIES.

Although the Staffordshire Potteries do not appear in the list of large towns from which weekly returns of the mortality and prevailing diseases are published by the Registrar-General, yet they contain—taken as a group of towns—a population of some 150,000, and consequently must be fruitful in sanitary facts, even if lacking in circumstances to give them a civic importance. Why the Potteries occupy so inconspicuous a figure among the towns of the kingdom, in spite of their magnitude, their growing population, and their most important manufactures, must be attributed to their want of cohesion and of conjoint operation. They consist of several towns, three of which are incorporated as municipal boroughs, and each of them possessed with a spirit of exclusiveness and of rivalry towards its neighbours. One of the boroughs is Longton, and a report of its sanitary state during the year 1873 has just been issued by its medical officer, Dr. Weaver. Its population, which amounts to 20,000, is occupied almost exclusively in the manufacture of earthenware and china, and in coal and ironstone mining. The two sexes are almost identical in number; and the proportion of inhabitants to dwellings is rather over five to each house. Longton has the local reputation of being the worst built and dirtiest of the Pottery towns, but in this character the borough may be maligned. At all events, there is small scope for one Pottery town to reflect on its neighbour in respect of cleanliness and construction, for they all appear to a visitor very dingy, dirty and meanly built places. And the aspect of the towns gains nothing in effect by the appearance of the inhabitants, which is in too distinct harmony with it. The death-rate of Longton was 26·2 per thousand during the year reported on; and this rate, it seems, compares very favourably with that of preceding years, although it must be admitted to be still far too high and to be indicative of conditions of existence unfavourable to life. These conditions exhibit themselves as especially inimical to children, who perish in the first year of existence at the rate of 21 per cent., compared with 16 per cent. in England at large. "In the past year 286, or more than one-half of the whole [of the deaths], have occurred in young children under five years of age, and 188 in infants under one year of age." On looking to the causes of death, 8·2 deaths are seen to occur in every thousand of the population from chest diseases, comprising bronchitis and phthisis. This excessive mortality from chest diseases has been a feature that has often challenged attention and been officially inquired into; and it owns as its principal cause the inhalation of dust in the processes of the staple manufacture. Convulsions figure as a chief cause of the death of children, and may be interpreted to mean that the little unfortunates are badly fed, badly nursed, and badly clothed. The death-rate from zymotic maladies Dr. Weaver congratulates his readers on being reduced considerably upon previous years. With regard to diarrhœa and typhoid fever, which he classes together under this heading, he speaks bravely and hopefully of seeing the mortality therefrom progressively diminished by perseverance in preventive measures. However, 107 deaths of the 525 are put down to zymotic diseases, and it may therefore be considered that there is ample margin for a decrease under active sanitary supervision. To make the record of decrease more satisfactory, it would be necessary to take the history of several past years; for the returns of a single year are next to worthless for showing either the good or ill-effects of any presumably sanitary measures. It is gratifying to learn that the town is at length to be drained, and the sewage to be disposed of by irrigation over land at a distance.

If the death-rate be high in Longton, and children rapidly transferred to another world, there is this compensation—that the inhabitants are fruitful and multiply; so that, during 1873, 336 more beings came into the world than went out of it. The total number of births was 861; these were equally divided between males and females. However, the fecundity is not monopolised by married females, but materially assisted by those not bound by the marriage bonds; so that 101, or just 12 per cent., of the babies born were known to be illegitimate. This, it is justly remarked, is a foul blot on the fair fame of Longton. Still, to a considerable proportion of the inhabitants the stigma would seem little regarded, "for so common has it become amongst some classes for a man and woman to live together unblessed by the sanctity of marriage, that the neighbours look upon it as an everyday occurrence, and seem to tolerate it without comment or remark." The general impression conveyed by this interesting report is that there is much to be done, both for the health and morals of Longton, and that the sanitary medical officer of the borough should be pretty fully occupied with his duties and be proportionately remunerated.

THE AMERICAN "WHISKY WAR."

The women's "whisky war" in America presents several features of psychological and social interest. The magnitude

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which it is assuming, and the magnetic power with which it attracts recruits, promise to stamp it as not the least interesting of the many modern instances of epidemic enthusiasm. American manifestations of co-operative excitement generally present more practical features than corresponding outbreaks in old-world society. A wave of British revivalism carries away at intervals the more emotional members of our community, and not unfrequently lands them high and dry in the regions of monideism and monomania; but the British public appear to be no longer amenable to the action of an infectious excitement as an element in any social or political movement. In America it is otherwise. One great social question has in particular agitated the public mind. Solutions of the question have been sought in teetotalism, Good Templarism, and permissive legislation; but even the combination of moral and magisterial influence has been insufficient to suppress the American liquor traffic. Teetotalism cannot be made compulsory, and a Permissive Bill is open to evasion. Thirsty souls visit neighbouring stores "to see the baby," and reappear visibly refreshed, and on all hands the abstinent body of social reformers have been frustrated by a display of ready-witted ingenuity worthy of a better cause.

But a new era has been established in the annals of teetotalism, and a new study offered to such as direct attention to the character of social movements. In the Southern State of Ohio an "alliance" of women was recently formed for the purpose of carrying on a "whisky war," and with the immediate aim of putting an effective veto on the sale of intoxicating liquors. The tactics of the promoters were so eminently satisfactory, and their mode of procedure so highly infectious, that they soon attracted numbers of adherents, and created an ever-increasing body of imitators. The result is, that at the present time the female agitators have completely suppressed the liquor traffic in nearly twenty towns in Southern Ohio, while the women of other States have joined in the campaign and are producing results equally satisfactory to the teetotalers.

The mode of action is peculiar. Groups of teetotal, if not temperate, women plant themselves opposite the entrance of some fated store; they speak, they sing, they pray; but above all they take notes. The miserable wretch who, suffering from all the local and constitutional symptoms of thirst, dares to enter the haunted beershop in defiance of the watchful band of

"Rash, inconsiderate, fiery voluntaries,"

has his name and number at once recorded by the Furies. These relieve each other with a cordiality and harmony which would have brought a blush to the cheek of Achilles, shamed Patroclus, silenced Thersites, and finished the siege of Troy without the intervention of the wooden cavalry of Odysseus. Nothing can resist their importunity—instant capitulation is the ordinary result of their operations; and even Mr. Van Pelt, who, with all the persistence of error, all the stolidity of a Dutchman, and some small and temporary advantage accruing from the use of a hatchet, withstood for a time his fair besiegers,—even Van Pelt finally gave way. As in many well-known instances, the efficacy of Mr. Van Pelt's conversion was proportionate to the intensity of his previous iniquity. He spilt his best rum in the cause, was photographed in the act, and still remains a living example of illuminated stolidity, representative teetotalism, and Ohio photography. But, instead of remaining a passive evidence of effectual conversion, he evinces his enthusiasm by adorning the "stump," shows his commercial capabilities by selling his own iconoclastic photograph, and supports teetotalism—after the manner of the Scotchman who recommended honesty as the best policy—having "tried both ways."

Regarded from a social point of view, this "whisky war" presents an element which promises more permanent results than can be looked for from an ebullition of enthusiasm in a combination of hyperæsthetic women. In several of the towns which have witnessed the progress of the "war" the magistrates have taken part with the women and passed enactments forbidding all commerce in intoxicating liquors. Communities in which the permissive system has been nominally existent have suddenly enforced the dormant Act, and the impression conveyed, not only by those who are present at the scene of the curious contest, but also by Americans at a distance, is that the furor will spread widely and rapidly.

It is difficult to see how the agency first employed by the women of Southern Ohio can work satisfactorily in any but small towns, and almost incomprehensible that it should ever be practicable in this country at all; but at the same time experience has taught us how difficult it is to limit the action of any public movement which is promoted by combined enthusiasm and silently approved of by many whose less explosive temperaments restrain them from public demonstrations. At the same time, it would be hazardous to say that the realisation of the hopes of the "Alliance"—the complete suppression of the liquor traffic—would be an unqualified blessing. We have no desire to enter upon a field of intemperate controversy, but we can submit the statement that there are those whose attention has been specially devoted to the subject who believe that physical and psychological conditions exist which, to some extent and in some persons, justify the moderate use of alcoholic stimulants. If it should ever come to be a matter of necessity that western peoples should substitute opium or absinthe for the various forms of malt and alcoholic stimulants, the change may be found to be of doubtful benefit. There will be plenty of time, however, to decide the question before the advent of the abstainer's Utopia.

THE NEW GOVERNMENT AND THE ARMY MEDICAL WARRANT.

The late political tempest having now somewhat calmed down, there is breathing time to look around, and speculate upon the advantages to the profession generally which the change of parties may have brought about. And first, with regard to the Army Medical Department. We do not for one instant suppose that Mr. Cardwell had it in contemplation to render the whole of the medical officers of the army discontented, when he promulgated the Warrant for their department in the March of last year; yet that such has been the result of this piece of legislation there can be no doubt. It would, we fancy, be more fair to trace the mistaken nature of the policy of the Warrant in question, to the nightmare of economy which ever sat so heavily upon the breasts of the late Cabinet. No matter how beneficial a suggestion, or how just a demand, if it involved an increase of expenditure, it was forthwith rigorously and ruthlessly suppressed. Again, the Medical Department suffered, in common with the rest of the army, from the gigantic, and in many cases useless, reforms which some military men tell us have gone far to shake the efficiency of the whole force. And if to these causes is added the differences of opinion which somehow invariably arise between the Horse Guards, the Secretary of State for War, and the Director-General of the Army Medical Department whenever the status and pay of medical officers are brought forward for discussion, it will at once be seen how small a chance Mr. Cardwell's Warrant had of benefiting the gentlemen for whom it was intended.

The opportunity for reassuring one large and important branch of the army lies ready to Mr. Gathorne Hardy's hand. He may at the present moment, if he will, avail himself of the services of the Director-General of the Medical Department—who is finishing his long and eventful career—and of the large experience of the gentleman who, it is reported, will succeed to the chair, to assist him in modifying the Medical Warrant of his predecessor, so as to restore the con-

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fidence of the officers whom it affects. The concessions already made on certain points in deference to the unanimously expressed dissatisfaction of the Service were only looked upon as a prelude to a more careful and liberal consideration of the whole scheme; and, from the complaints which frequently reach us, it would seem that the unification of the Army Medical Service is at the present time theoretical instead of practical. Thus, it appears that medical officers attached to regiments, though deprived of several of the advantages to which they would have been entitled under the old system, are actually at a disadvantage, as regards remuneration, with their brother officers doing duty on the staff. This of itself is an anomaly which the framers of the late Warrant could never have contemplated, and one which calls for prompt rectification from the rulers who have been called to the helm of public affairs. The object of the unification scheme was understood to be the placing of all medical officers on the same footing in their respective grades; but as affairs stand at present, the system is neither one thing nor the other.

We cannot help thinking that all unprejudiced persons will endorse the views on this subject which we have thus briefly stated; and we sincerely hope that Mr. Gathorne Hardy will recognise the necessity of dealing with this matter at once. It is of immense importance to the well-being of the Medical Service that its affairs should be placed on an intelligible and equitable footing, and no one can undertake this duty but a Secretary of State for War who will enter upon the task with a firm resolve to secure thorough efficiency by such a system of adjustment as will leave no reasonable grounds of complaint to the officers of the department whose interests he is called upon to legislate for. As we have before explained, the Director-General of the Army Medical Department is not to be held responsible for the shortcomings of the late Warrant. In all matters of finance he is powerless to do aught but advise or remonstrate; and if his advice is taken only in part, and his remonstrances are either overruled or not listened to, it is clearly an act of injustice to look upon him as the author of all the obnoxious clauses which have pressed so heavily upon the officers under his control.

PHYSIOLOGICAL RESEARCHES INTO THE DIGESTIVE AND ABSORBING POWERS OF THE LARGE INTESTINE.

Although numerous researches have been directed to the question, what the exact action of the large intestine is on nutritive substances placed in contact with its mucous surface, yet an exact solution of it had not till recently been offered. A remarkable malformation of the intestine, the result of disease, in a patient under their care, has lately allowed Drs. Czerny and Latschenberger, of Freiburg, to make almost analogous experiments on the large intestine to those which Dr. Beaumont formerly made on the stomach in the case of St. Martin, and they have arrived at some extremely valuable and interesting results, which are published in Virchow's *Archiv*, Band lix., Heft 2, s. 161. We shall only here give the briefest outline of the condition of the parts experimented on—sufficient to make the experimental method intelligible,—and confine our remarks chiefly to the researches themselves. A man, aged forty-nine, had had a left inguinal hernia for some years, which at length became strangulated. It was operated on, and found to be irreducible from adhesions. Inflammation and gangrene set in in the strangulated portion, and incisions were made into it, allowing of the escape of putrilage and fæcal matter. As the inflammation subsided, it was found that the hernia consisted of a loop of large intestine, which had been opened in three places, the descending portion close to the abdominal ring, the ascending half-way up, and the arch at its greatest convexity. After a time shrinking took place between the opening in the descending portion and the lower part of the gut towards the anus, so that fæces only passed out through the former, or artificial anus; and at the same time the two openings nearer the anus became reduced to one, from which a sound could be passed at first backwards, and then downwards to the anus proper. This portion of large intestine and rectum measured thirty centimetres, and was completely isolated from the rest of the gut. It could be kept perfectly clean by washing out from the inguinal opening, and emptied by the anus whenever necessary, and the state of its mucous membrane could also be observed. It was therefore employed in the experiments now to be described. The sensibility of the mucous membrane was tested by pricking it with a needle, and it was found to be quite free from sensation, and not to contract under such a stimulus, nor even when an induced galvanic current was applied to it. A constant current, however (two of Stöhrer's cells), caused lively contraction, which lasted as long as the electrodes were applied. Irritation with the finger caused a strong contraction of the intestine, and the mucous membrane became reddened, and secreted more mucus if the irritation were continued. It was several times noticed that the peristaltic contractions of the intestine above the upper artificial anus did not extend at the time of a stool to the lower isolated portion. The normal mucous membrane was of a clear red colour, but if inflamed it became bluish-red, swollen, smooth, and glassy, and felt harder to the touch, while sometimes it was thrown into folds. The mucous secretion was tolerably richly present as long as there was some inflammation still existing in its neighbourhood, and it was glassy, shiny, and could easily be collected into large drops; but later on it was not so abundant.

The pure mucus forms clear drops, which are very slightly opalescent, and contain scattered protoplasmic masses, somewhat above and below the size of a white blood-corpuscle, mostly with a well-defined nucleus, and often covered with smaller fat drops or containing minute vacuoles. If the mucous membrane be irritated, the mucus becomes cloudy from intermixture of epithelium. The mucus has an intensely alkaline reaction, and effervesces a little if acidulated. The fæcal reaction is acid. Experiments were made with the collected secretion of the lower portion of intestine, to determine whether it has any digestive action or not. The secretion was mixed with coagulated albumen, with fat, and with starch, in test-glasses stopped with cotton-wool and kept at a temperature of 35° Cent. for two or three hours. The albumen used was hard-boiled white of egg, cut into sharp-cornered bits, so that the least action on it could be easily detected. No change was observed in any of the above substances; nor had any marked alteration occurred in pieces of albumen which remained *two months and a half* in the intestine enclosed in a perforated capsule, except that the pieces were somewhat brittle, and their edges had a nibbled aspect, and under the microscope they were found to be infiltrated with little rod-shaped organisms (bacteria). The authors therefore conclude that neither the large intestine of man nor its secretion have a digestive action on albumen (coagulated or soluble) or on fat or starchy substances.

To determine the absorbing power of the large intestine accurately required attention to a number of small details. It was necessary to use quantities of the experimental substance (in the liquid form) so small as not to excite their expulsion by setting up peristalsis in the intestine, and twenty cubic centimetres of water being taken as the limit of endurance, the fluid to be experimented on was divided into four portions of fifteen cubic centimetres each, and poured in at intervals of two hours. The same glass funnel and caoutchouc tube were always used to do this, and the rectum was evacuated when necessary by means of a sound. After removal of the

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experimental fluid the intestine was thoroughly washed out with a known quantity of pure water, whose weight before and after use, minus the weight of its solid residue, gave the amount of water retained in the gut, which was added as a correction to the total weight of fluid withdrawn. The amount of solid nutritive matter absorbed was determined (roughly speaking) by subtracting the weight of its dry residue, and in the case of albumen of its alcoholic precipitate, from the weights of the same factors in the solutions previous to experiment; and the amount of fluid absorbed was similarly determined. Albumen was made into a solution by mixing with one and a half times its volume of water, stirring, and filtering after several hours' agitation. Fat was used as an emulsion of olive oil with water and a half per cent. of bicarbonate of soda. Starch was made into a thin paste so as to pour better.

The general results arrived at were, almost in the authors' words, as follows:—*Soluble* albumen is absorbed by the human large intestine unchanged as such, the intestine itself having no action on it; and the quantity absorbed is larger the longer it remains in contact with the mucous membrane. Irritation of the latter, as was shown where repeated measurings had reddened and inflamed it, stops absorption either wholly or in part. The absorption of albumen is diminished also by the presence of chloride of sodium, but the latter is itself absorbed in all conditions of the intestine. The albumen of eggs is an unsuitable form for absorption. Fat in emulsion is absorbed in quantities proportional to its concentration. Starch is also absorbed, but it is not as yet certain whether it remains chemically unchanged or is converted into sugar before absorption takes place.

It was also found that the portion of intestine used for experiment absorbed in seven hours about forty to fifty grammes of water. The largest amount of albumen which the same portion absorbed in twenty-four hours was one gramme and a half; and, as the whole large intestine is about four times as long, it follows that in twenty-four hours six grammes of a 4½ per cent. solution of albumen would be absorbed. This is a quantity quite insufficient for the nourishment of a healthy man, who requires, according to Voit and Bauer, 120 grammes per diem. Probably more would be absorbed if the concentration of the solution were increased.

The value of Czerny and Latschenberger's researches lies of course in the light they throw on the use of nutritive injections in various diseases. Judging from the above results, such injections are less valuable than is generally supposed; but we must beware of generalising too much from observations on a single individual. Clinical experience has proved that life can be maintained for a considerable time by food given solely by the bowel; and we must recollect that, just as different stomachs have different digestive powers, so the large intestine may vary in its absorptiveness in different individuals. Moreover, as Leube has remarked in his experiments with pancreatic emulsions, the digesting, or rather the absorbing power of this part of the alimentary canal increases gradually with its use.

THE WEEK.

TOPICS OF THE DAY.

We drew our readers' attention last week to a memorial which had been presented to the Metropolitan Board of Works on the subject of the erection of dwellings for the labouring classes. The memorial was referred to the Works Committee. The Board has, on the recommendation of the Committee, forwarded a reply to the memorialists to the effect that the Board had always evinced a desire to make provision for the accommodation of the labouring classes, whose dwellings have been required for street improvements, and that certain plots of ground in the intended new street from Oxford-street to Shoreditch would be reserved for such purpose, but that the Board had no power to carry out such a plan as that suggested by the memorialists. It is to be regretted that the Board does not possess the power to cover the open spaces belonging to it with suitable dwellings for the labouring poor. Healthy dwellings for this class are a public necessity. Much hardship has been inflicted on them by the ruthless manner in which they have been ejected from their homes by metropolitan improvements carried out by the Board; and it is to be doubted if the Board has paid that regard to the general interest and comfort of these poor people which their cases, in many instances, have deserved. If further powers are required to carry out more extensive plans of such good and beneficial work, the importance of it demands that the Board should seek to obtain them.

The Registrar-General, in his last week's return, shows that 1578 deaths occurred in London. There were sixty-two deaths from measles. Measles and hooping-cough are the only two prevailing epidemic diseases, and the fatal cases of each showed a decline from the numbers in the recent returns.

A meeting of the General Council of the Metropolitan Hospital Sunday Fund was held at the Mansion-house on Tuesday; Sir Sidney Waterlow, Bart., presided. The following resolution was unanimously adopted on the relative claims of hospitals and dispensaries, after a very long discussion:—"That it be an instruction to the Committee of Distribution to place dispensaries on the same footing as hospitals, taking the legitimate expenditure of these institutions and the ordinary charitable income as a basis of distribution in each case." The chairman called attention to the Hospital Saturday Fund, and remarked that it was very undesirable there should be two distributions. It was suggested that Captain Mercier should be invited to join the Council, and Mr. George Potter's name was mentioned as a representative of the working men; but it was ultimately decided to postpone the consideration of these and other names until the next meeting.

The following resolution has been forwarded by the Medical Committee of the Manchester Royal Infirmary and Dispensary to the Royal Colleges of Physicians and Surgeons in reference to the Conjoint Scheme:—

"The Medical Committee of the Manchester Royal Infirmary beg to call the attention of the Committee of Reference for an Examining Board in England to Note m, sec. 2, clause 23, in their report, which, if adopted, will interfere very seriously with the necessary control in the scheme for practical tuition suggested by the College of Surgeons, and recently instituted in the medical and surgical departments of this Hospital. The Committee are also of opinion that the regulation referring to the admission of graduates of the universities to the final examination should include evidence that the applicants have been engaged in the study of practical medicine and surgery.

(Signed) "M. A. Eason Wilkinson, M.D.,
"Chairman."

There are still some authors who labour under the illusion that editors are not proof against the influence of a cheque when sent with books for review. The editor of the *Engineer* complains that he has frequently to return to the senders cheques and bank-notes which are sent to him to secure his good offices. Recently an author sent him a copy of his work accompanied by a cheque—for what amount he does not tell us,—requesting a notice in the *Engineer*. The editor at once sent the cheque to the Treasurer of King's College Hospital, in aid of the funds of that institution, and announced his intention of publishing the names and addresses of every person who may in future think proper to make offers of a similar character.

A correspondent of the *New York Herald* gives a report of the post-mortem examination of the Siamese Twins, in which he states that the body of Chang, who died first, was of a

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dark-bluish tint, whilst that of Eng was comparatively white. The connecting band was found to contain two pouches resting one against the other, and lined with reflections of peritoneum from the abdomen of each, and forming distinct sacs. The livers of each lay close to the band, adjacent the one to the other, and it is conjectured that in fœtal life they had a common liver. The navel was common to both. At the time the report was despatched the other viscera had not been examined. Communicating arteries were found traversing the cartilaginous connecting band.

The new receiving-house of the Royal Humane Society at Waterloo-bridge has already proved highly useful. We learn from the annual report of the institution that during the year 1873 twenty-five cases were admitted, of which fifteen were accidents and ten of a suicidal character; six of the twenty-five died, and nineteen recovered. During the same period twenty-two other cases came under the observation of the officers of the Society, but were not admitted into the receiving-house. Two of these were suicides from Blackfriars-bridge, one from Waterloo-bridge, and two from the Embankment; three were cases of accidental drowning in boys, six were persons prevented from committing suicide, and the remainder were bodies found dead. The Society is to be congratulated on the amount of good which has been already done in their new quarters.

LETTER FROM THE GOLD COAST.

We have been kindly favoured with a copy of the following interesting letter from the seat of war, containing information of the latest date:—

"H.M.S. *Victor Emmanuel*, Cape Coast Castle, Feb. 5.

"Our work in the *Victor Emmanuel* for the month of January is thus:—

"*Men.*—Remaining in hospital from December, 1; admitted during January, 205—total 206; of whom there were discharged during January—invalided to England, 62; duty, 28; convalescent, 14—total 104; leaving in hospital 102. There were no deaths.

"*Officers.*—Admitted, 28; discharged, 19 (duty, 1; invalided, 18); remaining under treatment, 8. One officer died.

"So far we have been lucky in having no deaths among the men. The cases are almost all remittent fever without much complication. The fever is very sharp while it lasts, but yields readily enough to quinine. As all are sent back immediately on falling out, they get filled with quinine and port wine before the fever gets much hold of them. The voyage home may set the men up, but here few get beyond the stage of being able to creep about and look after themselves. The debility and prostration resulting from a few days' fever is surprising. We notice the earliest signs of scurvy amongst some of the men; and I cannot help thinking the soldier's diet on board ship is not sufficiently varied. Soldiers feed badly on board ship at first. They don't consume half their rations, and consequently must lose condition. Tea (without milk) and ship-biscuits for breakfast, ditto for tea, and a not very tempting dinner is not the fare to keep a man in fighting condition. The subject of soldiers' rations on board ship (and sailors' too) will have to be looked after and improved. On shore the men seem to have been fed well. We have every comfort for the poor fellows here, and dispense it with a liberal hand. Quinine, port wine, and claret, with good soup, bread, and vegetables, are our unfailing remedies.

"The death amongst officers was that of Captain Blake, R.N. Another has occurred this month from dysentery—viz., Assistant-Commissary Marsh, who died the afternoon after coming on board. To-day we send twenty-five invalids (men) and seven officers to St. Vincent by the *Sprite*, and eighty invalids (men) and six or eight officers in the *Elizabeth Martin*, which may go straight to Gibraltar with despatches. This will leave us pretty clear for the *wounded*. There has been hard bush-fighting since the 29th on this side of Coomassie, and to night we expect to hear they have occupied Coomassie, but with great loss. The last news we had was that the 42nd had 105 men and eight or nine officers killed or wounded. You will, however, by this mail have better details than I can give you. The Ashantees are in force before Coomassie, and mean to fight to the last. Counting all, I think, we have had about 230 killed and wounded since the 29th. The 42nd were in advance, and suffered most. They were too impetuous, and went ahead faster than their supports could follow. The Naval Brigade were the next sufferers. Major Macpherson was wounded badly in the leg, but led his men all day; Major Baird was severely wounded early; Captain Buckle, R.E., was shot through the heart; Colonel Wood wounded early. The fight was before Amoaful. Bush very dense; for two hours they were firing into each other at ten yards distance. The Ashantees are evidently no fools. They fight in broad-arrow form, with base towards the enemy. "J. F. B."

THE TERMINATION OF THE ASHANTEE WAR.

The dispatches from Sir Garnet Wolseley, which were so anxiously looked for when we last wrote, have now come to hand, and we may fairly congratulate ourselves upon a successful termination to one of the most unpopular of the various little wars which this country was ever called upon to engage in. Nevertheless, when the history of the campaign comes to be written, we think it will be found that what has now been done on the West Coast of Africa has not been done in vain. The medical service alone has passed through no ordinary test, and may emphatically be pronounced not to have been found wanting. Like the Abyssinian operations, the Ashantee war culminated in the capture of the King's great stronghold; but, unlike Abyssinia, the mortal foe was not the worst to be encountered, and as a proof of the stringency with which time pressed upon Sir Garnet Wolseley, it is only necessary to remember that the forerunners of the "bad season" had actually shown themselves before our troops left Coomassie. Thus the description of the first few days' return march gives a dreadful picture of what the road, by which our advance was made, had turned into, even with the comparatively small amount of rain which had then fallen. Swamps, before of little magnitude, were now found to be knee-deep for several hundred yards, and the bridge which Major Home's engineers had thrown across the river Ordah had to be crossed waist-deep in water, the increasing flood subsequently sweeping it totally away. The Commander-in-Chief of the small force, therefore, having carried out the object of the expedition by the destruction of the town of Coomassie—very wisely, as we think it will subsequently be found,—gave the order to return; and, as we have since learnt, it is even hoped that the whole of the European troops will have embarked at Cape Coast Castle for this country by the 23rd of last month. Should these arrangements really have been carried out, the *Candia*, which recently sailed with a detachment of the Army Hospital Corps on board, will meet the homeward-bound transports about half-way.

Although perfectly exposed, through the peculiarities of bush-fighting, we are happy to be able to record that the medical staff engaged throughout the later operations have escaped without any casualties. Sir Garnet's official despatch, in speaking of them, says:—

"The medical arrangements for the war were made by Deputy Surgeon-General Home, V.C., C.B. I have in a previous dispatch recorded my high appreciation of the ability and energy with which he carried out his duty up to the date of his being invalided, and of the efficient manner in which he prepared for the medical requirements of the troops in the advance upon Coomassie. The organisation planned by him was well carried out by Surgeon-Major Mackinnon, C.B., who joined me on the march at Acroofoomu, and who has since continued to perform the duties of Principal Medical Officer to my entire satisfaction. Of the medical officers employed, I wish specially to bring to your notice the services of Surgeons-Major Woolfreys, Mosse, Waters, Jackson, and Turton, and Staff-Surgeon Irwin, R.N.; also of Surgeon G. W. McNalty, who has had charge of the head-quarter staff since we left Cape Coast Castle on our march to Coomassie."

The sick and wounded are stated by the last accounts to

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going on most satisfactorily, and this piece of news is the more important, as, from the sudden pause after so much excitement and the drenching rain to which the men had been exposed in their advance upon Coomassie, a heavier sick-list might very reasonably have been looked for. As we ventured last week to predict, the proportion of killed to wounded all through the fighting has been very small, and a great number of the wounds received have only been of a trifling character. This fortunate circumstance is to be attributed entirely to the inferior weapons with which the Ashantees were armed, as it is admitted on all hands that, had they been provided with rifles, it would have been impossible for our small force to have fought its way to Coomassie, so stubborn and determined was the resistance of the enemy.

The lesson of the campaign must have been a great blow to those despondent spirits who, on the outbreak of the war, inundated the papers with letters full of the most dire forebodings as to the result; to the reflective mind it will have shown the mighty superiority of intellect over mere brute force. In former days the same dogged courage and determination existed in our countrymen, but science was not in possession of so many means and appliances for preserving the health of our troops. In the very commencement of the present operations, the Medical Department was singled out to bear the greatest responsibility, and most satisfactorily has it responded to the call upon its services. The medical staff of the expedition, composed almost entirely of volunteers from the general service, have freely exposed themselves upon every occasion, and earned the good opinions of all; and when the rewards for such a successful termination to hostilities come to be distributed, we trust—after Sir Garnet Wolseley's eulogiums—they will not be forgotten. And that the results of the campaign *are* satisfactory we think nobody will deny. The Ashantee power, which has for many years more or less openly defied us, has been broken; our power and prestige have been firmly established throughout the whole of Western Africa; and, what is almost of equal importance, sanitary measures have been largely introduced both at Cape Coast Castle and Sierra Leone—a step which, if only persevered in, will be the means of saving innumerable lives, even in this most unhealthy corner of the globe.

POISONED PILLS.

Under the above heading, it may be remembered that we published a remarkable account of a quack named George Bone, *alias* "Professor Morris," having been found guilty of having caused the death of Arthur Cooper, aged twenty-two, by having administered to him pills containing poison. At the Hertford Assizes, last week, the said quack doctor was brought up for trial before Justice Lush on the charge of manslaughter. From the medical evidence given by Mr. Richard Shillitoe, of Hitchin, it appeared that the deceased died shortly after having taken one of the prisoner's pills; that he took five in all; and that at the post-mortem examination nothing was found to account for death except an inflamed condition of the whole digestive canal, closely resembling the appearances presented in a case of irritant poisoning. The stomach, intestines, and spleen, together with the box of pills obtained by the deceased from the quack, were consequently forwarded to London to Dr. George Harley, F.R.S., for analysis, and the evidence given by that gentleman in court went to prove that the deceased died from the effects of arsenic, that poison having been found in considerable quantity in both stomach and intestines, while the tissues of the spleen itself also contained an amount more than sufficient for the application of all the necessary tests. Indeed, Dr. George Harley produced in court the poison he had extracted from the spleen and stomach, both in a metallic form and in the shape of crystalline arsenious acid. The pills which were found in the jacket-pocket of the deceased, and which were the same as those he had taken, were also shown to contain a distinct quantity of arsenic. His Lordship, in summing up the case, remarked to the jury that if they were satisfied that the young man was poisoned by these pills, it appeared to him that the prisoner was criminally responsible. In that case either the prisoner did not know the qualities of arsenic, or what quantity of it to put in the pills, or else he must recklessly have disregarded the limitations necessary to be observed. There was no suggestion that he entrusted anybody else with the making of these pills, and that by inadvertence or accident the poisonous ingredients found their way into them. The defence was that there was no poisonous ingredient in the pills. If they were satisfied that the pills were poisonous, and that the young man was poisoned by them, they must find the prisoner guilty. He did not know that there was any dispute about the law in such a case as this. If a medical man of the highest class were, through a pure mistake, to substitute one sort of medicine for another, that would not make him criminally responsible. But, on the other hand, if a person totally ignorant of the science of medicine takes upon himself to administer a violent and dangerous remedy to one labouring under a disease, and death results, then that person is guilty of manslaughter. No person was justified in using such a deadly poison as arsenic in compounding pills, until he had ascertained with the utmost exactness what was the proper proportion to be used. The jury retired for deliberation, and on their return into court they found the prisoner guilty, and appended to their verdict a strong recommendation to mercy, on the ground that he administered the medicine without knowing it to be so poisonous in its nature. Sentence was deferred till the following day, when the judge, addressing the prisoner, said:—

"I wish you had proved here by the chemists with whom you so dealt what ingredients you had bought. You may have obtained this arsenic without your knowledge from some shop or other, and I should have been better satisfied if you had called some witness to show where you got the drugs, and what were the ingredients used in these pills. You did not do so, and the jury have come to the conclusion—and I think they were well warranted in coming to the conclusion—that the pills you gave out to the poor woman, and which were taken by her son, did contain arsenic, by means of which he came to his death. You are responsible in point of law for that, unless you could show that the arsenic was put in without your knowledge, that you purchased it under some other name, not knowing its poisonous quality. I must deal with the case as one deserving a sentence; but, considering the circumstances, I do not think it is a case for a severe sentence. I am fortified in that view by the strong recommendation to mercy made by the jury on the ground that you were not aware of the highly poisonous character of the ingredients. I therefore sentence you to three calendar months' imprisonment without hard labour."

THE "WESTMINSTER REVIEW" ON THE ABUSES OF MEDICAL CHARITY.

The present number of the *Westminster Review* has reached a second edition, mainly, we believe, owing to a most valuable article which it contains on the subject of medical charity. First, the author proceeds to show the amazing extent of the medical charities of London, and their enormous cost. It is, moreover, shown that this cost varies very greatly in different institutions, being in some out of all proportion to the amount of good done. The author next proceeds to investigate the question whether the patients treated are really all of the class that ought to receive medical relief; and to this question recent inquiry shows there can be but one reply—that these so-called charities are abused to an enormous extent. The exact amount of this abuse is not easily ascertained. Flagrant instances are constantly occurring, but the exact proportion of these to truly deserving cases is hard to make out. But the admitted existence of such abuses establishes the necessity for investigation; and

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throughout the country earnest attempts are being made at some measures of reform. It is, however, still a question whether the admitted evil overbalances the admitted good; and if it does not—an opinion which most men will endorse—it is only a question of reform and modification, not of cutting off all medical charity root and branch. Reform, and the acknowledged necessity for reform, of course involve a question of management, and in the article now before us is an account of one institution managed so flagrantly that it deserves only unqualified condemnation. The report of the condition of things at the Metropolitan Free Hospital here given, and which, so far as we know, is uncontradicted, is of the most scathing description, but not one whit more so than it deserves if the facts are as here stated. In every respect this institution seems at fault, and we can only say that if all metropolitan hospitals are as bad—and some, we believe, are even worse—the sooner they are improved off the face of the earth the better. To all interested in the subject of medical charity we can commend this article. We do not ask them to pin their faith to it in every detail, but it is certainly very well worth attentive study.

THE MEDICAL SOCIETY OF LONDON.

On the evening of Monday last, the 9th instant, this Society sat down to celebrate their 101st anniversary by a dinner in St. James's Hall; the President, Dr. Habershon, in the chair. A large company of Fellows and visitors were present, and spent a pleasant evening. Various toasts were proposed and received in suitable fashion; in particular the health of Sir George Burrows, Bart., who, as President of the Royal College of Physicians, was present on the occasion, was rapturously received. In returning thanks the learned baronet alluded to the honour recently done him, and stated that it was expressly mentioned in the communication he received that it was the intention of Mr. Gladstone to do honour to the profession through him. Mr. De Méric, the in-coming President, in replying to the way in which the Society had received the toast of his health, called attention to the good feeling that had always pervaded the Society, and the advantages it gained from the giving of the Lettsomian Lectures and the yearly oration, mentioning Dr. Richardson, Mr. Henry Smith, and Dr. Broadbent, and hoping that the Society would remain in as good a state at the close of his year of office as it now was in. The Fothergillian gold medallist, Dr. J. K. Spender, of Bath, received his gold medal and returned thanks; and, lastly, the President thanked the gentlemen who had sung so nicely under the leadership of Dr. F. T. Roberts. This old and respected Society is to be sincerely congratulated on its flourishing condition. With its hundredth birthday it seems to have taken a new lease of life. That it may enjoy not a green old age, but a perennial youth, is our hearty wish. The following is a list of office-bearers for the session:—*President:* Victor de Méric, F.R.C.S. *Vice-Presidents:* A. E. Sansom, M.D.; F. J. Gant, F.R.C.S.; W. H. Broadbent, M.D., F.R.C.P.; H. Royes Bell, F.R.C.S. *Treasurer:* John Gay, F.R.C.S. *Librarian:* J. C. Thorowgood, M.D. *Secretaries in Ordinary:* F. W. Braine, F.R.C.S.; C. T. Williams, M.A., M.D., F.R.C.P. *Secretary for Foreign Correspondence:* W. Cholmeley, M.D., F.R.C.P. *Orator:* F. E. Anstie, M.D., F.R.C.P. *Council:* John Brunton, M.A., M.D.; Thomas Bryant, F.R.C.S.; Alfred Carpenter, M.D.; R. Brudenell Carter, F.R.C.S.; Alfred Cooper, F.R.C.S.; R. A. Farquharson, M.D.; Clement Godson, M.D.; S. O. Habershon, M.D., F.R.C.P.; John Hainworth, F.R.C.S.; T. Harvey Hill, Esq.; Constantine Holman, M.D.; J. Hughlings-Jackson, M.D., F.R.C.P.; Francis Mason, F.R.C.S.; R. P. Middlemist, Esq.; J. H. Paul, M.D.; R. Douglas Powell, M.D., F.R.C.P.; Leonard Sedgwick, M.D.; E. Symes Thompson, M.D., F.R.C.P.; E. Sparshall Willett, M.D.; Alfred Wiltshire, M.D.

THE QUEEN'S HOSPITAL, BIRMINGHAM.

The thirty-third annual report of the Committee of Management of the Queen's Hospital, Birmingham, has been issued. The statement of accounts for the year shows the expenditure of the Hospital to have been £8421 1s. 11d., and the total income £5485 19s. 1d., leaving a considerable deficiency to be made good. The Medical Committee report that the number of in-patients admitted during 1873 was 1851, and of out-patients 15,204. A supplementary report is appended, in which the Medical Board take the "opportunity to make mention of the eminent services of their colleague Mr. Gamgee, in instituting and promoting the extension movement," as well as "in setting on foot and bringing to a successful termination the first Hospital Saturday collection in the town."

MEDICAL EDUCATION OF WOMEN IN EDINBURGH.

The female medical party in Edinburgh seem determined not to allow any opportunity to pass of convincing society and Government of their continued existence. They have resolved to memorialise Mr. Disraeli to the effect that "it is important that steps should be taken to bring before Parliament a Bill for enabling the Universities to admit women to medical education and degrees." This resolution was moved by Dr. George Balfour at a meeting held in Edinburgh last week, which was graced by the presence of a few University professors and a quorum of Edinburgh citizens and medical "Misses," whose perseverance in the cause, and sympathy with its unsuccessful votaries, seem to entitle them to newspaper specification. Professor Masson read the budget for the year 1873, which shows a gratifying surplus almost sufficient to defray the expenses of another lawsuit. It must be very pleasing to medical women to have Professor Masson's much-needed assurance regarding the success and the characteristic modesty of the movement. The learned Professor is well versed in social history, yet "he did not know that any organisation so modest in its motives had ever achieved so much at so little expense." The Rev. Narayan Sheshadri, whose name is not quite so familiar to us as that of the ladies' professional champion, feels assured that the "lady doctors would be hailed in his country as a great blessing." It is a pity that his country should suffer from such a deprivation, when the great majority of Edinburgh people would no doubt be only too glad to let him have them at his own valuation. Some of them appear to be almost ready to enter the profession, and we presume that, if they possess the proper skill, the mere want of diplomas will not stand in the way of that brilliant success which Mr. Sheshadri anticipates for them amongst the 125,000,000 of women in India. Dr. George Balfour thinks that the present action of the female medical party in memorialising Mr. Disraeli in the terms of his own motion seems rather incongruous; but general sympathy will be more freely extended to Mr. Cotterill, who has expressed his "regret that it was among ladies they found the most uncompromising opposition to justice being done to their own sex." It is, indeed, surprising that a movement so "modest in its motives," and so economically successful, should meet with such a desperate opposition from refined and influential women. At least, it must appear so from Mr. Cotterill's point of view. It is not difficult to imagine Mr. Disraeli's policy in this case.

ROYAL MEDICAL SOCIETY OF EDINBURGH.

The annual dinner of the Royal Medical Society of Edinburgh was held at the Douglas Hotel on the 24th ult., under the presidency of Mr. G. T. Beatson, B.A. Nearly all the Uni

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versity professors were present, and a large number of other distinguished physicians and surgeons. Among the guests were Mr. J. Cowan, M.P., and Sir A. Grant, Principal of the University.

DEATH OF CRUVEILHIER.

Our Paris Correspondent writes to us as follows:—"I regret to have to announce the death of Dr. Cruveilhier, one of the oldest physicians of Paris, which has just taken place at his country house, whither he had retired about four years ago. His health had for some time been failing, and his memory latterly became so affected as to render it impossible for him to continue in his practice. He took his degree in 1815, and counted at his death more than fourscore years. Unlike most of his compatriots, he had a large family, consisting of sixteen children, among whom is a son who is already a distinguished hospital surgeon and *agrégé* or under-Professor at the Faculty of Medicine. Dr. Cruveilhier was also a member of the Academy of Medicine, and of several other learned bodies throughout the world."

LETTER FROM THE GOLD COAST.

(*From our Special Correspondent.*)

Cape Coast Castle, January 31.

Arrangements for Removal of the Sick from the Shore to the "Victor Emmanuel"—Surf-Boats—Admissions into the Hospital-Ship: Prevailing Class of Cases; Numbers Discharged—Sick in the Hospital at Cape Coast Castle.

The arrangements for the removal of the sick from Cape Coast Castle to the hospital-ship *Victor Emmanuel* are now very complete. The men are conveyed in cots, carried by native bearers, from the General Hospital or that at Connor's-hill, as the case may be, to the beach. On arrival there, those who are strong enough to get into the surf-boats do so, or are moved in with the assistance of the orderlies and boatmen, the more delicate patients being carried into the boats in their cots, which are specially fitted for slinging on board ship, and in which they lie until hoisted on board. The larger surf-boats used for the conveyance of the sick from the shore hold twenty men, and can accommodate three cots laid crosswise. The men sit on the ordinary seats, of which there are six in each boat. The surf is at times pretty high, but it has never been, so far as I have seen, anything like the pictorial representations of it in the home illustrated journals; and during the past month on no occasion has it been such as to present any difficulty to the safe and comfortable removal of the sick. A medical officer invariably superintends the removal of the sick to the boats, and the orderly medical officer in waiting of the *Victor Emmanuel* accompanies the party from the shore to the vessel. When cot cases are expected, trained orderlies from the ship are taken on shore for attendance upon the sick *in transitu*. When the surf-boat or boats, as the case may be, reach the smooth water, they are taken in tow by the steam pinnace of the *Victor Emmanuel*, under the command of a naval sub-lieutenant. On arrival at the hospital-ship, the cot cases are slung up by means of a block and pulley worked from the poop, to the promenade, or "bird-cage" as we generally call it, on the main deck. The very weak patients are then either carried in their cots or are gently borne by orderlies of the hospital corps to the beds which have been told off for them in the hospital. A naval lieutenant, with a warrant officer, superintends the process of slinging the sick on board; and considerable skill is required for the management of this operation, on account of the heavy swell so constant at this place. The orderly medical officer of the day receives over the sick men, with their documents, from the orderly officer in waiting who has brought them off from the shore, and he examines each man as he arrives on the main (or hospital) deck. Convalescent patients at times come on board by the gangway, but this is the exception, and only allowed in the smoothest weather. As a rule, all sick are slung on board, and the operation is performed most satisfactorily and expeditiously. Some forty men came off one evening lately, and before half an hour had elapsed from the arrival of the surf-boat alongside they were all on board, had clean sheets and linen, were placed in bed, and had a pint of good beef-tea issued to each individual. The steam pinnace goes on shore each morning at 5.30, and in the afternoon at 3.30. When there are sick to be sent on board the transport, the medical officer on shore signals to the sub-lieutenant by an affirmative sign; and when there are no sick to be despatched the negative signal is used. A red flag, with a white St. George's Cross, indicates that there are patients to come off; and a white flag, with five small black crosses, signifies that there are none. These signals from the Castle are answered by similar flags from the steam pinnace of the *Victor Emmanuel*, which, by way of distinction, carries a Blue Peter hoisted at her stern.

The new hospital surf-boats lately arrived by the hired transport *Sprite* are too heavy for the natives to work satisfactorily, and their paddles are too small. There is also considerable difficulty in getting them off the beach into the water, owing to their weight, and they are hard to steer when being towed. The latter is the main objection to their use, as the jerking and bumping were found to be trying to the sick. Hence they have been discontinued, so far as towing is concerned, in favour of the older and lighter surf-boats, and are now only employed between the ships in port. When so used they are paddled by Kroomen, and, having waterproof awnings, can be employed in wet weather for paddling off the sick from the shore.

February 2.

During the four weeks ending January 30 there have been 194 cases admitted into the hospital ship. Of these 161 were received within the last three weeks.

The prevailing type of disease on shore is fever, of a more or less distinctly remittent form—the "climatorial bilious remittent" of some, and the "coast fever" of other writers. No less than 104 cases of this form have been admitted within the period above specified, while within the same period only twelve cases of ague and five of continued fever presented themselves. The former occurred in individuals who had had intermittent fever before, while serving in India, and the latter were probably due to exposure to direct solar influence. Of the 194 admissions, thirty-four have been discharged as convalescents, but have not disembarked, sixty-two have been invalided to England, six have been discharged to duty on board ship, two to duty on shore, and ninety-eight remain under treatment.

There are between ninety and one hundred sick soldiers in hospital at Cape Coast Castle, and arrangements have been made to take twenty on an average daily on board the hospital-ship.

The convalescents from the *Victor Emmanuel* will be drafted on board H.M. steam troopship *Tamar*, and a strong party of invalids will leave for St. Vincent, Cape de Verd, by the *Sprite* on the 6th, and the *Elizabeth Martin* about February 10.

I hope to send by next mail notes of cases treated.

THE WEBB FUND.

The following contributions have been received by Mr. Augustus Churchill, the Treasurer, to the 11th inst.:—

	£	s.	d.
Dr. Richardson	5	5	0
Dr. Chadwick	1	1	0
Mr. R. Ratcliff	5	0	0
Mr. Sergeant Robinson ...	3	3	0
Miss Maria Coulson ...	2	0	0
Mr. Carl Feish	2	2	0
Mr. C. W. White	5	5	0
Baroness Meyer de Rothschild	5	0	0
Mr. Edward Curd	5	5	0
Mr. R. F. Curd	5	5	0
A Friend	10	10	0
Ditto	1	1	0
Dr. Pett	2	2	0
Dr. Smith	1	1	0
Dr. Moorhead	1	1	0
Dr. Lush	0	10	6
Dr. Griffin	0	10	6
Dr. Tisard	0	10	6
Dr. Rhodes	0	10	6
A Friend of Dr. Druitt ...	5	0	0
Five Ladies at Weymouth	5	0	6
A Friend at Norwich ...	1	0	0
Mrs. Low	2	2	0
The Misses Low	1	1	0
Mr. Edward Lund... ...	2	2	0
The Misses Ratcliff ...	20	0	0
Mr. R. S. Tomlinson ...	5	0	0
Mrs. T. Robinson	5	0	0
Miss Cooper...	3	0	0
Mrs. Robinson	3	0	0
Miss Goodger	2	0	0
Dr. Peyton Blakiston ...	20	0	0
A Friend	3	3	0
In Memoriam	5	5	0
Mr. A. P. Price	2	2	0
W. W. V.	20	0	0
Mr. H. Doulton	10	0	0
Tredegar Iron Company ...	10	0	0
	181	18	6
Amount previously acknowledged ...	1296	15	6
Total	£1478	14	0

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ABSTRACT OF

THE CROONIAN LECTURES.

DELIVERED AT THE ROYAL COLLEGE OF PHYSICIANS.

By CHARLES MURCHISON, M.D., F.R.C.P., F.R.S., LL.D.,
Physician to St. Thomas's Hospital.

ON FUNCTIONAL DISEASES OF THE LIVER.

LECTURE I.

AFTER a rapid sketch of the life of Dr. Croone, who founded and endowed the lectures bearing his name, Dr. Murchison at once passed on to consider the subject which he had chosen—namely, the functional diseases of the liver. The subject is one which well deserves the careful attention of the whole profession. The most vague general opinions exist of the signification of the term "functional disease of the liver," and the expressions "bile" and "disordered liver," which are in constant use, are employed where they cannot be defined. Again, it is a remarkable fact that the class of diseases under consideration are often perfectly ignored by writers on the affections of the liver. The present lectures are intended to supply to some extent this deficiency, and to awaken such attention, and, it may be, excite such discussion as will serve to advance the knowledge of a somewhat neglected subject.

Before entering upon their disorders, the functions of the liver themselves in the healthy state must be enumerated and briefly considered. In ancient times the notions of the functions of the liver were very crude. Galen taught that the liver was the centre of animal heat, the venous centre, and the seat of sanguification, the radicles being the veins of the bowels. For sixteen centuries this doctrine prevailed, and even Harvey himself upheld it. But the discovery of the lacteals and thoracic duct, and of absorption through them, at once destroyed the importance which the liver had hitherto possessed, and reduced it to a mere organ for the secretion of bile. Although physiologists did not fail to wonder that the largest gland in the body should have this simple function and none else, yet this belief in the purely biliary action of the liver persists to the present day, and its functional derangements, in their general acceptation, refer only to the amount and quality of the bile which it secretes. Copland's classification of functional diseases of the liver includes only biliary derangements. But within the last quarter of a century physiology has restored to the liver the functions of which it had been deprived, and the morbid conditions of these must therefore be extended and rearranged.

The functions of the liver are threefold. First, we know that it is engaged in the processes of sanguification and nutrition. Long ago Magendie and others proved that part of assimilation was performed by this route. Much more recently Bernard and others have discovered the glycogenic function of the liver. Glycogen always exists in the normal liver, more abundantly during digestion, and especially four or five hours after a meal. We do not yet know with certainty what is the main source of glycogen, but it is probably derived chiefly from sugar and starch. The glycogen is stored in the liver cells. It is also derived, without doubt, from albuminates, for it increases after a purely flesh diet. Peptones are first formed, and, reaching the liver by being absorbed, are there decomposed into glycogen and certain nitrogenous substances such as tyrosine. Thus formed, glycogen is not excreted in the bile, for the latter contains neither glycogen nor sugar. It is probably retransformed in some way into sugar, and re-enters the blood; and in this very process of decomposition heat is evolved, thus connecting the liver with the generation of animal heat. Part only of the glycogen is decomposed in this way. It probably contributes much to cell-growth in the animal body, just as sugar does to cell-growth in plants. Glycogen has been found wherever there are active cells—in muscle, in the placenta, in the products of pneumonia, etc.; and Hoppe-Seyler has shown that it exists in colourless blood-corpuscles as long as they possess the power of spontaneous movement, while it changes into sugar when this power is lost.

The participation of the liver in the process of sanguification is supported by an examination of the blood of the hepatic vein. The blood which leaves the liver is five or ten times more rich in colourless corpuscles than is the blood which enters it. The red corpuscles, also, of the hepatic vein are sharper in outline, and less soluble in water, and have less tendency to form *rouleaux*. Weber and Kölliker also have shown that in the fœtus colourless corpuscles are formed in the liver, and become developed into red corpuscles by the addition of colouring matter, the process continuing in mammalia through the whole period of fœtal life. Dr. Pavy thinks that glycogen may be transformed into fat; and there is no doubt that ingested starch and sugar become fat, while they increase the amount of glycogen in the liver. There are also good grounds for believing that sugar and glycogen have an important function to perform in muscular action. Whatever, then, may be the other functions of the liver, there is no doubt that sanguification is one.

Secondly, the liver performs another function—that of the disintegration of albuminous matter. It is a blood-destroying, a blood-purifying, gland. The products of this decomposition pass out by other channels than the bile. There is, for example, little doubt that albumen and fibrine are disintegrated in the liver. Brown-Séquard has calculated that no less than eighty-six ounces and a half of fibrine are lost to the blood every twenty-four hours in its passage through the digestive organs and liver. Some of the red corpuscles themselves are also in all probability destroyed in the liver, the biliary and urinary pigments being part of the products. A solution of the bile-acids immediately destroys red corpuscles. There is evidence, too, that the liver is largely concerned in the formation of the nitrogenous matters eliminated by the kidneys. It has been abundantly proved that the amount of urea excreted is diminished by organic disease or destruction of part of the liver, as in cancer and abscess. Dr. Parkes found by careful investigation, not only that in hepatic abscess the amount of urea excreted was below the normal, but that the deficiency of urea, and the extent of liver-substance destroyed, were in direct proportion to each other. In the early stage of liver disease, on the other hand, when the gland is congested and its functional activity increased, there is a rise in the amount of urea excreted. In the disease known as acute atrophy of the liver, all trace of urea may disappear from the urine, and leucine and tyrosine make their appearance, both there and in the substance of the liver. And, lastly, there are good grounds for believing that the cerebral symptoms which are sometimes developed in the course of jaundice are referable to non-elimination of urea, and not, as is extensively thought, to poisoning by bile. All these circumstances point to the intimate connexion between urea and the functions of the liver. But this has been more positively indicated by the results of recent experiments, which prove that urea can be largely formed in the liver. Cyon's investigations show that it may be actually found there. The blood contains more urea after passing through the liver; urea is more abundant after digestion; and lithic acid, which represents urea in birds, may be found in the livers of this class of animals. Everything, therefore, seems to point to the liver being connected with the disintegration of albuminous matter, the products of which are excreted by the kidneys. All these processes are attended with a production of heat. The liver has a healthy temperature of 104° to 106°, and the temperature of the hepatic vein is higher than that of the portal. So that after so many centuries we return to the position of Galen, and accept the liver as one of the centres of animal heat.

The third function of the liver is the secretion of bile. This is a highly complex fluid, with certain physical and chemical characters. Dr. Murchison here enumerated the constituents of bile, and briefly described the most important of them. Speaking of bilirubine, one of the bile-pigments, he pointed out that it is formed from hæmoglobin by the hepatic cells. Dr. Saunders had suggested this transformation of the colouring matter of blood into the colouring matter of bile very many years ago, and the idea was revived by Virchow, and supported by the observation of Frerichs and many others. On the other hand, there are grounds for the belief that bilirubine is excreted as urinary pigments. Nothing so much affects the colour of urinary deposits as disease of the liver. Cholesterine has recently been said by Dr. Austin Flint, jun., to be formed chiefly from nervous tissue, and to be excreted by the liver. Coming to the question of the precise situation where the bile-pigments are formed, Dr. Murchison stated that it had long appeared to him that they are not formed in the blood, as some physiologists contend, and secreted from this by the liver, but formed in the liver itself. Several arguments

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be adduced in favour of this belief. It has never been proved that bile-pigment as such ever exists in the blood, except in jaundice. Its quantity must be extremely minute, if it exist at all. Even should someone find a trace of bile-pigment in the blood, how can he prove that it does not come from the liver? There are, again, many diseases of the liver in which no bile is secreted, and yet no jaundice results. The gall-bladder and the ducts are found filled with a simple mucous fluid. What has come of the colouring matter in such cases? Were the theory of formation of the bile-pigments in the blood correct, then intense jaundice ought to follow the extirpation of the liver. But many physiologists have performed this experiment without such a result.

The quantity of bile secreted by a healthy animal has been found to increase during digestion. Taking an average of the results obtained by the best experimenters, we find that a man of 160 pounds probably produces about forty ounces of bile in twenty-four hours. This amount agrees with the results of observations in cases of biliary fistulæ in man. A good example of this rare condition lately came under the notice of the lecturer. A lady of forty had obstruction of the cystic duct by a calculus; inflammation of the gall-bladder followed, and thereafter perforation of the abdominal wall and discharge externally. After some months the obstructing stone passed into the common bile-duct, and thereupon bile began to discharge by the fistula. The quantity secreted was carefully collected, and found to measure two pints in twenty-four hours. The stone afterwards passed into the duodenum, and the symptoms were relieved. The exact amount of bile secreted must, however, vary considerably with the person and his circumstances. It must not be forgotten that the amount of bile excreted is a very small proportion of that secreted. According to Berzelius, only about one-fortieth of the bile is actually discharged from the body. The pigments have generally been believed to be voided in the fæces only; but we now know that part appears in the urine. The question then arises, What comes of the bile? This is an inquiry which has an important bearing on jaundice and functional derangements of the liver. The bile is undoubtedly reabsorbed on its way along the intestine. This process is part of the great osmotic circulation which goes on between the contents of the alimentary canal and the blood, and which is most abundantly represented by the secretion of gastric juice and saliva, and the fluids poured out by the pancreas and the glands of the intestines. All these pass again in great measure into the vessels, and the process well deserves the name of "the intermediate circulation." In the gut the bile assists digestion; it aids in the absorption of fat; it facilitates the absorption of albuminous substances by precipitating peptones; and it seems (from the recent experiments of Dr. Wickham Legg) to have some effect upon the formation of glycogen. It also stimulates the peristaltic movements of the intestine, and prevents decomposition. Part, as has been said, is excrementitious.

The functions of the liver, therefore, are threefold. If we keep this steadily in view we shall be better able to study its functional derangements. Previous classifications of these have referred to the biliary function only of the liver. It has just been pointed out that the amount of bile excreted from the bowel is no indication of the amount really secreted by the liver. Mercury, podophyllin, etc., may sweep out the bile from the intestine before it is absorbed; but it does not follow that more has been secreted. Dr. Murchison, therefore, proposes another classification of functional derangements of the liver. This is the following:—1. Abnormal nutrition. 2. Abnormal elimination. 3. Abnormal disintegration. 4. Derangements of the organs of digestion. 5. Derangements of the nervous system. 6. Derangements of the organs of circulation. 7. Derangements of the organs of respiration. 8. Derangements of the urinary organs. 9. Abnormal conditions of skin.

PRIZE QUESTIONS OF THE SOCIÉTÉ DE CHIRURGIE DE PARIS FOR 1875.—The subject for the Laborie Prize of 1200 fr. is—"Establish by the aid of Cases the Therapeutical Value of Internal Urethrotomy." The subject for the Gerdy Prize of 2000 fr. is—"On the Action of the Air on Wounds considered in an Historical and Doctrinal Point of View." The Society is very desirous that the historical portions of these questions should be well worked out. Essays to be forwarded to the secretary of the Society, 3, Rue de l'Abbaye, before November 1, 1875.

ABSTRACT OF

THE GOULSTONIAN LECTURES.

DELIVERED AT THE ROYAL COLLEGE OF PHYSICIANS.

By J. F. PAYNE, M.B. Oxon., F.R.C.P.,
Assistant-Physician to St. Thomas's Hospital.

ON THE ORIGIN AND RELATIONS OF NEW GROWTHS.

LECTURE I.

THE term tumour, which was, I suppose, the one first applied to the structures which I have called new growths, had once it is needless to say, a very wide range of meaning, and even in modern times has been used with considerable laxity. My remarks will be confined to those tumours which may be fairly described as new growths, omitting mere enlargements of parts already existing, and the products of inflammation whether acute or chronic, and omitting also the consideration of syphilitic and tubercular products, as being more nearly allied to inflammation.

The group thus limited includes all new formations, in the form of a more or less circumscribed mass of substance resembling the simple tissues of the body, or immature stages of them; it includes, also, those productions known as cancers, and various growths nearly allied to these, known as sarcomatous tumours.

Among the simple tissue-tumours, I recognise fibrous (fibroma), mucous (myxoma), fatty (lipoma), cartilaginous (enchondroma), osseous (osteoma), vascular (angioma), muscular (myoma), nervous (neuroma), glandular (adenoma), and lymphatic (lymphoma and lymphangioma). Under cancers, I include epithelial cancer or epithelioma; and under sarcomatous tumours, several forms which approximate to simple growths. Finally, there are combinations of the forms just mentioned.

The chief fact which all these structures have in common is the fact of growth or increase, and, moreover, of a growth which appears to be, in a certain sense, independent of that of the body, as if the tumour had some separate life of its own. So strongly did this impress the older observers, that for a long time tumours were regarded as something parasitic, or foreign to the organism.

The idea of a separate life is, of course, now untenable, and no one can doubt that a tumour is essentially a part of the body; but, nevertheless, there are certain respects, both morphological and dynamical, in which tumours do separate themselves from the general unity of forces displayed in the organism. Dynamically or physiologically speaking, we may say that this departure consists in a preponderance of the vegetative, and an almost entire absence of the animal, life.

To illustrate our present point, we may compare, for instance, the physiological growth of muscular tissue in the uterus during pregnancy, with the pathological production of the same tissue in the form of tumours. In early stages, we know that the process of growth is essentially the same in both cases. There is in both a new production of muscular fibre-cells, and the histological development appears to be identical.(a) The production of new tissue in the simple physiological hypertrophy of the gravid uterus is as abundant as that in many tumours; it must also be equally rapid; but it reaches a certain limit, and conforms to a certain type; while the tumour, on the other hand, has no very definite limit, and shows no conformity to rule in its shape. The chief point of contrast seems to be that the uterus, however large, is still capable of exercising normal functions, and there will thus always be a certain liberation of force, proportional to the pressure which the organ has to sustain, even independently of the immense efforts of parturition. The muscular tissue contained in a tumour, on the other hand, although also capable of liberation of energy by contraction (for spontaneous contraction has been observed in such tumours), does not, in fact, exercise any force; its situation and relations make this impossible. Whatever nutriment, then, it receives, will all be applied to the accumulation of tissue—that is, to growth. The surplus of nutrition over expenditure will, in fact, be nearly the whole of the

(a) The identity of the processes was, indeed, observed directly by Dr. Bristowe in the tumours of the pregnant uterus. (*Path. Trans.*, iv., 218.)

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nutrition. What wonder, then, that such structures, once commenced, show such monstrous exaggeration of growth?

For the formation of tumours or new growths, I have been able to arrive at no better definition than this: the addition to an organism, which is in its general outlines already completed, of new parts without any definite function. Such a process must be—in the case of highly organised animals, at all events—one extremely abnormal. To explain it all, we must have recourse to the method of a comparison, and endeavour to find out what better known processes it most resembles, and what, on comparing it with each of these successively, are the points of likeness and the points of contrast.

It appears that there are three processes much more commonly met with in living bodies with which the production of tumours may advantageously be compared. These are the formation of parts in the incomplete embryonic organism; the reproduction of parts worn out or lost in the complete organism; and, finally, the enlargement of parts already existing. Of these three processes—embryonic development, repair, and hypertrophy—each possesses some point of contact with the processes of which we are to speak; in fact, so gradual is the transition in some cases from each of them to tumour-formation, that it may be difficult to know what term we ought to apply. The transition from embryonic development to tumour-formation is seen, for instance, in the occurrence of congenital tumours. Sometimes, as in the peculiar congenital tumours from the sacral region, a continous series may be traced from a comparatively simple cystic structure through teratoid forms, gradually increasing in complexity up to a complete twin fœtus, or "pygodidymus."

The transition from repair to tumour-formation is also quite gradual. It is seen, on the one hand, in such structures as granulations, which would be called new growths had they a more permanent existence; and in such growths as cicatricial keloid, which, though ultimately tumours, start from a scar.

Finally, that there are numerous transitions from hypertrophy to tumour-formation is a fact so generally recognised that it need hardly be insisted upon as a general principle, though certain special cases will afterwards be discussed. It seems, then, worth while to follow out the three lines of comparison here suggested, and to see how far the formation of tumours agrees with or differs from each of these processes. In making these comparisons I shall, in the first place, confine myself chiefly to the consideration of tumours which resemble the simple tissues of the body, since the formation of each of these must, of course, be more nearly paralleled by physiological formations than the malignant heterologous growths, such as cancer and sarcoma; but it is not always possible to draw the line, and I hope to show in subsequent lectures that the same principles which apply to the one class of tumours apply also to the other.

The whole process of development, whether of organisms or of parts, may be summed up as being histogenesis by cell-proliferation and multiplication; the development controlled by certain obscure laws of size and form, and involving constant progression from the general to the special.

On comparing with this process the process of tumour-development, it is impossible to deny the close analogy of the early stages in both, and of the results up to a certain point. In both cases, cell-proliferation and multiplication are the starting-point of growth. Whether, indeed, a tumour starts from a single cell, like the ovum, or a single germinal centre (as, according to Goodsir, do the limbs and other parts of the body), is uncertain, for the actual beginning of all tumours is concealed from us. When we are able to examine the process, we find germination taking place from several points, but it may, of course, have originated in the first place at one.

The analogy between these processes is, as is well known, the basis of the Cellular Pathology of Virchow. Confining ourselves to the subject of new growths, we find Virchow laying down the general principle that they all pass through a stage comparable to the undifferentiated cellular stage of the embryo. This is the stage of "indifferent cell-proliferation," in which all the elements are alike, whatever they may be destined ultimately to become. A mass of these indifferent corpuscles he supposes to have a latent possibility of differentiation and development like that of the cells of the embryo; so that of these elements, which appear quite like one another, some may become epithelium, some cartilage, some bone, and so on.

Indifferent cell-proliferation is an undoubted fact; we may see it at the margin of almost every growing tumour. Sometimes, considerable masses of a tumour are made up of this, while other portions are more specialised. Nor need we hesitate to allow that, as the earlier stages of all animals have a considerable resemblance in structure, so have the early stages of all tissues. For instance, the Malpighian layer, or rete mucosum of the skin, from which the epidermis is formed, has a structure as "indifferent" as that of granulations or connective hypertrophy, which give rise to vessels and fibrous tissue. The difficulty is to allow as great a faculty of differentiation to the granulation material as to true embryonic tissue.

From all we must conclude that the process of tumour-formation is strictly analogous to that of embryonic development up to a certain point—namely, so far as both processes result in the formation of a mass of indifferent or similar cells, such as the mulberry-mass of the embryo, or the indifferent granulation-material of new growths. Beyond this, the parallel is less exact, and the progressive differentiation which is characteristic of embryonic development is less clearly traceable in tumours. The indifferent granulation-material, which is analogous to the undifferentiated embryonic structure, is capable of producing structures which vary within certain limits, such as the group of connective tissues, or, on the other hand, of producing epithelial elements; but it is uncertain whether the same group of cells can produce both.

One very striking coincidence may be noticed with regard to the point at which the resemblance ceases to be exact—viz., that the early stage of development of the ovum—that which is imitated by new growth—is possible, and perhaps even in some animals the rule, without impregnation. This amount of development is possible to elements derived from one organism alone, though conjugation with elements derived from another is necessary to establish the progressive differentiation which results in the development of a complex structure. We may, therefore, say that what amount of development an unimpregnated ovum is capable of, that, at least, is possible to new growths, which may imitate on the one hand the incomplete process of development of such ova in the higher animals, and on the other hand, in rare cases, make some approach to repeating the agamic reproduction of the lower animals.

It is well known that the capacity for reproducing lost parts differs very greatly in the animal kingdom; and, while it is generally greater in the lower than the higher animals, the differences are not entirely to be so explained. The most general law which seems to have been arrived at is this, that the capability of repair is inversely as the amount of metamorphoses or change which the animal has gone through. Insects, for instance, have no power of restoring lost parts; batrachia have a great deal. In the mammalia, at all events, this power is extremely limited. An organ once lost is lost irretrievably; and even the more specialised tissues, as muscle and ganglionic nervous matter, are usually replaced by other tissue not actually restored. These very tissues, it is worth notice, rarely or never appear in new growths. New growth, taken as a whole, has perhaps greater possibilities than has the process which constitutes repair—giving rise to more various and more specialised products. On the other hand, the latter process is far more completely subject to the general law of evolution of the whole organism, for the parts reproduced always conform to the size and shape of the whole body; while it is, of course, the most remarkable feature of new growths that they are so entirely unlimited in these respects. In other respects, the reproduction of lost limbs in some of the lower animals has a decided analogy to the production of a tumour.

With regard to the minute processes of repair, they differ from the corresponding processes in new growth very greatly in the degree to which the vessels and the blood with its formed elements participate therein. The share taken by vascular changes in ordinary repair is known to be very great; so much so, that it has been the great question with surgeons whether the healing of wounds is possible without inflammation. In new growth vascular phenomena seem to play a subordinate part, though perhaps their importance has been underrated. At all events, in order to compare the one with the other, we must leave out of account the vascular changes, and then find that the residue or changes in the fixed tissues in repair bear the closest analogy to new growth, being really, in the early stages, processes of germination and proliferation. These, of course, are also the tissue-changes in early stages of

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mation, with which repair is so intimately connected. In describing one we are, therefore, describing the other.

In the early stages of three different new growths—namely, cancer, sarcoma, and tubercle—we see proliferative changes, sometimes affecting the endothelium, sometimes the connective tissue. Without now dwelling on other peculiarities of these minute changes, it will be enough to have shown that in the early stages of all these growths there is actual germination of the tissues, and that the same is to be seen in inflammation. The appearances of inflammation in connective tissue are still more like those of certain stages of new growth. The diagram, for instance, representing indifferent cell-proliferation, might equally well stand for one of inflammation. At the same time, I must venture again to lay stress upon the immense preponderance, in the latter process, of phenomena connected with the vessels and blood-corpuscles, which are only subsidiary in the case of new growths. We know, moreover, that even the resemblances are only like the resemblance between all embryonic tissues, for instance; it is a resemblance involving great latent possibilities of difference.

If we pass to the more definite structures produced by the process of repair, we still see a considerable analogy between them and new growths. The repair of many tissues passes through a stage very fairly comparable to what we called the indifferent cell-proliferation of new growths. Granulations are tumours in everything but in permanence. It is unnecessary to describe their structure minutely. Essentially outgrowths of vessels, they possess a framework or stroma which, except in its extreme vascularity, is not unlike that of a lymphatic gland, and to which histologists have not always done justice; and, besides, we have a large number of lymphoid corpuscles. The structure has been compared to that of a round-celled sarcoma, but in reality it is only the cells that are alike; the architecture of the growth is very different. It might rather be called, in the nomenclature of new growths, a highly vascular fibroma, with very numerous migratory cells. But, as we know, this condition is far from permanent. Granulations either die away or else they lose their abundance of lymphoid cells; the fibrous element increases; and they become organised, as it is said, into fibrous connective tissue and similar tissues. Do they also become organised into epidermis? We know that some epidermis commonly covers them; and, according to the more generally accepted view, this is produced by metamorphoses of some of the lymphoid or indifferent cells. Some authorities, again, regard the epidermis as of different origin; and the question is so undecided, that we must hesitate to pronounce an opinion. The only point on which we must insist is that, both positively and negatively, those results agree perfectly with what we said just now about the indifferent cell-proliferation. The question of the origin of all epithelium produced for purposes of repair is one which I prefer to consider in the next lecture.

So far, then, as we are able to compare the phenomena of repair and inflammation with those of new growth, there are important analogies; but a large part of the phenomena of the two former processes—those, namely, connected with the vessels, exudation, and cell-migration—have not, so far as is yet known, their parallel in the development of tumours, except as simply subsidiary to the germinative changes.

The formation of new growths has, doubtless, many points of contact with the process by which existing parts of the body are increased in size. In the first place, those organs or parts of the body which are specially disposed to hypertrophy are, with certain exceptions, also very liable to become the seat of tumours. For instance, no tissue is so constantly liable to hypertrophy as the adipose; and precisely here do we find very common and sometimes enormously large tumours. No doubt the increasing skill and confidence of surgeons has made extremely large tumours less common of late years; but the largest tumour (so far as I know) on record is a fatty tumour, of which a drawing is preserved in the museum of the Harvard University at Boston, the entire weight of which was estimated at 275 lbs.—no doubt within the truth.

Again, we sometimes see that even the special parts of organs which are liable to hypertrophy are also liable to become the seat of new growth. In the skeleton, for instance, a remarkable proclivity to disease is observed in the long bones at the termination of the shaft, or close to the junction of the epiphysis. This is the portion which becomes enlarged in rickets, and it is also the most frequent situation for tumours. Some remarkable cases of multiple exostoses growing from these parts of the skeleton are on record, and illustrate in a striking manner the transition from overgrowth to new growth.

Lest I should be thought to have trespassed unduly on the field of the surgeon, let me select a very similar instance from among the diseases which traditional usage has assigned to our care. Enlargement of the lymphatic glands is well known to be an extremely common affection of the body, more especially during the period of growth, and this enlargement is sometimes merely transitory, sometimes chronic. The structure of the glands, thus enlarged, is not generally different from that of the normal glands. In another class of cases we have enlarged glands in outward appearance the same as these, but nevertheless differing both in their minute structure and in their history. Either the newly formed gland-tissue, by which hypertrophy is effected, is found to have an inadequate vitality, so that it speedily decays and becomes necrotic, in which case we call the change scrofulous; or else the newly formed gland-tissue becomes hard, loses some of its cellular elements, and shows increase of the fibrous element between the cells, till there results a change, recognisable by external characters, as induration, and, by its minute anatomy, as increase of the intercellular substance, or stroma. These two conditions—scrofulous change and induration—are the ultimate stages of chronic enlargement, or hypertrophy, from which, to them, there is a perfectly gradual transition; and at particular stages of the disease it would be impossible to say, with certainty, what name ought to be applied. Whether the ultimate difference depends upon difference in the original structure of the body, or upon nutrition, or upon external influences, we are rarely able to say.

In all these cases the form of the gland is not altered, and it would be only by a somewhat strained use of terms that we could describe the enlarged organs as tumours. Let us now go a step further, and consider those cases in which the glands are not only enlarged, but in which, by thickening or inflammation of their capsules, and the connective tissue around them (periadenitis), the group of glands becomes adherent together, and a lobular mass is formed, which not only possesses sufficient physical coherence to be regarded as a definite tumour, but also has evidently a certain physiological unity, being subject to the same laws of morbid growth. Is it possible to avoid calling this a tumour, or new growth? Certainly, in the present state of science, everyone would call this a lymphoma, while we should call an enlarged gland simply a case of hypertrophy. Yet it is quite certain that our powers of observation, at least, do not permit us to draw any line between the two. Nor is there, as I believe, any anatomical difference. One supposed distinction is the presence, in some cases, of peculiar elements—myeloid, or giant-cells—but these elements are found in many, if not in most, simply hyperplastic conditions of lymphatic glands.

If we now go a step further, and examine another class of cases, we shall find that, in specimens not differing very greatly from those last mentioned, the enlarged glands are in a direct connexion with masses of newly-formed tissue around them, more distinct and prominent than the thickening of the capsule. These masses of newly-formed tissue penetrate or infiltrate the neighbouring parts, and, so far as they reach, convert them into similar structure. This is, of course, not a case of adenitis, or periadenitis, but of an infective, or what is generally called malignant, tumour. Nevertheless, there are such cases, in which the structure of these adventitious masses differs little, if at all, from that of certain parts of healthy lymphatic glands, so that what is anatomically a kind of hypertrophy becomes, in its mode of extension, an actual new growth, and in its effect on the body, malignant or infective. Lymphatic structure may, however, show another peculiar mode of occurrence, which, nevertheless, we cannot but call hypertrophy. That is to say, the tissue, similar to that of lymphatic glands in other parts of the body, may also be increased.

These instances may suffice to show that hypertrophy may give rise to products which resemble the most pronounced form of new growth in their distinctness, or their generalisation, and even in their infectiveness.

I would further point out that tumour-production is like hypertrophy in other respects—viz., that both processes occur with a certain frequency in particular organs, as well as in particular tissues. This is, however, true only of organs that are subject to certain kinds of hypertrophy; it is not functional hypertrophy—that is to say, such as hypertrophy of the heart and muscles. It might be enough to say that the striated muscular tissue is one not at all disposed to new growth; but

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then the question would arise, Why should it not be so? This may, I think, be answered in two ways—viz., either by the principle stated just now, that expenditure of force is antagonistic to excessive growth, or that highly specialised tissues have little germinative power; but it is enough to see that, if hypertrophy is produced by functional activity (whatever the mechanism may be), it will be proportional to functional activity, and there will be no surplus for abnormal growth. But there is another form of enlargement, which I should like to call nutritive hypertrophy, were it not that, if the word hypertrophy be taken in its original sense, the expression is tautology. What I mean is, overgrowth, dependent on nutrition, not on function. Uncomplicated instances of this are very rare; but it is singular that the most extraordinary instance on record of hypertrophy of the heart is of this kind—viz., that in the museum of St. George's Hospital, which weighed over four pounds, and where no cause of obstruction was discernible; but it is more constantly the case in such hypertrophies, for instance, as that of the thyroid gland, a part which is frequently the seat of new growth, as distinguished from enlargement.

Also, it is most strikingly true in those parts which are subject to occasional or periodical enlargement, or in which the overgrowth is consequent on change, perhaps functional, in some other organ. Take, for instance, the uterus and mammary glands in women.

Whatever the mechanism may be, there is no doubt some mechanism by which these parts are especially disposed to abnormally rapid nutrition and activity of growth under particular circumstances. This machinery will, we know, from time to time, act blindly.

The uterus will enlarge around a tumour, or a mole, and finally contract upon it, as in parturition; and the mammæ will often enlarge sympathetically with various affections of the uterus, not necessarily with pregnancy. Can we doubt that some disordered action of this mechanism is an important factor in the production of tumours in these parts, and that the remarkable frequency of new growths in the mammæ and uterus is partly thus to be explained?

FROM ABROAD.

Medical Thermometry.

We transcribe the following short paper by Dr. Buckingham from the *Boston Medical and Surgical Journal* for January 1, believing it to contain a caution that may prove useful in the now general employment of the clinical thermometer:—

"It occurred to me that many of the statements in the treatise of Wunderlich on medical thermometry did not agree with observations on my own patients. The range of temperature with them, and also with persons apparently in good health, was much larger than he allowed. It seemed as if in my own records, taken early in the morning, *before food*, a much greater depression was observed than anything shown in his records. Temperature, so far as I can find out, is usually recorded *after* the morning meal, at noon, and *after* the evening meal. During the (thirty days of the) month of November I made the following personal observations. There were six observations in the day. As a rule, the first was while dressing in the morning; the second was immediately after breakfast; the third just before, and the fourth just after, dinner; the fifth and sixth before and after supper. The instrument used was Casella's 14,543. It was placed under the tongue, and retained there not less than six minutes. Anything out of the regular course was noticed in making out the record, a tabular view of which is given. On examining these observations one is much surprised to see that there is a variation between the lowest and highest points reached of four and four-tenths (4·4°) degrees, or from 95° to 99·4°. Take, however, the record made after eating, and the variation is only two and two-tenths (2·2°) degrees; while, taking the record before eating, sometimes when very much fatigued, and sometimes not at all so, and the variation is four and two-tenths (4·2°) degrees, or from 95° to 99·2°. The use of a hot bath in the morning is indicated in the record. Its effect on the morning of the 26th is well worth noticing, raising the temperature as it did a whole degree (from 96·2°, after broken rest, to 97·2°), and this effect increased another whole degree by the breakfast. The table, it seems to me, is well worth the while of medical men to look at. It may lead to more care in fixing the hours for the use of the thermometer (and in stating them, we may add, in their narrations); and if the experience of others should give similar results, the anxiety caused by unexplained variations might be diminished."

We have not space for the tabular record; but the accuracy of the above statements is easily tested by any reader on his own person. In connexion with this subject we may refer also to some interesting observations by M. Bourneville (*Gaz. des Hôp.*, March 7), on some of the causes of the irregularities of temperature observed in typhoid fever.

Treatment of Affections of the Joints by "Massage."

The *New York Medical Record*, January 1, contains an interesting account of the treatment of both acute and chronic affections of the joints by massage—*i.e.*, manipulations with the fingers or hands,—as practised of late in Denmark, and related in various numbers of the *Norsk Magazin*. The attention of the profession in that country was called to the subject by the great reputation attained by a Dutch physician, Dr. Mezger, through his successful treatment by this mode of the Danish Crown Prince. Dr. Mezger employs it both in acute and chronic synovitis of the various articulations. He excepts the hip-joint, partly owing to its deep situation and partly because its inflammation is so often dependent upon a primary osteitis. He divides his frictions into horizontal, which pass from side to side and vertical, passing from below upwards in the direction of the limb. They vary in force according to the effect to be produced, and are extended also over the adjacent unaffected tissues. By the horizontal frictions the skin is moved about over the fasciæ and ligaments, and the superficial vessels are acted upon partly by the direct application of mechanical force and partly by the indirect influence of the vaso-motor nerves. The local circulation of the blood is increased; and where there is a tendency to venous stagnation, the bluish colour is removed, the skin resuming its natural appearance. The vertical frictions promote the circulation in the venous and lymphatic vessels, and by a combination of these methods of manipulation absorption is increased. Massage also aids in breaking up and dispersing about any deposits or effusions of blood that may exist, and thus promotes their absorption. Moderate compression, it is true, does the same, but by acting upon the subcutaneous veins it brings an œdema of the parts below.

In acute and chronic *synovitis serosa*, vertical are more applicable than horizontal frictions, as in addition to the effusion we have to deal with infiltration and hyperæmia of the synovial and peri-synovial tissues, while the vascular network which surrounds the joint is dilated, and the circulation in the blood and lymphatic vessels is correspondingly sluggish. By the use of massage, absorption can be hastened, and the retarded circulation rendered free; that is, the disease can be cured while, in the meantime, a moderate use of the joints may be allowed. According to Mezger, the average time required for the treatment of acute synovitis is two weeks, and for a chronic case six weeks. He recommends both in acute and chronic cases a moderate use of the joint—only limited, indeed, by the pain this produces. Passive movements of the joints are also employed.

In several hundred cases treated by Dr. Mezger in this way during fourteen years, he has never seen any harm result from the moderate use of movements; and he is of opinion that many cases pass into the suppurative stage in consequence of the absolute rest which is enforced by the forms of treatment in common use. Dr. Kiær, writing after close observation of Mezger's mode of treatment, considers that his great merit lies in his having separated massage from the therapeutic gymnastics, of which it formed a part, and, by a thorough investigation of its influence on disease, raised it into a principal means in the treatment of diseases of the joints. He adds that no one who has practically observed it can deny that his system of manipulation constitutes one of the most powerful remedies for combating synovitis, whether acute, chronic, serous, or hyperplastic.

Dr. Winge, at a meeting of the Copenhagen Medical Society, gave an account of Dr. Mezger's method of treatment as observed during a three weeks' visit to Bonn, where that practitioner now resides. He describes it as essentially consisting in kneading, rolling, percussing, and rubbing the parts. When these are hairy they are first shaved, or the manipulations cause irritation. The operator sits on a low stool in front of the patient, and begins with anointing the part with

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perfumed lard. He rubs strongly wherever indurations, infiltrations, or effusions have to be dealt with, and follows from below upwards the course of the lymphatics. When the knee is the part, he works across the joint with the fingers of one hand, on both sides, below the patella, pressing inwards with more or less force; while the fingers of the other hand work in the same manner upwards along both sides of the patella, over the capsular ligament, or any ligament which is felt to be swollen. This process is continued from three to five minutes. He then grasps the joint with his right hand, and, pressing firmly, rubs upwards over the patella as high as the superior insertion of the investing ligaments. This is repeated a number of times, according to the circumstances of the case, the applications being made once or twice a day.

In *synovitis hyperplastica*, both horizontal and vertical frictions are employed, especially over those parts where the peri-synovial tissue is felt to be much thickened. The more acute the inflammatory process, the more gentle must the pressure be, as also is the case when chronic synovitis takes on a subacute form. In this form of synovitis there is hyperplasia of areolar tissue in the synovial membrane and the peri-synovial tissues, together with a more or less plentiful serous exudation. At the same time there is a development, in greater or less abundance, of newly formed vessels, and perhaps also of new formations in the system of canals from which the lymphatics take their origin. The combined use of both varieties of frictions in such cases produces, in the first place, an effect upon the peri-articular tissues, and diminishes the tumefaction. Not infrequently this alone is sufficient to cause the subsidence of the inflammatory process in the synovial membrane, and the disease is cured. But usually more protracted treatment is necessary, the peri-synovial tissues being gradually restored to their normal state, although occasionally remaining thickened. Or, after the effusion has been absorbed, it is found that the newly formed areolar tissue has become cicatricial, thickening the peri-synovial tissues and the membrane, and by its contraction diminishing the calibre of the newly formed vessels, so that their walls contract and atrophy. The dilated vessels, under the manipulations, become more or less completely emptied, and their walls are thus enabled to contract by their own elasticity. At first, however, they dilate again between the applications of the treatment, but gradually regain their proper tone. By the stronger frictions the thinner vessels are ruptured, and blood is effused into the cellular tissue, where it is absorbed, and then the vessels atrophy. Where care is taken to prevent the effusion of blood becoming excessive, no bad results ever follow.

In *synovitis pannosa*, the cartilages of the joint present a vascular development, the vessels chiefly originating from the newly formed vessels in that portion of the articular tissues which is connective between the synovial membrane and the surfaces of the joint. If we can cause the last-named vessels to atrophy, we may reasonably expect those of the surfaces of the joints which are in connexion with them to do so likewise. It is therefore important in employing massage in these cases to direct attention to the portions of tissue which pass across from one joint-surface to the other. Atrophy of the pannous tissue may also be promoted by active and passive movements of the joint. In the fœtal state a physiological pannus is developed at those points where, during the condition of rest, the joint-surfaces do not come into contact. So, too, a pathological pannus is chiefly developed on those parts of the synovial surface which, in the forced condition of rest, do not come into contact. By motion the pannous surfaces are brought together, and the newly-formed vessels atrophy.

In *chronic rheumatic inflammation* of the joints, accompanied by stiffness and contraction, Dr. Mezger gives a tolerably good prognosis when the soft parts alone are involved. He never uses chloroform in such cases, because he does not employ very forcible manipulations or movements. He often ruptures pseudo-membranous formations, but he carefully avoids exciting inflammatory reaction, which might result in stronger adhesions than before existed. Rheumatic distortions of the fingers, when treated by this method, are sometimes very painful. The wrist is less so. The ankle is apt to be more painful under treatment than the knee, but much less so than the fingers and wrist.

Mastoid Inflammation.

Dr. Orne Green, Lecturer on Otology in Harvard University, narrated three cases of this to the Boston Society for Medical Observation (reported in the *Journal*, January 22), and the general observations which he subsequently made seem to us of considerable interest:—

"Mastoid inflammation, although never primary, is now very properly described as a distinct disease, as it is always serious, and not uncommonly fatal, from involving the brain. The mastoid cells are but a part of the tympanic cavity, lined like the rest of the cavity, by a delicate mucous membrane, which is in such close connexion with the periosteum that the two cannot be separated or even distinguished. An inflammation of the tympanum proper usually implies also an inflammation of the mastoid cells of a greater or less intensity; and if this inflammation is so severe as to cause an abundant secretion of pus, an outlet for the matter from the cells can only occur by its breaking through the bone either externally or internally. In the majority of cases the inflammation subsides, and the pus is absorbed; but in some cases the inflammation is too intense for this, and then nature attempts to form an outlet, as seen in the first and third cases.

"An examination of macerated bones shows, on the outward surface of the mastoid, numerous openings, which serve for the passage of bloodvessels into the bone, and some of these are undoubtedly in communication with the circulation of the mucous membrane. Along these vessels the inflammation is transmitted from within to the external periosteum, and, as pus is only formed in the latter stages of an inflammation, the first pus formed here will be next the bone, where the inflammation is oldest. The pus having formed on the external surface of the bone, it meets with very firm obstacles to its reaching the skin, for the whole mastoid serves for the attachment of the sterno-mastoid muscle, and the pus must work its way through this very firm fibrous tissue before coming to the subcutaneous tissue. This accounts for the very extensive burrowing of the pus in the first case for three weeks without its having found an outlet. In examining a large number of temporal bones, it will be seen that the thickness and consistency of the mastoid vary very much, and also that in some the openings on the external surface are much larger and more numerous than in others. In some bones it is impossible to see any of these foramina. Thus another obstacle exists here to the exit of the pus, for while, in the cases just spoken of, the bone becomes inflamed, softened, and disintegrated around the opening through which the inflamed vessel or vessels pass, in the latter cases a new opening must be formed, a longer time is required, and the patient is consequently longer exposed to the risks from retained pus. In the second case, it is probable that the unusual thickness of the bone (one-third of an inch), and the absence or very small size of these foramina, prevented any external inflammation; and it is also probable that this is the explanation of those cases in which, after death, the inner wall of the cells next the brain is found carious, while the external wall is healthy. The operation of trephining under these circumstances is, I believe, new; but the condition of the patient was so critical that I had no hesitation in advising it. In the first case I have no doubt that weeks of suffering and danger would have been avoided if consent could have been obtained to a similar operation."

In recent mastoid inflammation we may generally hope for resolution being obtained by the local abstraction of blood and treating the original cause—the inflammation of the tympanum. Two to four leeches over the mastoid, with warm fomentations, will usually suffice, any pus the tympanum may contain being evacuated. As a general rule, the membrana tympani spontaneously ruptures in a short time; but when this is not the case, it should be punctured, in order to give issue to the pus. Warm-water douches and the air-douche must then be employed. If there be, however, any external periostitis, a free incision should be made down to the bone, in order to evacuate pus; and if this be not yet formed, good will still be done by relieving the tension of the parts and by the bleeding that ensues.

"At the time of the incision the bone should be examined to see if any fistula exists in it, and, if such is found, it should be exposed and thoroughly syringed out. The place at which this fistula commonly forms is of considerable importance in aiding us in our search, and also in deciding where the bone ought to be trephined, in case such an operation becomes necessary. In all the cases which I have seen, this fistula has been nearly in the middle of the mastoid, never at the extreme tip, nor at the extreme upper part, although in both these places the bone is very thin. While the fistula is being sought, the bone should be tested, and it will be fre-

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quently found to be so softened that a probe, director, or even a knife can be thrust through into the cells, thus evacuating the pus. If the bone around the fistula is softened, the opening should be enlarged till healthy bone is reached. The first case is interesting, as showing how necessary the removal of the softened bone is for a cure, for here the disintegrated bone, although so fine as to escape observation with a probe, kept the wound open for several months, while the removal of the affected bone with a gouge resulted in a cure within ten days. The second case shows how long the mastoid cells may be intensely inflamed without affecting the bone; and in these cases the operation of trephining is especially indicated, as the pus, if meeting with unusual obstacles to its escape externally, is more apt to affect the outer walls of the cells, and cause fatal disease of the brain."

At a discussion which took place at the New York Pathological Society concerning a case in which the mastoid was perforated (*Medical Record*, January 1), Dr. Noyes stated that he had found the pin of the trephine a convenient instrument for effecting perforation. Its shape prevents its penetrating farther than necessary, while its edges cut sufficiently well, and the opening made is large. Dr. Crosby related three cases in which he found a gimlet answer the purpose admirably. Dr. Noyes considered that the point of this might penetrate too far, and stated that on an examination being made of seven skulls, with reference to the relation of the lateral sinus to the mastoid process, it had been discovered in all of them that there existed such a thinness of the bony plate, and such a sharpness in the curve of the sinus, that it would be impossible to operate with a sharp instrument without great danger of penetrating too far.

REVIEWS.

Introductory Address delivered at the Opening of the Medical Classes of Anderson's University, Session 1873-74. By Dr. McCall Anderson, Professor of Practice of Medicine, Dean of the Medical School, etc. Glasgow: James Macklehose, 61, St. Vincent-street. 1874.

The above is a most earnest and direct appeal (addressed more especially to those students who had just joined the University), well worth the attention of every gentleman about to take up the study of medicine as a profession, and containing much sound and practical advice, offered (as Dr. McCall Anderson says) by one who has been all through each stage himself, and is ready to sympathise with the difficulties and struggles of youth.

The question of the propriety of admitting females to study medicine is treated of in this address in a most temperate and liberal spirit, and the suggestion is thrown out that if ladies are determined to join the ranks of the medical profession, the better plan would be for them to collect funds for opening a hospital and endowing a school of medicine in one of our large cities, to be devoted exclusively to their benefit—a course which should not be difficult of execution if it be really true that there is such an ardent desire amongst women to be treated medically by their own sex, as has been stated in certain quarters.

On the Ventilation of Schools, Hospitals, Law Courts, and other Public Buildings. By George Ross, M.D., Medical Officer of Health for St. Giles's District, etc. London: W. H. and L. Collingridge, Aldersgate-street. 1874.

This little pamphlet, which the author states to be the substance of a paper read by him before the Association of Medical Officers of Health in November last, seeks to deal with the much-vexed question of ventilation. With a view of ascertaining the most recent improvements for warming and ventilating large buildings, Dr. Ross inspected a newly built school-house in a central London district, the new Lambeth Workhouse, and the new hospital of St. Thomas's, but in each case the result is stated to have been unsatisfactory. Without, however, impeaching the weight of the evidence collected in this small treatise, we cannot quite go the length of endorsing all the views put forward by the author. That ventilation carefully planned and ably carried out is required in all public buildings we readily admit; but the theories for obtaining this are so numerous, and when carried out so frequently break down, that we hesitate to pin our faith to any one until long and severe trial has confirmed its excellence.

Dr. Ross claims to have propounded the principle of "cottage hospitals" so far back as the year 1858, being dissatisfied with the excessive mortality occurring in our large hospitals, traceable, in his opinion, to defective means of ventilation; and he professes himself still anxious, for similar reasons, to see the establishment in London of a great "Metropolitan Cottage Hospital."

PROVINCIAL CORRESPONDENCE.

BIRMINGHAM.

March 11.

Sanitary Matters at Balsall Heath—Deaths of Messrs. Dodson and Swain—New Physicianship at the General Hospital—Vacant Chair of Medical Jurisprudence—Cases at General Hospital—Electricity at General Hospital—Hospital Saturday.

The inspection of the sanitary condition of Balsall Heath, a suburb of Birmingham, at the commencement of 1873 led to the appointment of a medical officer of health. We notice in his first yearly report, which is an able document, that the birth-rate is 45, and the death-rate 18·27 per 1000—a remarkable disparity, but on the right side, in the bill of health.

The outbreak of typhoid which caused so much alarm a short time since, and to which we alluded in a former letter, has rapidly subsided, the mortality from this disease for the past year being only nine. The deaths in this district generally from zymotic causes were about 4·5 per 1000, to which scarlet fever contributed nearly one-half the number. The inhabitants of this neighbourhood are to be congratulated on its highly satisfactory sanitary state, which is chiefly due to the great exertions of its active and zealous officer. The disparity between the births and vaccinations, numbering respectively 690 and 288, was commented on by the health officer, who suggested that the system of vaccination should be altered; this has been quickly done, and the result is the establishment of a central station, where the operation is performed weekly. The promptitude with which this beneficial change has been made reflects great credit on the Guardians of the Union.

Death has again been busy in our ranks, removing the young and old indiscriminately. Poor Dodson and Swain have both fallen victims to the fell destroyer. The one in the heyday of manhood—a distinguished student of the General Hospital and Queen's College, a first class man at the last M.D. examination at the London University, with a seemingly glorious and unclouded career before him—was cut off in the prime of life by acute tubercle, after a very short illness, brought on and aggravated, no doubt, by the incessant hard work he did, and which was characteristic of him. Mr. Swain had been in practice many years, and was a popular general practitioner; he was also Lecturer on Medical Jurisprudence at the Queen's College, and won a host of friends by his geniality and kindness of heart. His death causes a vacancy in the chair of Medical Jurisprudence in Queen's College, which it is thought will fall into the hands of Mr. Wilders, who now occupies the chair of Materia Medica.

Another physicianship has been created at the General Hospital, and the possessor of it is to be Dr. Rickards, who has been resident medical officer at the institution some years, obtaining in that capacity the respect and confidence of the medical staff. At this hospital Dr. Foster has used croton chloral with good results in facial neuralgia, especially in old patients. He has also tried extract of valerian in diabetes mellitus, which he found to have a remarkable power of lessening the amount of water, of diminishing the formation of urea, and improving general nutrition. The sugar, although smaller in quantity, was not so much affected as the water.

On a recent visit to the General Hospital, we were shown the new electrical room. It is most complete in magnetic and electrical apparatus, which are used daily for the relief of various forms of nervous disease, with very beneficial results.

Hospital Saturday is near at hand, is growing in public favour, is well "committee'd," and is likely to yield a rich golden harvest.

The Guardians of Lambeth have resolved to build a new infirmary, and not to attempt to adopt for that purpose any of the old buildings belonging to the parish.

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REPORTS OF SOCIETIES.

ASSOCIATION OF MEDICAL OFFICERS OF HEALTH.

SATURDAY, FEBRUARY 21.

Dr. HARDWICKE, Vice-President, in the Chair.

DR. TRIPE reported to the Society that he had recently obtained convictions in two cases of fraudulently mixing tallow and water with butter. He had made four analyses of one specimen, and found that the amount of water forced into the butter varied from 18·5 to 21·4 per cent. In the second specimen, besides a quantity of tallow mixed with the butter, there was 6 per cent. extra of water. A very useful test for the adulteration of butter was to heat it up to 220°, when butter sophisticated with tallow would come out nearly white and hard, whereas pure butter would still retain the properties and taste of the genuine article.

The SECRETARY (Dr. Vinen) next stated that he had received a communication from the Chamber of Commerce requesting the Association to fix a standard for pure milk. After some discussion it was agreed to form a committee, consisting of the following members:—Drs. Stevenson, Tidy, Hardwicke, Tripe, Whitmore, and Bernays, to consider the propriety of having a fixed standard for milk.

Mr. Bland and Mr. Jacob were unanimously elected members of the Association.

Mr. Edwin Child, of New Maldon and Coombe, and Mr. Talbot, successor to Dr. Woodford, of Poplar and Bow, were proposed and seconded as metropolitan members.

Dr. DUDFIELD proposed, and Dr. TRIPE seconded, the following resolution, which was carried unanimously:—"That it be referred to the Council to consider as to the desirability of the statistical returns in the annual reports of the metropolitan medical officers of health being based upon an uniform system; and to frame suggestions for carrying out such a system, if found to be desirable."

Dr. Dudfield's motion on noxious trades and slaughter-houses was postponed till the end of March, so that the discussion might take place before the time that Parliament considered the subject.

Dr. TRIPE then commenced the reading of his paper "On Density of Population, and other Causes which affect the Rate of Mortality in the Metropolis," of which the following is an abstract:—I have (said Dr. Tripe) brought the tables on which this paper is based before the Association in the hope of inducing the medical officers of health for this metropolis to adopt a uniform system of calculating the death-rate of each district. At present some exclude all the deaths in hospitals in their districts, but include the population thereof, and, without making any correction for deaths in metropolitan hospitals, they compare the deaths of their districts with the figures published by the Registrar-General, which are corrected for these deaths. In calculating the rate for my own district, I eliminate the population and deaths in the City of London Union, the Small-pox and Fever Hospitals, and the German Hospital, and having compared the deaths in London with the calculated population for the middle of the year, I add on the proportion of deaths in hospitals for all London. It is, of course, open to discussion whether or not I add too much or too little to the death-rate; but for the purpose of comparing with the Registrar-General's figures I do not know a better plan. There is, however, one correction not made by the Registrar-General, which considerably vitiates his figures—viz., that he does not allow for deaths in extraneous workhouses. (By "extraneous workhouses," Dr. Tripe explained that he meant workhouses erected in other parishes than those from which the paupers are derived.) As will be seen by Table 1 before you, this alters the death-rate for some districts considerably, especially for the City of London. As, however, the plan of deducting the deaths and population in hospitals in each district, and then spreading them over all London, might lead to error in these tables without affording any corresponding benefit, I eliminated them altogether, as well as those in extraneous workhouses, restoring the latter to the districts to which the workhouses belong. Thus, for the City of London I restored 2876 deaths which happened in the City workhouses as well as the population, and deducted above 6000 deaths which were registered from St. Bartholomew's and the City of London Lying-in Hospitals from the ten years' mortality of the City. Again, in Islington I had to diminish the decennial deaths by nearly 7000, as the Small-pox and Fever Hospitals, as well as the Northern and West London Hospitals, are situated in that district. It was also necessary to deduct the population and deaths in the extraneous workhouses situated in Mile-end, Poplar, Hackney, Stepney, Chelsea, and Shoreditch, and restore them to their own districts. As regards the calculations for the birth-rates, I have eliminated the population and deaths in hospitals only, as I could not ascertain the number of births during the ten years in the various workhouses, and therefore allowed them to remain in the districts where they were registered. I had another reason for bringing these tables before you—viz., that the death-rate of a district is not *per se* to be taken as proof of its comparative salubrity or unhealthiness. This is of course well known to most present, but it seems to be frequently forgotten in the annual reports. I shall, therefore, consider the number of persons to an acre, and attempt to judge of the relative wealth of a district by the number of servants to the whole population. This is certainly not absolute evidence of wealth; but we are assuredly justified in assuming that the inhabitants of those districts in which the largest percentages of servants are to be found, are those in which the largest number of persons possessing the comforts of life will be met with. The mortality of a district will also vary with the relative number of children under five years old to the adult population, and according to the energy with which sanitary measures are carried out. It is therefore evident that, as servants are mostly in the prime of life and are generally removed to a hospital or their own homes when taken ill, the death-rate of those districts which have the largest number of servants should be smaller than those having the smallest number, even if in other respects they are equal. If we divide the twenty-eight metropolitan districts into two sections—one having the lowest, and the other the highest death-rates—we ascertain that the fourteen having the lowest rates vary between 152 and 232 deaths per 10,000 inhabitants; whilst the fourteen having the highest rates oscillate between 234 and 286 per 10,000 persons. This is an enormous variation, and becomes more conspicuous when we add together the sums of the fourteen lowest, and divide by fourteen so as to obtain an average, which is only 202 per 10,000 inhabitants, against a mean of 252 per 10,000 for the fourteen districts having the highest mortality. The death-rates for these districts do not correspond with those published by the Registrar-General for the ten years 1861-70 in the annual summary for 1872. The figures for those districts in which there are not any hospitals or extraneous workhouses correspond, or do not vary more than 0·1 per cent., but they differ very considerably for other districts. Thus the percentages for Lewisham, Wandsworth, Woolwich, Lambeth, Camberwell, St. George's-in-the-East, and St. Giles's, absolutely correspond, and that for Hampstead varies only 0·1 per cent.; whilst in Hackney, where there were 1211 deaths in the City of London Union, and 751 in the German Hospital, or nearly 10 per cent. for the ten years, the variation reached 17 per 10,000 inhabitants, the Registrar-General's calculations showing the death-rate to be 210 per 10,000, and mine only 193. For Poplar the variation is much greater, the Registrar-General's calculation being 270, and mine 245 per 10,000 inhabitants, which, as my table shows, is caused by the 2784 deaths in the City of London, the Stepney Union being included in the Poplar mortality. On the other hand, the rate of mortality for Stepney is calculated at too low a figure—viz., 248, instead of 264 deaths per 10,000 residents—which arises, as my table shows, from the 1102 deaths in the Stepney Workhouse (which is situated in the Poplar district) being included in the Poplar mortality. In Holborn, also, the calculated number of 255 deaths per 10,000 inhabitants is too low, and should be 262, in consequence of the deaths of St. Luke's, Holborn Workhouse being included in Shoreditch parish. The difference as regards Chelsea is greater still, the Registrar-General returning the mortality at 252 per 10,000 persons, whilst my figures show it to be only 239, in consequence of the St. George's Workhouse being situated therein. I do not make these remarks in any way adversely to the Registrar-General, as his reports are, as far as I have discussed them, singularly free from error, except in this particular point. Now, when we consider that servants are generally in the prime of life, and rarely die in service at the houses of their masters—for when taken ill

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they are usually sent to a hospital or workhouse, or to their friends,—it is evident that a large percentage of servants must be coincident with a small death-rate, unless unusual circumstances are in operation to produce an excessive mortality amongst the population. When we also consider that those who have one or more servants have sufficient necessaries, and generally many of the comforts of life, it is evident that the districts in which there is the largest proportion of servants should be those in which the death-rates are below the average, especially amongst young children. A mere glance at the table shows this to be the truth, and a closer examination will show that the connexion is nearer between this than between overcrowding and the mortality of a district. Thus, if we divide the twenty-eight districts into two columns, arranging them in order of the percentage of servants to population, we find that the mean death-rate was 208 per 10,000 persons in those districts in which the number of servants was above the average; whilst that of the fourteen districts having the fewest servants was no less than 249 per 10,000 inhabitants. The chief exceptions to the rule are St. Giles on the one side and Woolwich on the other, which we might have expected when we look to the great difference in the density of the population, and the general condition of the population. Thus, Woolwich is occupied to a great extent by artisans and their families receiving fair wages, and living in the fresh air—there being ten persons only to an acre; whilst in St. Giles there are no less than 219 persons to an acre, very many of whom are exceedingly poor, and by no means careful in their manner of life; indeed, I believe that the excessive mortality of Whitechapel arises from the bad habits of the reckless portions of the population, quite as much as from the excessive overcrowding and poverty. I mention Whitechapel, as it stands comparatively high in the list as regards the number of domestic servants, whilst its death-rate is the greatest but one in the whole metropolis. I desire to draw your attention (although it is not included in the title of my paper) to the proportion of births to deaths. The figures are corrected for deaths in hospitals only, as I could not obtain the number of births registered in the workhouses, and therefore allowed all other deaths to remain on the roll of the district where they were first placed. As the comparison has been made of the births to deaths, and not of births to population, we shall find that the largest proportions of births belong to those districts in which the death-rate is smallest, and *vice versâ*. The largest proportion—viz., 197—was registered in Lewisham, the next (187) in Woolwich, and the next (177) in Islington. Hampstead shows only 166, and Hackney 163, which may partly be accounted for by the number of servants residing in these districts. On the other hand, there were only 124 births to each 100 deaths in Whitechapel, 125 in St. Giles, 125 in London City, 136 in Stepney, and 137 in St. George's-in-the-East. The total for the five highest is 900, or at the rate of 180 births to each 100 deaths, and of the five lowest 647, or at the rate of 129 against each 100 deaths. These figures are very satisfactory as regards the general sanitary state of the population of London, for in no case was the birth-rate below 124 births to each 100 deaths, which will compare very favourably with any other large metropolis. It may be said that there are better means of testing the relative wealth of districts than by the number of servants proportionately kept therein. I am not prepared to assert that there are not, but I think for the purposes of our present inquiry no other test is equally suitable or so reliable. Thus, if I had taken the rateable value of a district, and divided it by the number of inhabited houses, I should have obtained most unreliable data on which to base my inquiry. Thus, on examining the properties included in the rateable value of a district, I found railways, canals, gasworks, theatres, markets, waterworks, and other public buildings and works, such as ironworks, premises for shipbuilding, wharves, banks, and warehouses—some of enormous size, such as the Pantechnicon, lately burned down,—so that I gave up that idea. Besides, even if the average rental of dwelling-houses could have been readily ascertained, I think we should have still been as far off as ever. It would be manifestly unfair to contrast the value for sanitary purposes of a house in Cornhill, Cheapside, or Regent-street, with one in Hampstead, Hackney, Camberwell, or other outlying districts. A comparison of the number of persons receiving Poor-law relief in a district would probably afford a very good test, but then the averages should be obtained for as many years as the table includes, which I was not able to get. I may say that, so far as I could ascertain, the proportion of those receiving Poor-law relief was smallest in Hampstead, and also unusually small in Lewisham, Wandsworth, Kensington, Islington, and Camberwell, and that the death-rates of these six varied only between 152 and 214 per 10,000 inhabitants, with a mean for the whole of 187 per 10,000. When, however, we consider that all these are included in the most favoured districts—that is to say, those having less than the average density of population, and an excess of servants,—we cannot be surprised at their low death-rate when the comparatively few paupers they also have is taken into consideration.

In the discussion which ensued upon Dr. Tripe's paper, Dr. DUDFIELD stated that it was not always the case that the Registrar-General recorded deaths occurring in public institutions belonging to, but situated out of, the district, as deaths occurring in the extraneous district. In the Workhouse Infirmary of St. Margaret's, Westminster, and St. George's, Hanover-square, situated in the parish of Kensington, the deaths are all registered in Westminster, although the paupers have died at Kensington.

Dr. GIBBON, of the Holborn District, considered that the death-rate varies considerably with the density of population. In one very poor and crowded part of his district there were 410 deaths per 1000. Here the inhabitants were for the most part Italians, Irish, and costermongers, yet the death-rate was not so great as in other less densely populated districts. He attributed it to several causes, one of them being that this class of persons live very much in the open air. The Jews, although very dirty in their habits, and having the character of herding together very much, yet are exempt to a very considerable extent from diseases which decimate other classes. Mr. Jonathan Hutchinson attributes their exemption from syphilis to the universal practice of circumcision. He says that an uncircumcised person is six times more likely to take syphilis than a circumcised under similar circumstances. The Jews also eat a great deal of fat meat, and phthisis is very rare among the Jewish community. Dr. Gibbon had only seen one case of phthisis in a Jew. Dr. Gibbon was therefore of opinion that density of population is no guide to the death-rate, but that mode of life, parentage, and morality were the chief factors affecting the mortality of densely populated districts.

Dr. LIDDLE considered that the elevation of the district ought to be taken into account, and showed that there must be great fallacy in reckoning the population according to acreage. In the eastern parts of London a considerable portion of the district is covered with water or uninhabited buildings—*i.e.*, the docks and warehouses,—so that an estimate according to acreage is of no value. Dr. Liddle considered that temperance was the principal cause of low mortality among the Jews. He had found that where the parents are intemperate, the children mostly die young. Again, badly constructed houses contributed largely to increase the mortality. Dr. Liddle considers that registration of births should be made compulsory, and no fee exacted. Many births are not registered, especially of those children born during the hopping season, on account of the fee required. Then, again, enforced celibacy has a considerable influence in diminishing the mortality of a portion of a district. For instance, at the Tower there are 500 soldiers, at another part of the East-end there are 700 sailors; both these must be very disturbing elements in the birth- and death-rate calculations of a district.

Dr. TIDY had been surprised at the comparative healthiness of the Jews. Two courts in his district are inhabited almost entirely by Jews, and their death-rate is very low. The Jews as a body don't drink; and they have another peculiarity, that many of them are left-handed. The Jews are also very particular about their diet.

Dr. HARDWICKE pointed out that the death-rate is not more than 8 per 1000 in fashionable quarters, such as Westbourne-terrace. Not only are the inhabitants frequently out of town, but the servants when ill are sent away to hospitals.

Dr. TRIPE replied to the various criticisms by saying that he had not referred to construction of houses because he had no data to work upon, and there was no possibility of making any allowance for non-registration of births.

THE DUCHESS OF EDINBURGH has graciously consented to become a patroness of the annual ball in aid of the funds of University College Hospital, to be held at Willis's Rooms on Thursday, May 7.

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OBITUARY.

FORBES WINSLOW, M.D., F.R.C.P. Edin., D.C.L., etc.

It may be asserted with perfect truth that no one of the learned professions owes so little in the successful career of its members to mere "patronage" as that of medicine. The reason is obvious. The prizes in the gift of the Crown, or of colleges or associations, are few, and these generally are empty honours unattended by emolument. The Crown can confer baronetcies and knighthoods, the colleges and associations may give presidentships and honorary degrees; but we have no chancellorships or judicial appointments as have the lawyers, no bishoprics or archdeaconries as have the clergy. We do not mean to assert that great lawyers are not, in the main, appointed to high posts in the law, or that learned and good men are not selected to occupy the highest places in the Church. But when so appointed in either of these professions, the receivers of promotion are handsomely and even munificently provided for. It is not an absolute necessity, however, that great talents should be necessary for great "success." It is altogether different with us: the mere honour is often anything but of service to us. We require for legitimate success the possession of at least ordinary ability, and of unceasing industry and perseverance. Without these the practitioners of medicine soon find their level. We record to-day the death of a worthy member of our profession, who may be justly styled "a self-made man." Indeed, we doubt whether, in some respects, a more remarkable career than that of Forbes Winslow is to be found in the annals of medicine. With talents certainly not much beyond the average, and with acquirements neither extensive nor profound, he raised himself to high distinction by unremitting industry, by self-reliance, and by consummate tact. To these may be added a generous and discriminating support to those who in any way befriended him. He never allowed a service rendered to him by another to pass unregarded or unrewarded. This was a principle he acted upon during his long and varied professional life.

Forbes Winslow was the son of Captain Thomas Winslow, and was born in London in August, 1810. He received his preliminary education at a private school near London, in Scotland, and at Manchester, at which places his father was stationed at different periods with his regiment. He commenced his medical studies in London, at the Gerrard-street School of Medicine, and, we believe, was a pupil at the Middlesex Hospital. As soon as he was duly qualified, he commenced general practice in an open surgery in Hertford-street, Mayfair. With a wife and a young family, and without means to support them adequately, he became connected with the *Times* newspaper as Parliamentary reporter, and attended the gallery of the House of Commons in that capacity for many years. It is difficult for anyone not acquainted with the subject to imagine the "wear and tear" of such employment, and more especially when it is combined with professional duties in the day. Even after he had retired from general practice, had taken his degree in medicine, and removed to a private house in Guilford-street, Russell-square, he continued for some time to report for the *Times*. It was no uncommon thing for him to leave the *Times* office at seven or eight in the morning, take a hasty breakfast, and be ready to receive patients by ten o'clock. He managed to steal two or three hours of sleep in the course of the day, but was always ready, and apparently "fresh," to take his "turn" in the gallery when he was required. The labours, physical and mental, which he then underwent would have undermined a constitution less sturdy and healthy than his. But he was made of the right stuff for work, and possessed a cheerfulness of spirit, a hopefulness and self-reliance, which carried him through. To his connexion with the *Times* may, we think, be attributed his readiness and accuracy as a writer in after life; and to this he owed much of his success. Even when a student he paid much attention to the subject of insanity, and as early as 1832 read a paper before the Westminster Medical Society "On Phrenology in connexion with the Study of Mental Aberration." This was subsequently published in the form of a pamphlet, and attracted considerable attention. On leaving Guilford-street, he took a house in Cavendish-square, and, having become proprietor of two asylums at Hammersmith, finally launched himself into practice as what it is now the fashion to call an "alienist."

From this time his career was one of continued success. But he was as active and industrious as ever, and continued to within a short time of his death a busy practitioner and an author of so many works, chiefly relating to insanity, that it is difficult to understand how he found time for such a multiplicity of writings. Amongst the works he published in the period alluded to was one "On the Incubation of Insanity"—a somewhat jejune and imperfect production, but evidently the foreshadowing of his greater and more elaborate work on "Obscure Diseases of the Brain and Mind." 2. "Physics and Physicians," an amusing gossiping work in two volumes, which had a considerable sale. 3. "The Anatomy of Suicide." The object of the author in this book was to show that suicide was never committed by a person in a sound state of mind, and that the first overt act of insanity might be the one of self-destruction—a doctrine which he ever afterwards entertained, and which now receives general, if not universal, assent. 4. "Health of Body and Mind." 5. "Plea of Insanity in Criminal Cases." 6. "Act for the Better Regulation of the Care of the Insane, with Notes." 7. "Synopsis of the Lunacy Act." 8. "Lettsomian Lectures on Insanity." 9. "Obscure Diseases of the Brain and Mind." This was a very popular work, and went through several editions. 10. "Uncontrollable Drunkenness considered as a form of Mental Disorder." He also published a curious little book entitled—11. "Light, its Influence on Life and Health"; but this was scarcely worthy of his pen, and fell stillborn from the press. He edited for many years the *Psychological Journal*, a work of great usefulness and merit.

The tendency of all Dr. Winslow's writings was to ameliorate and improve the condition of the insane, particularly in regard to their treatment when under restraint. That he succeeded in his object few will deny.

For many years Dr. Winslow occupied a very prominent position as an expert witness in courts of law in which the question of insanity was raised in criminal and civil cases. He invariably gave his testimony on broad and humane principles. Many thought he carried his humanitarian views too far, and allowed the guilty to escape. But if he erred, it was on the side of mercy. He was a firm upholder of what has been called "moral insanity," and followed in the footsteps of Esquirol and Conolly. But Winslow was rarely mistaken. In the memorable case of Townley he gave evidence to show that the prisoner was of unsound mind; but he was overruled by other witnesses and the judge, and Townley was found guilty and sentenced to imprisonment for life. But Dr. Winslow retained his opinion. This was after a time shown to be correct, the prisoner having committed suicide in the prison.

Strange, however, as it appears, after Townley's trial the plea of insanity in criminal cases seemed to lose its importance, and many were found guilty who there was some reason to believe were of unsound mind. Though usually a most successful witness, we cannot say we approved of Winslow's mode of giving evidence; it was somewhat too prolix and wordy—somewhat too didactic.

Dr. Winslow was M.D. of King's College, Aberdeen; Fellow of the Royal College of Physicians, Edinburgh; Member of the Royal Colleges of Physicians and Surgeons, England; and Honorary D.C.L. of Oxford.

In person Dr. Winslow was slightly below the middle height; firmly and compactly built. He had a good head, and a pleasant and cheerful face. He abounded in anecdote and repartee. For some time past he had been in ill-health, and had been staying at Brighton, where he died of Bright's disease on the 3rd inst.

His funeral took place on Tuesday last. He was buried in the yard of Epping old church, of which parish his eldest son, Forbes, is vicar. Many of his professional friends were present to pay a last tribute to one they loved and respected.

Dr. Winslow was a kind-hearted and generous man. No one who really required charitable aid ever applied to him in vain. He was the promoter of subscriptions for good and benevolent purposes. He raised a fund to pay the law expenses and damages in an action at law to which one of our *confrères* had been, he thought, unjustly subjected. His last public act of charity was promoting and heading a subscription for the relief of a once prosperous and energetic surgeon who had been prostrated by anxiety and disease, and had been left penniless. A considerable sum was raised, and the last days of its recipient were thereby made comfortable and even happy. In all the relations of private life Dr. Winslow was exemplary. He has left a wide circle of acquaintances and friends who will mourn their loss.

J. F. C.

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ANDREW DODSON, M.B., M.R.C.S.,

LATE House-Surgeon to the Children's Hospital, Birmingham, died on the 24th ult., aged twenty-two. He was a student of Queen's College in that town until admitted a Member of the Royal College of Surgeons, had gained several medals and prizes, and had just entered upon his first public appointment when seized by his fatal illness.

MEDICAL NEWS.

APOTHECARIES' HALL.—The following gentlemen passed their examination in the Science and Practice of Medicine, and received Certificates to practise, on Thursday, March 5:—

Crossman, John, St. Thomas's Hospital.
Robinson, Richard Edward, Leeds.

APPOINTMENTS.

*** The Editor will thank gentlemen to forward to the Publishing-office, as early as possible, information as to any new Appointments that take place.

BUSHELL, S. W., M.D., L.R.C.P. Lond.—Teacher of Botany and Zoology at the Royal Medical Benevolent College, Epsom.

DAVIES, W. BOWEN, L.R.C.P. Lond., M.R.C.S. Eng., L.A.H.—Medical Officer to the Nantmel District of Rhayader Union.

DREW, CHARLES WALLACE, M.R.C.S., Eng.—House-Surgeon to the North Devon Infirmary, Barnstaple, *vice* W. A. Budd, L.R.C.P. Edin., M.R.C.S. Eng., resigned.

LUCAS, R. CLEMENT, B.T., M.B. Lond., F.R.C.S.—Surgeon to the Evelina Hospital for Sick Children.

PRIOR, CHARLES E., M.D., F.R.C.S.—Medical Officer of Health for Biggleswade.

PRITCHARD, JAMES CHARLES, L.R.C.P. Edin., M.R.C.S. Eng., L.S.A.—Medical Officer for the Lyme Regis District of Axminster Union.

RICHARDSON, R., L.R.C.P.E., L.F.P.S.G.—Medical Officer to the Rhayader District of Rhayader Union.

WHITE, WILLIAM HENRY, M.B., M.S. Dub., L.M.—Medical Officer for the Alberbury District of Atcham Union, Salop.

MILITARY APPOINTMENTS.

WAR OFFICE.—MEDICAL DEPARTMENT.—To be Surgeons-Major—Surgeons E. L. Low, M.B., *vice* E. W. Young, M.D., retired upon temporary half-pay; T. Murtagh, *vice* S. H. Halahan, M.D., retired upon temporary half-pay; J. Greig, M.B., *vice* W. K. Stewart, M.D., deceased. To be Surgeons—G. T. Langridge, gent., B. W. Fowler, gent., W. E. Webb, M.B., R. W. Mapleton, M.B., O. G. Wood, M.D., W. L. Gubbins, M.B., R. G. Thomsett, gent., P. J. McQuaid, M.D., F. H. Spencer, M.B., J. Ring, M.D.

MEMORANDUM.—Honorary Deputy Surgeon-General C. H. Fasson, Surgeon-Major, half-pay, has been permitted to commute his retired allowance.

BIRTHS.

ATKINS.—On March 4, at Sutton, Surrey, the wife of Francis D. Atkins, M.R.C.S. Eng., L.S.A., of a daughter.

BRABAZON.—On March 6, at Lymm, near Warrington, the wife of Philip Brabazon, M.D., of a daughter.

BROWN.—On March 8, at Beckville, Beckenham, Kent, the wife of Charles R. Brown, M.D., of a son (Vernon).

BULLOCK.—On March 2, at Overtown House, Spring Grove, Isleworth, the wife of Henry Bullock, F.R.C.S., of a son.

OWEN.—On March 7, at Haulfre, Beaumoris, the wife of Robert Brisco Owen, M.D. Edin., of a daughter (Evelyn Mary Brisco).

PULLAR.—On March 5, at Kensington-park-gardens, the wife A. Pullar, M.D., of a daughter.

WILLETT.—On March 5, at Wyke House, Isleworth, the wife of E. Sparshall Willett, M.D., of a daughter.

DEATH.

SHONE, ARTHUR LEWIS, son of William J. Shone, M.R.C.S. Eng., L.S.A., at Great Marlow, on March 6, aged 7.

VACANCIES.

In the following list the nature of the office vacant, the qualifications required in the Candidate, the person to whom application should be made, and the day of election (as far as known) are stated in succession.

BERKS COUNTY ASYLUM, MOULSFORD, WALLINGFORD.—Assistant Medical Officer. Candidates must be duly qualified. Applications, with testimonials, to Dr. R. B. Gilland, Medical Superintendent.

BIRMINGHAM AND MIDLAND FREE HOSPITAL FOR SICK CHILDREN.—Resident Medical Officer. Candidates must be duly qualified. Applications, with testimonials, to the Medical Committee, Children's Hospital, Steelhouse-lane, on or before March 23.

BLOOMSBURY DISPENSARY, 62, GREAT RUSSELL-STREET.—Resident Medical Officer. Applications, with testimonials, to the Secretary, on or before March 16.

BRISTOL GENERAL HOSPITAL.—Assistant House-Surgeon. Candidates must be duly qualified. Applications, with testimonials, to the Secretary, on or before March 20.

COUNTY AND BOROUGH LUNATIC ASYLUM, SNENTON, NOTTINGHAM.—Assistant Medical Officer. Candidates must be duly qualified and registered. Applications, with testimonials, to the Chairman of the Committee of Visitors, on or before March 26.

EDMONTON.—Medical Officer of Health. Candidates must be legally qualified medical practitioners, and registered under the Medical Act of 1858. Applications, with testimonials, to Mr. W. Pulley, Clerk, on or before March 14.

HOLBEACH UNION.—Medical Officer for the Sutton Bridge District. Applications, with testimonials, to the Clerk of the Union, on or before March 15.

KILBURN DISPENSARY.—Senior Resident Medical Officer; also Assistant Resident Medical Officer. Candidates must be duly qualified. Applications, with testimonials, to the Honorary Secretary, 30, Boundary-road, Finchley-road, N., on or before April 6.

LANCASTER COUNTY ASYLUM.—Assistant Medical Officer. Applications, with testimonials, to the Superintendent.

MIDDLESEX HOSPITAL.—Assistant-Physician, Assistant Obstetric Physician and Dental Surgeon. Applications, with testimonials, to the Weekly Board, on or before March 31.

NARBERTH UNION.—Medical Officer. Candidates must be duly qualified. Applications, with testimonials, to Mr. John Thomas, Clerk, on or before March 21.

NORTH LONDON CONSUMPTION HOSPITAL, HAMPSTEAD.—Candidates must be F. or M.R.C.P. and graduates of a university (or qualify within twelve months). Applications, with testimonials, to the Secretary, Mr. W. Hornibrook, at the offices, 216, Tottenham Court-road, W., on or before April 15.

ONGAR UNION, ESSEX.—Medical Officer. Applications, with testimonials, to Mr. Charles Mott, Chipping Ongar, on or before March 28.

QUEEN'S HOSPITAL, BIRMINGHAM.—House-Physician, also House-Surgeon. Candidates for these appointments must be legally qualified medical practitioners and registered. Applications, with testimonials, to Mr. W. Young, Secretary, on before March 21.

UNION AND PAROCHIAL MEDICAL SERVICE.

*** The area of each district is stated in acres. The population is computed according to the census of 1871.

RESIGNATIONS.

Luton Union.—Mr. Norman S. Kerr has resigned the Markyate South District; area 11,085; population 4049; salary £50 per annum.

Woodbridge Union.—Mr. H. R. Ruckley has resigned the Walton District; area 10,850; population 3658; salary £62 10s. per annum.

APPOINTMENTS.

Camelford Union.—Edward Pearce, M.R.C.S. Eng., L.S.A., to the Camelford District and the Workhouse.

Lincoln Union.—Thos. M. Wilkinson, L.R.C.P. Edin., L.R.C.S. Edin., L.S.A., to the Third District.

Martley Union.—John Ormsby, L.R.C.P. Edin., L.R.C.S. Edin., to the Astley District.

Montgomeryshire.—Henry Johnson, M.D., and Thos. P. Blunt as Analysts for the County.

Petworth Union.—Samuel W. Hope, M.R.C.S., L.R.C.P., to the Workhouse and the Petworth District.

Weobley Union.—Wm. J. Tivy, L.R.C.P. Edin., L.R.C.S. Edin., to the Dilwyn District.

A TESTIMONIAL, consisting of a gold chain, a silver fish-carver, a microscope, and an illuminated address, were presented on the 28th ult. to Mr. H. C. Burdett, late Secretary to the Queen's Hospital, Birmingham. The presentation was made at a supper given at the Royal Hotel, presided over by Mr. W. W. Wilson.

PRIZE QUESTION.—The Société Médicale des Hôpitaux de Paris announces that the latest period for receiving essays on the Phillips Prize Question—"The Curability of Tubercular Meningitis"—is March 31, 1875. The essays, written in French, to be sent to Dr. Besnier, secretary of the Society, 87, Rue Neuve-des-Mathurins. The prize is 1200 fr. in value, and the essayist will have to set forth—(1) the differential diagnosis of tubercular meningitis, (2) its etiology and preventive treatment, and (3) the therapeutical indications furnished by the symptoms observed in the course of the disease. The Society recommends that the greatest care should be taken in narrating the results of personal observation, to indicate the conditions regarding age, sex, heredity, and hygiene.

THE Registrar-General's return of the health of Scotland for the quarter ending December 31 last states that 18,411 deaths were registered in Scotland during the quarter, being in the annual proportion of 215 deaths in every ten thousand persons of the estimated population, or 2·15 per cent. The average death-rate for the quarter during the ten previous years was 220 deaths in every ten thousand persons, or 2·20 per cent., so that the mortality for the quarter has been under the average. The zymotic (epidemic and contagious) class of diseases proved most fatal in December, in which month this was also true of most other diseases. Equalising the months to thirty-one days, it will be seen that 645 deaths from zymotic diseases occurred during October, 593 during November, and 701 during December. The excess during December was chiefly caused by measles, the deaths from that disease having increased from 29 in October, and 22 in November, to 77 in December. Diseases of the brain and nervous system proved least fatal in October, and most fatal in December; 204 deaths

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having occurred therefrom in October, 215 in November, and 231 in December. Diseases of the heart caused 113 deaths in November, 124 in October, and 141 in December. Diseases of the respiratory organs were least fatal in October, 541 deaths having occurred therefrom in November, 538 in December, but only 383 in October. Diseases of the kidneys and urinary diseases proved least fatal in November, and most fatal in December; the deaths therefrom having been 37 in November, 46 in October, and 53 in December. From premature birth debility 134 deaths occurred during October, 91 during November, and 116 during December. The deaths from old age were 103 in October, 115 in November, but only 84 in December. During the quarter, small-pox has continued on the increase, having caused 69 deaths in October, 83 in November, and 94 in December. Measles proved very fatal during December, having caused 77 deaths. In October that disease caused 29 deaths, and in November 22. The high mortality produced by scarlatina in October continued throughout the quarter, the deaths therefrom having been 214 in October, 213 in November, and 216 in December. Hooping-cough caused 33 deaths in October, 38 in November, and 37 in December. The deaths from diphtheria were 43 in October, 31 in November, and 39 in December. Typhus fever decreased during the quarter, having caused 40 deaths in October, 36 in November, and 33 in December. Enteric fever, on the other hand, increased, the deaths therefrom having been 40 in October and November respectively, and 60 in December. Consumption was most fatal during December, when 232 persons died therefrom. In October 218, and in November 194 deaths were caused by that disease. Bronchitis caused 267 deaths in October, 404 in November, and 408 in December.

NOTES, QUERIES, AND REPLIES.

He that questioneth much shall learn much.—*Bacon.*

Justus is thanked.

Statistics.—Mr. W. H. Archer is the Registrar-General of the colony of Victoria.

M.R.C.S.—Cormack's Monthly Journal, June, 1845, p. 421.

Secundus.—The words are—

> "Ad cœdes hominum prisca amphitheatra patebant
> Ut longum discant vivere nostra patent."

Inquirer.—The preliminary examinations of the Apothecaries' Hall are held three times a year—in January, April, and September.

J. Hunter, St. Thomas's Hospital.—His Royal Highness the Prince Consort was present during the delivery of the Hunterian Oration by Mr. C. H. Hawkins in February, 1849.

Bibliopole.—Sir John Hill was consecutively an apothecary, actor, playwright, novelist, botanist, journalist, and physician. He wrote upon trees and flowers, Betty Canning, gems, naval history, religion, cookery, etc., and having made an attempt to enter the Royal Society, and finding the door closed against him, he revenged himself by publishing an impudent quarto volume, uniform with the *Physiological Transactions*, vindictively satirising the Society. You will find a copy of it in the library of the College of Surgeons.

Dr. R., Plumstead.—Sir Thomas Maclear, Astronomer Royal at the Cape of Good Hope, is a member of the College of Surgeons, of which institution he was admitted as long ago as 1815.

Longevity.—The *Times* of the 9th inst. contained some remarkable illustrations of prolonged existence in six persons whose united ages amounted to 545 years, giving an average of *ninety years and exactly ten months to each*. The oldest was a man who had reached the great age of 102 years; the wife of the latter, who survives him, is 96.

F.R.C.S., King's College.—The lectures by Professor Holmes at the College of Surgeons will be duly announced.

Cuvier, Barnstaple.—Professor Huxley and his successor in the chair, Mr. Parker, now lecturing at the College of Surgeons, received their professional education at Charing-cross Hospital. Both are members of the College.

Aurist.—You will find the circumstance mentioned in the *Gentleman's Magazine* for 1731, where it is stated "that a malefactor, one Charles Ray, was reprieved in order that the surgeons might discover whether deafness was not to be cured by purging. This failing, one other experiment was to be tried. The tympanum was to be cut, in order to demonstrate whether the hearing proceeded from it, or the nerves lying between it and the conceptor of the ear, it being the opinion of some that deafness is principally occasioned by obstructions in the said nerves." How it ultimately fared with Ray is not stated.

Dr. McM.—You will find Dr. Todd's Clinical Lectures in vol. xxv. of the *Medical Times and Gazette*.

Statistician, Liverpool.—The "Bills of Mortality" may be obtained at Somerset House, at the office of the Registrar-General. They were originally commenced by the Parish Clerks' Company in 1592.

A Student.—"Somnus ut sit levis, sit tibi cœna brevis," is the ancient axiom of our distich—

> "That your sleep may be light,
> Let your supper be slight."

Dr. McD., Dublin.—The name of Sir Charles Aldis was removed from the list of members of the London College of Surgeons in 1821, in consequence of the manner in which he obtained his knighthood from George IV. He made a final attempt to be reinstated in 1847, when he was peremptorily refused. His son, the late Dr. C. J. B. Aldis, was a most deservedly respected member of the profession.

M.D., Brighton.—It is one of those acts of carelessness on the part of the compilers of the "Medical Register" which we have pointed out on previous occasions. The name of Mr. Willoughby Furner will be found under those of the Turners. Unfortunately for Mr. Furner, who is a Fellow of the College, the mistake has been copied into the "Medical Directory," but as an asterisk (*) appears to his name, it is evident he omitted to reply to the circular of the publishers of the "Directories."

Dr. Canty, à propos of the review of his work on "Skin Diseases" which recently appeared in our columns, says, with regard to his observations on the utility of illustrations in cutaneous diseases:—

"What I point out is, that an illustration always depicts a well-marked case, whereas what practitioners are anxious to learn is how to recognise cases in which the appearances are confused; and these illustrations do not represent."

Chemical Reactions of Fats and Oils.

TO THE EDITOR OF THE MEDICAL TIMES AND GAZETTE.

Sir,—The enclosed paper was sent me by Dr. Day before publication in the *Australian Medical Journal*. Unfortunately, it was written on both sides of the paper, and I put it aside for a while till I had more leisure to copy it. When I took it up again I thought it well to test some of its statements before sending it to you. I have done so, partly from specimens kindly sent me by Dr. Day, and partly from fresh specimens of various kinds of fats and oils. My first trials were failures, but I soon discovered, what Dr. Day afterwards told me, that it is necessary to bruise the albuminous envelopes of animal fat-globules in order to show this reaction. It appears to me a most important contribution to animal physiology. Some of the specimens sent by Dr. Day appeared to have lost their peroxide of hydrogen in the sea-voyage, as they failed to give proof of its presence when treated exactly as the others. A paper from my pen, at page 330 of your last volume, entitled "Old Friends with New Faces," gives a few hints as to the views thus enunciated, taken from letters sent me some months ago by Dr. Day. The present paper, as you will perceive, enters more into detail on the subject. The substances in italics are those on which I myself have experimented with like results.

February 17. I am, &c., W. Bathurst Woodman.

On Certain New Views regarding the Chemical Properties and Physiolcgical Action of Fat. By John Day, M.D. (*From the "Australian Medical Journal," November*, 1873.)

Mr. President and Gentlemen,—I purpose this evening doing myself the honour of submitting for your consideration and opinion the results of a series of experiments on which I have recently been engaged, with a view to ascertain, if possible, the nature of the change which is produced in fats by exposure to the atmosphere.

It is well known that all fats and fatty oils, whether derived from the animal or vegetable kingdom, possess the property, more or less, of absorbing oxygen from the atmosphere, and that when long exposed to its influence some become rancid, and others are converted into *drying oils;* but, beyond this, no attempt, that I am aware of, has hitherto been made to show the true nature of the change which the oxygen undergoes after it has been absorbed.

Now, my investigations have led me to believe that it is invariably converted into peroxide of hydrogen—a substance possessed of very remarkable properties, particularly when looked at from a physiological point of view.

It has been stated by Professor Roscoe, one of our most eminent modern authorities on chemistry, that peroxide of hydrogen, which he calls hydrogen di-oxide, does not occur in nature. On this point I venture to express a difference of opinion, and would even go so far as to say that spontaneously formed peroxide of hydrogen exists in a very large number of substances, many of which are articles of everyday use. For instance, it may often be found, and sometimes in considerable quantities, in kerosene, gasoline, benzine, oil of turpentine, and many kinds of perfumery. With these, however, we have, on the present occasion, no special concern.

It is its universal presence in all fats and fatty oils, with the exception of the fats of recently killed animals—its absence from which I believe I can explain,—that I have undertaken to prove before you this evening, and I will at once proceed with the attempt.

On the table before us are various unselected specimens of the following substances belonging to this class of hydrocarbons, in all of which I have very clearly detected the presence of peroxide of hydrogen, viz:—The fat of *beef, mutton*, and *pork*, beef-marrow, bone-grease, beef and mutton tallow, *fresh butter, prepared lard*, neatsfoot oil, *cocoanut oil, palm oil, cacao butter*, almond, *castor, olive*, and *linseed* oils, and stearine.

There are several tests for the presence of peroxide of hydrogen; but the two best for our purpose are the iodide of potassium and the guaiacum and blood tests.

The iodide of potassium test is open to the objection that it gives the same reaction with ozone as it does with peroxide of hydrogen, which, according to Schönbein, is antozone in loose combination with water. This very objection, however, to its general value as a test for peroxide of hydrogen rather assists us on the present occasion, for it shows us that the oxygen which has been absorbed by these substances must have undergone a change and acquired increased oxidising powers, otherwise it would

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not be capable, as it invariably is, of liberating iodine from iodide of potassium—a property which common oxygen does not possess.

This change in the oxidising powers of the absorbed oxygen leads us to infer that it has been converted either into ozone or peroxide of hydrogen.

Now, the guaiacum and blood test, which is perfectly reliable, will carry us a step further, and teach us that it is peroxide of hydrogen, and not ozone, which has been formed; for one of the characteristic properties of ozone is its power of oxidising and turning blue the resin of guaiacum—a property which, as I will presently show you, peroxide of hydrogen only possesses under very peculiar circumstances, viz., when it is brought into contact with either blood or pus: it then acquires greatly increased oxidising powers, and gives the reactions of ozone.

As the reactions from both these tests become more marked after the lapse of a little time, I have already applied them to each of the specimens before you, so that you may see them to the best advantage. I will also repeat the experiments before you on some of those substances in which the presence of peroxide of hydrogen appears to me to be the most interesting, such as cod-liver oil, olive oil, fresh butter, beef and mutton fats, lard, cocoanut oil, and palm oil.

To gain satisfactory results, it is best to perform the experiments on white blotting-paper, taking care that it does not in itself contain anything which could act on the guaiacum resin, and turn it blue.

The tincture of guaiacum used for the purpose must be a simple solution of the resin in alcohol—not the ammoniated tincture of the British Pharmacopœia.

A water solution of dried blood gives the quickest reaction; but fresh undiluted blood will also give it very readily.

The blood should be applied to the paper first; then the fat or fatty oil; and lastly the tincture of guaiacum.

The greatest difficulty I have had to contend against in these investigations has been to find some satisfactory mode of accounting for the absence of peroxide of hydrogen from the fat of recently killed animals; but I think I am now able to explain it.

You have already seen that peroxide of hydrogen is rapidly changed and converted into another and more active form of oxygen in the presence of blood. Now, when we consider that in the living body the fats are in a fluid or nearly fluid state, and freely brought under the influence of the blood globules, the colouring matter of which is supposed to be chiefly instrumental in effecting this change, it is not difficult to arrive at a tolerably plausible hypothesis regarding the absence of peroxide of hydrogen from the fats of recently killed animals.

The following experiment, I think, favours the view that fats are incessantly generating peroxide of hydrogen, and that the only circumstances under which it does not accumulate in them are those in which blood, or some other substance capable of destroying it, is present. On October 19, I put the fat of some beef, which was killed on the 10th, into the oven at a temperature of 100° Fahr., as nearly as I could manage it, and left it there for four hours; at the expiration of that time it had become pretty strongly charged with peroxide of hydrogen, although before it was put into the oven it did not show a trace of it.

My mode of accounting for this change is as follows:—The fat was rendered fluid by the agency of heat, and this condition brought the colouring matter of the blood and the peroxide of hydrogen of the fat into closer contact, and thus led to their mutual destruction, and that this went on until the whole of the colouring matter of the blood had been destroyed. The peroxide of hydrogen then began to accumulate.

On applying the guaiacum test for blood to the fat before it was placed in the oven, I got the characteristic blue reaction very freely; but after it was taken out and allowed to cool, the test, although one of extreme delicacy, gave no evidence whatever of the presence of blood.

It has been suggested to me by a scientific friend that if it be true that so many substances in common use contain peroxide of hydrogen, it might rather detract from the value of the guaiacum process for the detection of blood in medico-legal cases—a test with which my name has become associated; but this really forms no valid objection to its use, from the simple fact that blood falling on cloth or any other article containing peroxide of hydrogen would very quickly decompose it.

Now, although I feel tolerably confident in the correctness of my views regarding the chemical changes which oxygen undergoes after its absorption by fats, I am free to confess that the physiological views I have undertaken to bring before you are of a purely speculative character. Nevertheless, if we see reason to believe that fats in the living body produce the same changes in the inspired oxygen that fats out of the body produce in atmospheric oxygen, it will offer us sufficient encouragement to pursue these inquiries further; and I do not think I claim too much in saying that they may lead to valuable results.

My present belief is, that fats, either in or out of the body, are incessantly absorbing oxygen and converting it into peroxide of hydrogen. That in the body they produce the first change in the inspired oxygen, and convert it into peroxide of hydrogen, ready for conversion, through the agency of the blood globules, into some still more active form of oxygen—probably ozone.

In conclusion, I will briefly mention those points in the chemical properties of peroxide of hydrogen which are possessed of the greatest physiological interest:—

1. It is a powerful oxidising substance, and is chiefly characterised by the ease with which it parts with half its oxygen. Its oxidising powers are much greater than those of common oxygen, but less than those of ozone, into which it is supposed to be converted in the presence of blood.

2. It is chemically indifferent to albumen, and may be kept for a long time in contact with it, without undergoing change; in this respect it differs widely from ozone, which acts energetically on albuminoid substances, particularly when they are beginning to decay.

3. It is destroyed by heat.

Now, assuming that peroxide of hydrogen is a normal constituent of fat, this last-named property may help to explain why persons suffering from rheumatic fever and other diseases in which the temperature of the body rises to 107° Fahr. invariably die; for we are told by writers on chemistry that peroxide of hydrogen begins to decompose at 100° Fahr., and that it decomposes with great rapidity at higher temperatures.

Milton and Modern Science.

TO THE EDITOR OF THE MEDICAL TIMES AND GAZETTE.

Sir,—It has often been remarked that there is sometimes a curious resemblance between the imaginative dreams of poetry and the well-reasoned theories of philosophy. It may, perhaps, interest your readers to notice how some of the great generalisations of the present century were shadowed forth by one of our greatest poets some 200 years ago.

In the fifth book of Milton's "Paradise Lost," we read that the Angel Raphael, being on a visit to our first parents, was entertained at a most sumptuous feast, elaborately prepared by Eve. But preparatory to the feast, and whilst "our general mother" "heaps with unsparing hand" the various fruits and wines of Eden, Raphael and Adam are engaged in conversation.

"Awhile, discourse they hold,
No fear lest dinner cool."

And, as might be expected of such society, the "discourse" is of a highly intellectual order. Says Raphael—

"Whatever was created, needs
To be sustained and fed; of elements
The grosser feeds the purer—earth the sea,
Earth and the sea feed air, the air those fires
Ethereal, and, as lowest, first the moon;
The sun, who light imparts to all, receives
From all *his alimental recompense*
In humid exhalations."

Now, all this is before dinner, and is, therefore, only preliminary. Nevertheless, in the poetical idea of an "alimental *recompense*," we have a thought which may well suggest to us Mr. Grove's grand and well-established theory of the "correlation of forces."

But after dinner, when Eve "their flowing cups with pleasant liquor crowned," the philosophers take still higher flights, and our "primitive great sire" shows a commendable interest in various problems, which still vex the thoughts of his descendants.

"For when with meats and drinks they had sufficed
(Not burdened) Nature, sudden mind arose
In Adam, not to let the occasion pass,
Given him by this great conference, to know
Of things above his world, and of their being
Who dwell in heaven . . . ."

And this inquiring curiosity on the part of Adam calls forth the great post-prandial oration of the "winged hierarch," which runs as follows:—

"O Adam, One Almighty is, from whom
All things proceed, and up to Him return,
If not depraved from good, created all
Such to perfection; *one first matter all*
Endued with various forms, various degrees
Of substance, and, in things that live, of life;
But more refined, more spirituous and pure,
As nearer to him placed, or nearer *tending*
Each in their several active spheres assigned,
Till body up to spirit work."

Now here, and in the lines which follow, we have strongly suggested the following theories:—

1. That the universe has been produced from "one first matter" (nebular theory of La Place).
2. That all living things have been formed from this "first matter" (one primordial cell of Darwin).
3. That all are "nearer tending" to perfection ("development" and "survival of the fittest").
4. That all things have their "several active spheres assigned" ("environment" and "equilibration" of Spencer).
5. "Till body up to spirit work" (evolution).
6. The above ideas are still further set forth in the lines which follow, and which teach that "from the root springs lighter the green stalk," thence the leaves, the flowers, the odours; that the flowers and fruits form man's nourishment; that this "nourishment" is gradually sublimed into "vital spirits"—animal life, intellectual life, fancy, understanding, reason (the physico-chemical theory of Huxley).

"So from the root
Springs lighter the green stalk, from thence the leaves
More aëry, last the bright consummate flower
Spirits odorous breathes; flowers and their fruits,
Man's nourishment, by gradual scale sublimed,
To vital spirits aspire, to animal,
To intellectual, give both life and sense,
Fancy and understanding."

But the "poet's eye" sees farther than the philosopher's, and we catch a glimpse of the day when, much "improved by tract of time," we shall have developed into winged beings, taking aërial flights to the stars, and dining with the angels.

"Time may come when men
With angels may participate, and find
No inconvenient diet nor too light fare;
And from these corporal nutriments, perhaps,
Your bodies may at last turn all to spirit,
Improved by tract of time, and, wing'd, ascend
Ethereal as we; or may, at choice,
Here or in heavenly paradises dwell."

Surely here are Darwin, Spencer, and Huxley, and all the philosophers anticipated and surpassed by the poet.

Maidstone. I am, &c., Josiah Oliver, L.R.C.P. Edin.

Wakefield says—"The late Dr. Caleb Crowther was a clear-headed man, much in advance of his time, and an able practitioner. He denounced in the strongest words the practice of bleeding in mania, and especially in puerperal mania, and accused 'country practitioners' of destroying their patients or rendering them incurable by this depletion. It must be remembered that many 'country practitioners' at the date of Dr. Crowther's essay (1826) were destitute of any other education than an apprenticeship, with perhaps a year's 'walking' of some hospital, and any other qualification than the membership of the College of Surgeons. The Apothecaries Act had not been in force more than ten years, so that only the younger men were likely to have undergone the limited education and examination then enforced by the 'Hall.' Dr. Caleb Crowther also laments most strongly the reluctance and delay in sending patients to an asylum."

Asrael.—It is sufficient condemnation to say that it would lead to endless abuse. Physicians treat disease, and it is not their place to inflict death.

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B. asks—"What is the earliest date of pregnancy at which a child has been known to be born and live; and what is the least weight of such a viable child?" If "B." refers to vol. i. of the *Calcutta Medical Transactions*, 1825, he will find an account by Mr. Baber, of Buxar, of a child born at six months and a half, which at the age of fifty days weighed exactly one pound thirteen ounces, and was fourteen inches long. The longest circumference of the head was ten inches; the shortest, nine inches and one-tenth. The child sucked freely.

Tyro.—Idiopathic tetanus is supposed, with every probability, to be caused by cold and wet simply. Traumatic tetanus is consequent on injury, though greatly promoted by cold and wet. The idiopathic is sometimes fatal, but it is often treated by purgatives and anodynes with a happy result. There is nothing new in the proposal.

COMMUNICATIONS have been received from—

Mr. R. Clement Lucas, London; Mr. W. Forward, Axminster; Dr. Handfield Jones, London; Mr. Campbell De Morgan, London; Dr. Reed, Manchester; The Secretary of the Statistical Society; Dr. B. W. Richardson, London; Dr. Sparks, London; Dr. J. W. Allan, Fort William; Mr. J. Chatto, London; Mr. C. W. Drew, London.

BOOKS RECEIVED—

Transactions of the Obstetrical Society, vol. xv.—Report of the Health of Liverpool during the year 1873, by W. S. Trench, M.D.—Report of the Committee of Visitors of the Hanwell Lunatic Asylum—Maclaren's Training in Theory and Practice, second edition—Les Eaux Thermales de l'Ile de San Miguel (Açores) Portugal—Annual Report of the York Lunatic Asylum.

PERIODICALS AND NEWSPAPERS RECEIVED—

Lancet—British Medical Journal—Medical Press and Circular—London Medical Record—Allgemeine Wiener Medizinische Zeitung—Pharmaceutical Journal and Transactions—Gazette Médicale—Le Progrès Médical—La France Médicale—La Tribune Médicale—Berliner Klinische Wochenschrift—Edinburgh Medical Journal—Practitioner—The Scotsman—Gazette des Hôpitaux—The Pictorial World—Food, Water, and Air—Grant College Students' Journal—Liverpool Daily Courier.

APPOINTMENTS FOR THE WEEK.

March 14. *Saturday (this day).*

Operations at St. Bartholomew's, 1½ p.m.; King's College, 2 p.m.; Charing-cross, 2 p.m.; Royal Free, 9 a.m. and 2 p.m.; Hospital for Women, 9½ a.m.; Royal London Ophthalmic, 11 a.m.; Royal Westminster Ophthalmic, 1½ p.m.; St. Thomas's, 9½ a.m.

Royal Institution, 3 p.m. Mr. C. T. Newton (Keeper of Greek and Roman Antiquities, British Museum), "On Ephesus."

16. *Monday.*

Operations at the Metropolitan Free, 2 p.m.; St. Mark's Hospital for Diseases of the Rectum, 2 p.m.; St. Peter's Hospital for Stone, 3 p.m.; Royal London Ophthalmic, 11 a.m.; Royal Westminster Ophthalmic, 1½ p.m.

Medical Society of London, 8 p.m. President (Mr. de Méric's) Address. Dr. Dowse will exhibit—1. A Basilar Artery (abnormal); 2. An Elbow-Joint, showing dislocation of both bones backwards, of 30 years' standing. Dr. J. M. Fothergill, "On some points in the Treatment of Diseases of Children."

Royal College of Surgeons of England, 4 p.m. Mr. W. K. Parker's Lecture on "The Structure and Development of the Vertebral Skull."

17. *Tuesday.*

Operations at Guy's, 1½ p.m.; Westminster, 2 p.m.; National Orthopædic, Great Portland-street, 2 p.m.; Royal London Ophthalmic, 11 a.m.; Royal Westminster Ophthalmic, 1½ p.m.; West London, 3 p.m.

London Anthropological Society, 8 p.m. Meeting.

Pathological Society, 8 p.m. Adjourned Discussion on Cancer.

Royal Institution, 3 p.m. Prof. Tyndall, "On the Physical Properties of Liquids and Gases."

Statistical Society, 7¾ p.m. Mr. Henry Beverley (Inspector-General of Registration in Bengal), "On the Census of Bengal."

18. *Wednesday.*

Operations at University College, 2 p.m.; St. Mary's, 1½ p.m.; Middlesex, 1 p.m.; London, 2 p.m.; St. Bartholomew's, 1½ p.m.; Great Northern, 2 p.m.; St. Thomas's, 1½ p.m.; Samaritan, 2½ p.m.; King's College (by Mr. Wood), 2 p.m.; Royal London Ophthalmic, 11 a.m.; Royal Westminster Ophthalmic, 1½ p.m.

Royal College of Physicians, 5 p.m. Croonian Lectures—Dr. Murchison, "On Functional Derangements of the Liver."

Royal College of Surgeons of England, 4 p.m. Mr. W. K. Parker's Lecture on "The Structure and Development of the Vertebral Skull."

19. *Thursday.*

Operations at St. George's, 1 p.m.; Central London Ophthalmic, 1 p.m.; Royal Orthopædic, 2 p.m.; University College, 2 p.m.; Royal London Ophthalmic, 11 a.m.; Royal Westminster Ophthalmic, 1½ p.m.

Royal Institution, 3 p.m. Prof. W. C. Williamson, "On Cryptogamic Vegetation—Ferns and Mosses."

20. *Friday.*

Operations at Central London Ophthalmic, 2 p.m.; Royal London Ophthalmic, 11 a.m.; South London Ophthalmic, 2 p.m.; Royal Westminster Ophthalmic, 1½ p.m.; St. George's (ophthalmic operations), 1½ p.m.

Royal College of Physicians, 5 p.m. Lumleian Lectures—Dr. Sibson, "On the Influence of Bright's Disease (1) on the Heart and Arteries, and (2) in the Production of Inflammation."

Royal College of Surgeons of England, 4 p.m. Mr. W. K. Parker's Lecture on "The Structure and Development of the Vertebral Skull."

Royal Institution (Weekly Evening Meeting, 8 p.m.), 9 p.m. Dr. W. B. Carpenter, "On the Temperature of the Atlantic."

VITAL STATISTICS OF LONDON.

Week ending Saturday, March 7.

BIRTHS.

Births of Boys, 1260; Girls, 1276; Total, 2536.
Average of 10 corresponding years 1864-73, 2237·1.

DEATHS.

	Males.	Females.	Total.
Deaths during the week	765	813	1578
Average of the ten years 1864-73	780·5	751·3	1531·8
Average corrected to increased population	...	...	1685
Deaths of people aged 80 and upwards	...	...	52

DEATHS IN SUB-DISTRICTS FROM EPIDEMICS.

	Population, 1871.	Small-pox.	Measles.	Scarlet Fever.	Diphtheria.	Whooping-cough.	Typhus.	Enteric (or Typhoid) Fever.	Simple continued Fever.	Diarrhœa.
West	561359	...	21	...	...	5	...	1	2	2
North	751729	...	13	3	1	7	...	...	...	3
Central ...	334369	...	6	4	...	5	...	4	1	2
East	639111	...	15	12	...	17	...	2	...	1
South	967692	...	7	6	1	22	1	6	2	5
Total	3254260	...	62	25	2	56	1	13	5	13

METEOROLOGY.

From Observations at the Greenwich Observatory.

Mean height of barometer	30·295 in.
Mean temperature	41·6°
Highest point of thermometer	56·8°
Lowest point of thermometer	29·8°
Mean dew-point temperature	37·6°
General direction of wind	Variable
Whole amount of rain in the week	0·03 in.

BIRTHS and DEATHS Registered and METEOROLOGY during the Week ending Saturday, March 7, 1874, in the following large Towns:—

Boroughs, etc. (Municipal boundaries for all except London.)	Estimated Population to middle of the year 1874.*	Persons to an Acre. (1874.)	Births Registered during the week ending Mar. 7.	Deaths Registered during the week ending Mar. 7.	Temperature of Air (Fahr.) Highest during the Week.	Lowest during the Week.	Weekly Mean of Mean Daily Values.	Temp. of Air (Cent.) Weekly Mean of Mean Daily Values.	Rain Fall. In Inches.	In Centimetres.
London	3400701	45·1	2536	1578	56·8	29·8	41·6	5·33	0·03	0·08
Portsmouth ...	120436	26·8	66	61	56·0	28·6	44·8	7·11	0·10	0·25
Norwich	82257	11·0	49	39	52·8	25·0	39·1	3·95	0·03	0·08
Bristol	192889	43·3	129	99	...	...	...	...	...	...
Wolverhampton ...	70896	20·9	59	29	55·9	32·5	43·4	6·33	0·12	0·30
Birmingham ...	360892	43·0	307	197	55·4	35·3	43·5	6·39	0·11	0·28
Leicester	106202	33·2	103	45	56·2	32·0	43·5	6·39	0·01	0·03
Nottingham ...	90894	45·5	73	39	56·6	28·7	42·2	5·67	0·05	0·13
Liverpool	510640	98·0	438	274	52·0	31·0	43·7	6·50	0·04	0·10
Manchester ...	355339	82·8	277	192	57·8	32·0	44·9	7·17	0·07	0·18
Salford	133068	25·7	145	86	55·8	31·4	44·7	7·06	0·07	0·18
Oldham	86281	18·5	56	47	51·0	...	...	...	0·05	0·13
Bradford	163056	22·6	147	61	51·6	32·8	41·8	5·44	0·17	0·43
Leeds	278798	12·9	333	166	53·0	34·0	42·2	5·67	0·25	0·63
Sheffield	261029	13·3	225	146	54·0	30·5	42·0	5·56	0·13	0·33
Hull	130996	36·0	133	51	53·0	26·0	40·0	4·44	0·00	0·00
Sunderland ...	104378	31·6	86	43	...	...	...	...	...	...
Newcastle-on-Tyne	135437	25·2	120	78	51·0	35·0	43·7	6·50	0·07	0·18
Edinburgh	211691	47·8	125	115	...	...	...	...	...	...
Glasgow	508109	100·4	408	272	50·8	31·0	44·0	6·67	0·24	0·61
Dublin	314666	31·3	199	170	57·0	26·7	45·7	7·61	0·03	0·08
Total of 21 Towns in United Kingdm	7618655	86·6	6014	3788	57·8	25·0	43·0	6·11	0·09	0·23

At the Royal Observatory, Greenwich, the mean reading of the barometer last week was 30·30 in. The lowest was 29·80 in. on Sunday morning, the 1st inst., and the highest 30·56 in. at noon on Friday.

* The figures for the English and Scottish towns are the numbers enumerated in April, 1871, raised to the middle of 1874 by the addition of three years and a quarter's increase, calculated on the rate which prevailed between 1861 and 1871. The population of Dublin is taken as stationary at the number enumerated in April, 1871.

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ORIGINAL LECTURES.

ON THE

CLINICAL OBSERVATION AND PRACTICAL ESTIMATE OF MORBID TEMPERATURE.

AN INTRODUCTORY CLINICAL LECTURE.

By T. LAYCOCK, M.D.,
Professor of the Practice of Medicine and Clinical Medicine in the University of Edinburgh.

Fundamental Importance of the Subject: Clinical Testing of Theories—Illustrations—Post-mortem Rise of Temperature, and Theories—Four Methods of Observation—Psychology of Thermal Feelings.

GENTLEMEN,—I do not call your attention to cases to-day (February 3), since I only took charge of the clinical wards yesterday. This introductory lecture may, however, be usefully devoted to a practical consideration of morbid temperature—*i.e.*, to how to observe, and how to estimate therapeutically, the results of observation, whether as to theory or practice. In my systematic course I have this session treated specially of this subject as a new department of the practice of medicine. The value of a thorough knowledge of vital thermogeny cannot well be over-estimated, for it is at the foundation of all medical science and practice. It is not only a fact that there can be no life of any kind without heat, but that a proper degree of heat is needed for healthy life. Whether we study the origin and multiplication of "germs," or spores, as the causes of epidemics and zymotic diseases, the healing of an ulcer, the course of a fever, or the condition of a patient as to bodily and mental pain, the question of degree of temperature always arises. It is hardly saying too much to affirm that a higher or lower temperature of the brain may determine whether there be delirium or not, and whether a man be a dement or a genius.

If we take only a superficial view of this department of clinical medicine, it may be properly said that observation of temperature at the bedside should have two practical ends—first, to ascertain the origin and course of diseases, or the causes and progress; second, to determine present and future treatment. I say "present," for a very high or very low temperature may indicate the instant need of cooling or heating the body.

But when the physician aims at rational treatment, he has to consider what are the causes of diseases; and these are always theoretical—that is to say, explanatory deductions from facts more or less carefully observed.

The theories of the causes of fevers and inflammations are constantly changing, and therewith the kind of practice. To exclude a right estimate of theories from clinical work is in fact to exclude all that is rational and scientific. And since every man theorises as to causes, whether he intends it or not (and I may say those who claim for themselves the exclusive merit of being practical, in the sense of non-theoretical, are usually the crudest theorists), no one can be a sound practitioner unless he is able to take out of theories all that is true to fact and nature—to winnow out the grains from the chaff. It is hardly a quarter of a century since it was the general practice to bleed in fever and inflammation. A theory was current when I was a student that an excess of fibrin in the blood was the cause of the increased heat and vascular activity; and with this was associated another of an increased *vis a tergo* as the cause of congestions and effusions; and bleeding was thought to be useful by removing the excess of fibrin and allaying the *vis a tergo* of the circulation. At the first venesection I witnessed, more than forty years ago, which was in a case of pneumonia, the practitioner drew the blood into a series of teacups, so that at the next visit he might be able to study the buffy coat, and judge as to the amount and density of fibrin in each. If there was a thick coat and cupped, then there was need of free or further bleeding.

In 1847 an epidemic influenza prevailed in this country, and I made it the subject of a clinical lecture. At that time discussions were common as to whether bleedings should be practised or not for bronchitis and pneumonia. I thought not. My lecture was published in the *London Medical Gazette* for December 17, 1847. In the same number you will find a lecture by Dr. West on the treatment of pneumonia, pleurisy, and bronchitis in children, in which bleeding from the arm and by leeches, with tartar emetic and mercury, is confidently recommended; and in another lecture, of December 31, free bleeding and large doses of tartar emetic are recommended for acute œdema of the lungs. All this is now out of date; but at that time it was almost axiomatic, because founded upon an undoubted theory, and the theory was undoubted because it was not clinically tested. To illustrate by a current theory. When the temperature of a patient rises very high—so high, say, as 108°—it is certain he is in danger of dying; that is a fact of experience. If it be further said, however, that the high temperature is the cause of the danger, and that he must be at once cooled down, then that is practice founded on a theory in which there is a portion of truth only. I say *the* cause, for to mention one condition as the sole cause is a fallacy. There are always more causes than one. So when you find the temperature so high in a patient, you may always be sure that there is a cause for that, and that that cause is probably even more dangerous than the high temperature. So that merely to cool the patient down, without taking into consideration why he is so hot, and what causes that great heat indicates, would not be a sound method of treatment. A very high temperature not only indicates an imminent tendency to die, but often accompanies the state of dying, and in truth continues not very unfrequently after death. So that to understand the meaning of this condition, the temperature of every dead body, and the conditions in which it is placed, should at least be observed—first, at the moment of dying; second, before removal to the dead-house; third, before a post-mortem examination or coffining; and these should be compared with the observations made during life.

A high temperature is peculiarly the characteristic of certain diseases, as in acute muscular as compared with acute articular rheumatism, pneumonia as compared with bronchitis, scarlet fever as compared with measles or small-pox. So, also, certain modes of dying have a high temperature; and, in fact, the death is in truth in a certain proportion of cases only apparent, so that there may be recovery after several hours. Syncopal death, due to sudden failure of the heart's action, is sometimes associated with a high temperature of the corpse. This may be maintained for hours with a very low atmospheric temperature.

A case of sudden death from collapse, in a young woman in York Hospital with scarlatina, came under my observation when house-surgeon. I made a post-mortem examination on a very cold evening in winter, the temperature being below freezing; but although the corpse had been in the dead-house (an out-house) for several hours, it was so hot when I raised the sternum—the body, in fact, gave off such vapour—that I felt aghast at the thought that I had opened a living body. The presence of many ounces of a sero-sanguineous fluid in the pericardium explained, however, the manner and cause of death. There could not be a doubt that heat had been generated in that corpse for several hours. The temperature may, in fact, rise higher in various diseases after death than during life. Wünderlich had a case of tetanus of 112·15° before death, but fifty-seven minutes after death it amounted to 113·675°.

In the collapse of epidemic cholera, this increasing warmth of the body is not uncommon, and therewith development of muscular energy also, so that movements of the limbs occur.

A late tragical occurrence at Haddon, in Derbyshire, illustrates the need of a thorough practical testing of theories. A lady died suddenly while her niece was alone with her and acting as her nurse. The body retained a high temperature after death. The heart was found on post-mortem examination in an advanced state of fatty degeneration, with its walls much thinned. The lecturer on toxicology at the London Hospital was sent for to give evidence as an expert at the coroner's inquest, and he said that the high temperature negatived the idea of death by syncope, and that it proved that she had swallowed immediately before death some volatile noxious substance of a nature unknown to him. In short, he theorised that death was due to a poison, because the corpse continued of a high temperature, and as he could not detect a poison it must have been volatile. A warrant was thereupon made out for the apprehension of the niece as a murderess, and in the agony of mind this caused her she committed suicide. Altogether, it is a distressing history, and an emphatic warning to us all not to be led to abandon facts for theory, and that the clinical observation of morbid temperature is not only useful for treatment, but also enables us to test the

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theories of vital heat and thermogeny which determine practice. For example, it is a current theory of almost universal acceptance, that the rise and fall in the temperature of the sick depend exclusively on the dilatation and contraction of the small vessels under the influence of the vaso-motor system, and thereby admitting or shutting off the blood to or from the tissues; but this rise of temperature in the dead body negatives the theory. Besides, there is thermogeny in the tissues of plants, which have neither nerves, nor blood, nor bloodvessels; and also in the non-vascular tissues of animals. In short, we learn that morbid changes in temperature are more complex as to causes than any of these theories leads us to suppose. But I may here remark that just as the mind seeks for one cause, so it selects one class of facts out of a theory. The influence of the nervous system is made all in all in certain theories of heat; and in other theories of disease it is wholly ignored. I have long endeavoured to give it its proper place in etiology, but as a consequence I am supposed to attribute everything to nerves, although I constantly show how complex is causation.

There are four methods by which you can observe change of temperature. First, a patient may appear to be cold or hot; he may look pale and may shiver, or seem to be flushed and hot. Secondly, he may at the same time tell you that he *is* hot or cold. Thirdly, you may feel with your hand, and ascertain his state. Fourthly, you can use the thermometer. The last is the most certain but the most limited method; the first two are the most uncertain. For complete clinical observation, however, all four methods are needed. It would appear at first thought that no one can more properly state his condition as to temperature than the patient himself; but usually, in fact, when he tells you he is hot or cold, he is only telling you his mental, and not his corporal condition. He states only what he feels. If, however, the patient use or has used his own hand to ascertain his bodily state, that is another thing. Now, the *feeling* of being hot or cold belongs quite as much to medical psychology as the imagination. Very often the feeling by no means corresponds to the real condition, but is an illusion leading to delusion, is a pseudo-æsthesia. It is a neurosis, in short. This is very common in the cold stage of ague, and in rigors, however originating, as illustrated by a case at present in the wards:—John M. is a joiner, and was admitted on November 19, 1873, complaining of pain in the left side, occasional attacks of ague, and general weakness. He says that while out in Arkansas, about the end of last July, he had an attack of ague one very hot day. This was evidently ushered in by a slight sunstroke while on the top of a frame-house, for at first he suddenly felt giddy, and had a peculiar sensation in his head, "as if the blood was all flowing to his ears," and everything seemed dim, and he could not hear for several minutes.

The paroxysms assumed a quotidian type, recurring about twelve o'clock daily for nearly two months. These commenced with a rigor, which lasted for half an hour, followed by the hot stage of two hours' duration, and terminated by profuse sweating. During his voyage home, and since his arrival, he has had attacks at longer or shorter intervals, and we have had an opportunity of witnessing a paroxysm since admission to hospital. On the evening of November 30, about seven o'clock, he complained of being very cold, saying the "chills" were coming on, and desired to be covered up with blankets. There was not, however, any very distinct rigor. His temperature in the axilla at this time was 103·6°. This stage lasted nearly an hour, and the hot stage set in with a temperature of 104·2°, which terminated in about two hours by profuse sweating. He has taken quinine, and has had no recurrence of the paroxysms.

(To be continued.)

NEW SIGN OF DEATH.—M. Bouchut stated at the Académie des Sciences that at the moment of death gases which are normally imprisoned in the venous blood are disengaged, forming a pneumatosis of the veins. The pneumatosis of the veins of the retina is easily appreciable by the ophthalmoscope, and constitutes an immediate and certain sign of death. This pneumatosis is indicated at the moment of death by the interruption of the column of blood in these veins—a phenomenon similar to that which is observed in the interrupted column of a thermometer with coloured alcohol.—*Gaz. des Hôp.*, March 10.

ORIGINAL COMMUNICATIONS.

OPERA CLINICA.

ON THE APPLICATION OF COLD TO THE CERVICAL REGION FOR THE REDUCTION OF PYREXIA.

By BENJAMIN W. RICHARDSON, M.D., F.R.S.

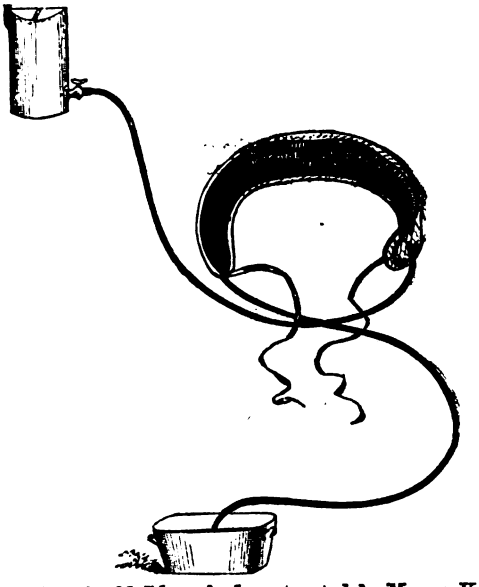
In conducting my researches on the effects of extreme cold on nervous function (published in this journal in 1867, in the Lectures on Experimental and Practical Medicine), I made some attempts to discover at what part of the body cold might be most effectually applied to reduce the mean animal temperature. The results of these inquiries were held in reserve for a special lecture on the subject to be delivered after the research had been sufficiently carried out. I have not had leisure to follow up this intention, but as I have been led by experimental learning to introduce what I hope will prove a simple and useful advance in practice, I may in one or two brief passages write what is worthy of notice in a clinical point of view.

In my experimental inquiries I produced cold by ether spray, freezing the tissues over the region I wished to affect, and noting the influence of the cold upon the temperature of the internal parts, the mouth, the rectum, or, if birds were the subjects of observation, the cloaca.

The results I obtained were that the animal temperature could be most readily reduced by applying the cold ether over the region of the heart or over the cervical region. I found no difficulty in either case in reducing the general temperature from one to one and a half degrees on Fahrenheit's scale. But when the extreme cold was applied over the region of the heart, it seemed to me to produce irregular action of the heart, and depression. I also found that the *sudden* action of extreme cold to the cervical region produced a depression of the circulation. Consequently, I substituted slower action of cold for that produced by ether spray, and confined the application to the cervical region.

In this, the cervical region, the parts that may be easily brought under the action of cold are most important in respect to the vital functions. It is a grand gateway of the living body. Thus, the blood coursing through the jugular veins is immediately influenced; the blood coursing to the brain through the carotids is also influenced, though less determinately; the great cervical centres of the sympathetic nerve are influenced; the pneumogastrics are influenced; and, lastly, the air passing through the larynx and upper part of the trachea is slightly influenced.

To bring all these parts in the human subject under the



steady action of cold, I have had constructed, by Messrs. Krohne and Sesemann, a simple apparatus. It consists of an india-

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rubber bag or pouch which fits round the throat, and through which a current of iced cold water can constantly pass. After the bag has been adapted to the throat, the water is brought from a small reservoir (which may be attached to the head of a bed or to the wall above the level of the patient) through an elastic tube into the bag, and is allowed to flow out of the bag through a second tube into an ewer or other vessel placed on the floor by the side of the bed. The reservoir holds four quarts of water, and that quantity is sufficient ordinarily to pass through the bag per hour. The quantity allowed to pass can be regulated by a stopcock at the end of the tube as it leaves the reservoir, and if lumps of ice be kept in the reservoir, the water can be used over and over again. An extra stopcock at the other end of the tube, where it falls into the ewer, controls easily the pressure of the water in the bag.

In adjusting the bag to the neck, it should be tied in position by two ends of tape, which are attached to it. It becomes then easy, by regulating the stopcocks, to combine a gentle pressure with the cold, if that be desired.

I have used this method of applying cold to the cervical region now several times in pyrexia with increasing confidence in its usefulness. In a case of apoplectic seizure, with convulsions, in a lady of middle age to whom I was summoned, I found a temperature of 102° Fahr., with deep unconsciousness, rapid pulsation of the carotids, and intense fulness and tension of the jugular veins. In this extreme instance I had the cervical region enveloped in a bladder of crushed ice, with the result of a fall of temperature to the natural standard in six hours, a quiescent condition of the circulation, and a subsidence of all the acute symptoms,—so marked in character, it were, I think, impossible to doubt that cause and effect were in their true place. This patient made a good recovery, and, although I do not attribute the recovery solely to the special remedy now being considered, I am convinced the remedy was of good service.

I had an opportunity of trying the effect of this mode of applying cold on myself. I took a feverish catarrh, attended with a rise of animal temperature to 100° Fahr. I had the bag neatly adjusted, and let pass freely through it water taken simply from the cistern, the temperature of the day being at freezing-point. As the water current began to pass over the front part of the neck, with a gentle pressure which I regulated myself by the stopcock, I felt the effect of the cold very deeply, and at first not pleasantly. In three or four minutes, however, though the skin over the throat was ten degrees lower than on the other parts of the body, the sensation of cold was lost, and all unpleasantness was gone. Within a quarter of an hour I was conscious of a general reduction of fever, and of lessened vascular activity. The cold also had a soothing influence, producing desire for sleep. On this followed perspiration, and within two hours a reduction of the temperature to the natural standard.

These effects were satisfactory, because no other mode of treatment was employed to complicate the experience.

I shall look out with interest for the results of the observations of other practitioners on this method of reducing pyrexia. It stands on a good physiological basis; I believe its practical worth is clear; and I would that its usefulness were tested by the independent observation of other workers in our common field of labour.

I would urge on those who may study the effect of cold, more or less extreme, applied to the cervical region, to observe the influence it exerts, in different classes of cases, upon the heart. If I am correct that it reduces the action of the heart, and if I am also correct in the view that it promotes a tendency to sleep, this remedy, so simple, will prove useful in many other forms of disease than acute pyrexia. In acute mania, in cases of insomnia, in cases of palpitation and cardiac irritability, it deserves the test of experience.

ON THE MEDICINAL DOSE OF FREE PHOSPHORUS.

By J. ASHBURTON THOMPSON,
Surgeon-Accoucheur to the Royal Maternity Charity;
Surgeon at King's-cross to the Great Northern Railway Company, etc., etc.

(*Concluded from page* 283.)

DEOXYGENATION of the blood, the excretion of phosphoric acid by the lungs, luminosity of the urine and of the tissues after death, and the production by chemical processes of phosphorous compounds from the organs of animals poisoned with that metalloid, point, then, to the presence of free phosphorus in the blood and in the tissues; while the superior activity of oily over other solutions of phosphorus, and the impossibility of procuring the characteristic effects of the drug but with the assistance of such compounds as readily yield up their base in the free state, point to the latter as being that condition in which phosphorus exerts its peculiar powers over the living body.(a) It is therefore essential that the remedy should be introduced to the circulation in the free state. In order to ascertain the best method of effecting this, it is necessary to state briefly what is known of the process of absorption of phosphorus from the stomach.

The investigation by some authors of this part of the subject seems to be obscured by a desire to prove the formation of phosphoric acid in the stomach, and to attribute the poisonous power of phosphorus to this oxide. Lecorché,(b) for example, in support of the proposition, points to the occurrence of ulcerations in the stomach after phosphorus poisoning, and there only; premising that phosphorous acid, which is certainly produced, has not the power of ulcerating. He then adduces the fact that phosphoric acid injected into the blood has the power of destroying the red corpuscles of the blood, as they are found to be destroyed after poisoning with free phosphorus. These two points appear to me to have led the author to a fallacious conclusion. In the first place, inflammation and ulceration of the bowels are not confined to the stomach in these cases. In a case reported in the *Lancet*,(c) general inflammation of the stomach and ileum is noted. These appearances might perhaps result from the passage into the intestine of unaltered morsels of phosphorus; but perforation of the stomach has been noted in cases of poisoning with phosphorised oil,(d) and there is no evidence to show that phosphorus is separable in the stomach from this solvent, which is, indeed, the one best calculated to protect it from oxidation in that viscus. Phosphoric acid injected into the blood has the power of destroying the red corpuscles; but this power is not confined to phosphoric acid, but is shared by others of the mineral acids. On the other hand, phosphoric acid introduced to the blood by the stomach—the mode in which it must be introduced if it be made in the organ—is a perfectly harmless medicine; so that, though it might be injected of such a strength as to cause inflammation of the mucous membrane, yet it has no power, on entering the blood by this channel, of injuriously affecting the corpuscles. It is not, therefore, needful to prove the production of phosphoric acid in the stomach as a result of the ingestion of free phosphorus; on the contrary, by so much as this oxide is produced, by just so much will the characteristic effects of free phosphorus fail to exhibit themselves. Starting from his hypothesis, Lecorché explains the greater activity which is manifested by free phosphorus if it be ingested at or about meal-time, by the greater production of phosphoric acid, with the assistance of the oxygen which is then present in the stomach in larger quantity than at any other time. Apart from the above consideration, Mialhe's explanation of this fact seems more reasonable—viz., that the phosphorus is, under these circumstances, largely dissolved in the fatty constituents of the food; and this no doubt is one very important means by which the drug is absorbed. But no doubt also these circumstances are favourable to the production of phosphuretted hydrogen, which has been ascertained by Wohle to be dialysable, and of hypo-phosphorous and phophorous acids. In the latter oxide another solvent for phosphorus is found; and so, while phosphorous acid itself is capable of rendering some of the effects of free phosphorus, this product serves also to introduce the element in a free state—probably the only condition in which it exerts its full powers. These, then, are the principal means by which the absorption of free phosphorus from the stomach is effected; and to them may be added one other—viz., the diffusion of the vapours which it gives off at the temperature of the stomach in the gastric fluids, which thus become subsidiary to the absorption of the element, although they are not solvents of it (Gubler). Phosphoric acid may, however, be formed in the stomach, as the experiments of Personne and Tilley previously cited go to prove; but they prove also that the

(a) Note that these observations are only preliminary to a statement of the hypothesis that it is by its conversion into phosphoric acid within the circulation that phosphorus acts.
(b) *Archives de Physiologie*, 1868.
(c) *Lancet*, vol. ii. 1871, p. 189.
(d) Christison, "On Poisons." Worbe, quoted by Taylor.

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transformation is one to be avoided as far as possible, since not only is phosphoric acid a comparatively inactive body, but if a fragment of phosphorus acquire a coating of it, it will thereby be protected from further decomposition.

These observations, necessarily very brief, and therefore imperfect, bear especially upon the administration of solid phosphorus, but possibly the tinctures of phosphorus—alcoholic or ethereal—may practically be regarded as ways of administering solid phosphorus; that is, if these solutions separate in the stomach into their component parts. The mode of action of zinc phosphide, which decomposes into phosphuretted hydrogen and a salt of zinc, is also illustrated by them.

From the foregoing observations the following general deductions may be drawn:—Firstly, that the more perfect the state of reduction in which phosphorus is ingested, the more actively will it exhibit its powers. The most perfect reduction is attained by solution. Secondly, that the introduction of free phosphorus to the circulation is the first object to be attained in attempting to procure the characteristic effects of this drug. Thirdly, that the better adapted the solvent is to protect the phosphorus from the action of the oxygen in, or the fluids of, the stomach, the more free phosphorus will enter the circulation. Oil is the solvent which best fulfils these conditions.

Theoretically, then, a solution in oil offers the best method of exhibiting free phosphorus; but practically, as I have shown above, this method is open to serious objections. A few doses of phosphorised oil, equivalent to only a very small dose of free phosphorus, are sufficient to produce, sometimes, symptoms of poisoning, but oftener intestinal derangements, which, if not dangerous to life, are at all events extremely serious to the patient. A severe attack of diarrhœa may be, and often is, the only ill result; but I have known flatulent dyspepsia to be originated by so small a quantity as five-twentieths of a grain of phosphorus given in oil, and in five separate doses, in a person not previously subject to any disorder of the kind, and which persisted for many weeks; and I have for this or a similar reason been compelled on more than one occasion to suspend the treatment before any distinguishable therapeutic result had been attained. I think that in these facts sufficiently weighty reasons may be found for rejecting the solution of phosphorus in olive oil at least, notwithstanding Professor Gubler's recently published opinion that it is the best means of exhibiting the drug. I have been led to this conclusion from an experience of only nine cases—in other words, although in some of them the treatment resulted in cure, in all of them one or other of these disagreeable symptoms was noted: vomiting, diarrhœa, or long-continued flatulent dyspepsia. This experience is corroborated by that of almost every other writer on this subject. Phosphorus may, however, be dissolved in cod-liver oil with the result of completely concealing or losing its odour and taste. I have given two doses daily of such a solution, each being equivalent to one-twelfth of a grain of phosphorus, without producing any ill effect until the eleventh day (when a slight diarrhœa occurred) in the case of a delicate and phthisical girl. So large a dose dissolved in olive oil could not have been thus taken without the occurrence of toxic symptoms much earlier and in a more severe form. These facts suggest that cod-liver oil impairs the activity of phosphorus. I do not think that this is the case. Well-chosen cases of neuralgia yield so certainly to free phosphorus that I have employed them as tests of the efficacy of the various preparations of the drug. Tried in this way I have found this solution to be perfectly active and efficacious. In addition, Dr. Arthur Edis has supplied me with details of a case (related elsewhere) in which a teaspoonful of cod-liver oil containing about one-sixtieth of a grain of phosphorus was accidentally given to a baby, with a result all but fatal. I therefore conclude that phosphorus may be efficiently administered in this menstruum. If, however, the solution in olive oil should be selected for administration, the dose should probably never *exceed* the equivalent of one-fortieth of a grain given twice daily, and watched with the greatest care. The occurrence of the most trifling dyspepsia or diarrhœa should lead to the instant suspension of the remedy.

Solutions of phosphorus in ether, chloroform, and alcohol are scarcely trustworthy. I imagine that on the introduction of any solution of phosphorus to the stomach the law of elective affinity comes into play; and the very strong predilection for oxygen which phosphorus shows probably leads to its separation from these fluids, and to its premature oxidation. This is most likely the reason that Löbenstein von Löbel was able to take twenty-five drops of a solution of one grain of phosphorus in one drachm of ether every two hours for eleven days with impunity; and that I have been able to give as much as one-sixth of a grain dissolved in alcohol three times a day to patients of almost all ages for considerable periods, and half that dose to many patients for the space of twelve weeks without any intermission. In all solutions of this class there is probably a constant circulation going on from the oxidation of the phosphorus in the uppermost layer, and descent of the resulting phosphoric acid. In this way they may soon become oxidised throughout and inert, and they should, therefore, always be freshly prepared or kept in full and closely stoppered bottles. I have remedied this defect to a great extent by adding a large proportion of glycerine; in this way tincture of phosphorus may be kept in an active condition for some weeks at least. In order to obtain any striking effect with these solutions, or a uniform effect in a large number of cases of neuralgia especially, not less than half a grain of free phosphorus must be administered during each twenty-four hours. I have not yet observed any toxic or untoward symptom follow on the use of any of them, and I have found that the quantity specified for daily administration may be exceeded to an unascertained extent with impunity. These preparations are adapted to such cases as require a long-continued administration of the remedy.

Solid phosphorus must be perfectly reduced (pulverised) if it be desired to exhibit the remedy in this form with safety and success. From what has been said on the mode of absorption of phosphorus, the desirability will be apparent of introducing it to the stomach while full of food, when it may be in part dissolved by the fatty elements of the meal, and absorbed during digestion with them. The propriety of this plan being acknowledged, it follows that solid phosphorus is not to be given to patients who are not eating moderately well. The result of inattention to this rule is exemplified in the case of poisoning with solid phosphorus briefly related in the first portion of this article. Probably, in this case, the drug was in the first place a little acted upon in the almost empty intestines, so that the larger undissolved portion obtained a protecting cover of phosphoric acid, the small portion which was dissolved being enough to act beneficially upon the patient's general health, with the effect, among others, of increasing the appetite. Then a large and fatty meal was indulged in, and undischarged remainders of former doses of phosphorus were suddenly dissolved and absorbed in poisonous quantity. Notwithstanding this explanation of the way in which the greater part, at all events, of a dose of solid phosphorus is absorbed from the intestines—viz., by its solution in fat,—I have not observed the drug given in this form to produce any of those effects which are noted of the olly solution. To effect the reduction of solid phosphorus to the condition of an impalpable powder, which is necessary to its safe exhibition, without exposing it to oxidation during the process, is not an easy matter. The difficulties, however, have been satisfactorily overcome by Messrs. A. H. Cox and Co., who have manufactured for me pills containing perfectly reduced and unoxidised phosphorus. The very soluble coating with which these pills are provided is an important addition well calculated to prevent subsequent oxidation while stored. I have obtained better results with this preparation than with pills containing a solution of phosphorus in suet or in beeswax. The dose of solid reduced phosphorus should not exceed one-thirty-second of a grain repeated thrice daily immediately after meals.

Phosphide of zinc presents a convenient and safe means of procuring the therapeutic effects of free phosphorus. It well illustrates the specific power of phosphorus over certain forms of neuralgia. I have found the most active dose to be two-thirds of a grain repeated every four hours; but so large a quantity as this will generally cause nausea, and sometimes vomiting, with much offensive eructation. These symptoms occurring early and after each dose of the medicine, have not the same significance as nausea and vomiting occurring after a course of solid phosphorus or after some doses of phosphorised oil. They are perhaps partly owing to the salt of zinc formed in the stomach on the decomposition of the phosphide. These unpleasant results may be avoided by giving one-third of a grain every two hours; and this is the dose which has yielded the best result when it was desired to produce an effect rapidly. Messrs. Cox and Co. have also prepared me pills of this material, and the coating is serviceable in preventing the slightest eructation, which has sometimes ensued upon the smaller dose. Phosphide of zinc may also be given in powders,

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and this form is best adapted for the administration of free phosphorus to children. I have given one-sixth of a grain every four hours to children of all ages in acute diseases or in cases of desperate exhaustion from acute disease; apparently with the result of giving the patient time in which the critical period has been tided over.

The dose of phosphorus varies somewhat, then, with the preparation used; but it should also vary, as is the case with other drugs, with the end in view. Thus, if neuralgia be the disease under treatment, unless full doses of whatever preparation is chosen be used, uniform results of the treatment of a large number of cases will not be attained. So in exhaustion from acute disease, or prostration from malignant forms of disease, the full dose must be administered. A rather wide experience leads me to consider the following quantities of the various preparations to be full doses, measured by their equivalent in free phosphorus:—Of phosphorised oil, one-fortieth of a grain twice a day; of solution in ether, chloroform, or alcohol, one-twelfth of a grain every four hours; of solid phosphorus, one-thirty-second of a grain three times a day; of phosphide of zinc, one-third of a grain every two hours. But in cases of hysteria or of epilepsy, small doses will answer every purpose, and for the treatment of these cases either the tincture of phosphorus or zinc phosphide should be selected. I have given two-thirds of a grain of the latter compound three times a day in two cases of epilepsy for periods of five and seven weeks respectively, without harm. The rule of intermitting the administration of phosphorus every fourteen days for a space of seven days, as recommended by Continental physicians, is a wise one, whatever formula be employed. But I have concluded that it is unnecessary to continue the treatment for so long a period; since, if benefit be derived from it at all, it will be derived very much sooner than this.

I cannot conclude these notes without again and earnestly directing attention to what has been recorded above of the toxic powers of phosphorus. This element is, perhaps, not a more active poison than many others, but the most insidious with which we are acquainted. Strychnia, arsenic, or belladonna cannot be administered in large medicinal doses without the occurrence of slight warning symptoms before any harm is done at all; but under certain circumstances a patient may receive a poisonous amount of phosphorus with apparently no other result than a beneficial one, until he suddenly manifests all the symptoms of acute poisoning, which make their appearance in a fully developed condition, and with an abruptness which can be compared to nothing so aptly as to an explosion.

REPORTS OF HOSPITAL PRACTICE IN MEDICINE AND SURGERY.

ST. MARY'S HOSPITAL.

CASES OF TYPHOID FEVER.

(Under the care of Dr. HANDFIELD JONES.)

Case 1.—*Typhoid Fever—Hyperpyrexia—Large Sudamina—Failure of Ammonia Injected into Vein—Death—Significance of Dilated Pupils.*

F. S., AGED 24, labourer, admitted December 19, 1873. Hair and eyes brown. Taken ill about eighteen days ago, with headache, prostration, anorexia, thirst. Generally enjoys good health. Lies sunk down in the bed, with legs quite extended. Pulse 110, rather weak and jerky; temperature 102·9°; heart-sounds normal. No definite spots, gurgling, or pain in right iliac fossa. Lower ribs expand well in inspiration. Liver dulness extends from fifth space to two finger-breadths below ribs. Had diarrhœa smartly the other night.

20th.—Spots seen. Urine, specific gravity 1032; presence of albumen doubtful. Much vomiting.

22nd.—Temperature has risen to 104°; pulse 104; heart's impulse imperceptible—first sound very weak.

23rd.—Temperature 104°. Very copious diarrhœa in night; some sickness. Seems sinking.

24th.—Temperature 104°. Pulse small, weak, quick, jerky, not dicrotic to my touch or to that of another skilled observer, but the tracings taken on 22nd and 23rd showed the most marked dicrotism.

25th.—Temperature 104°. State same.

26th.—Pulse not to be counted; face very pale; temperature 106·5°; pupils very dilated; skin of arms and upper parts quite hot and bathed in sweat. On the upper abdomen and lower chest were large sudamina, the epidermis being raised by clear alkaline or neutral serum; some of the vesicles were as large or larger than big peas. The veins of the upper extremities were so empty of blood that it was no easy matter to introduce the hypodermic needle into one at the bend of the elbow. This, however, was done, and half a drachm of liq. ammoniæ (one part of the strong solution to two of water) was injected, but no rally ensued, and he died soon after. Nitric acid was given at first for a few days with opiate enemata; the diarrhœa was arrested by chalk and catechu mixture. On the 24th he was ordered tinct. digitalis ℿxv., ammon. carb. gr. ij., tinct. cinchon. ʒj., dec. cinchon. ʒj., 4tis horis. He had also brandy in large amount, and as much nourishment as could be taken.

Remarks.—The fatal event was due in this case to failure mainly of the circulation. The heart's debility—perhaps degeneration—was shown by loss of the impulse and first sound; the toneless ness of the capillaries by the occurrence of large sudamina, the serum escaping from the vascular plexus below the epidermis at various spots, without any apparent hyperæmia. The rise of the temperature up to the time of death, or even after, is not unfrequent in similar cases. This does seem to me to point very strongly to loss of some controlling power, which in the normal state kept down the over-production of heat. *A priori* one would be inclined to place this in some part of the nervous system; and it seems to me difficult, in the face of the evidence afforded by accidental injuries and experimentally inflicted on the upper part of the spinal cord, to deny that this nervous centre possesses a very considerable regulating power. Production of course depends on the tissue elements, but the amount of heat so produced is controlled by the nervous system. Usually it seems that the presence of freely moving blood in quantity is essential to the generation of high temperature; but in this instance, both in the axilla and in the distal part of the arm, considerable production of heat coincided with a scanty supply of blood. The copious sweating can only be referred, so far as I can see, to vaso-motor nerve paresis, which certainly existed. The dilatation of the pupils depended, I believe, on paresis of the third nerve; for, however it may be contended that dilatation may be produced by stimulation of the sympathetic filaments proceeding to the lenticular ganglion, yet, as a matter of clinical experience, dilatation of the pupil is almost invariably a sign of failure of nerve-force. Syncope, chloroform, and alcohol narcosis, prussic acid poisoning, atropa mandragora poisoning, deadly snake-bite, low fever (as here), and locally palsy of the third nerve or of the retina, are all conditions in which great dilatation of the pupil occurs, while the co-existing phenomena are—except in the case of local lesion—all those of more or less utter nerve-prostration. Even in less grave disorder, though there are many exceptions, I think the rule is, that a large sluggish pupil implies a languid, toneless heart and arteries. One such case I call to mind, where, though the general health is good, there is a marked tendency to syncope, and lately considerable menorrhagia. I should generally take a dilated state of pupils as an indication to beware of depressant treatment.

Case 2.—*Typhoid Fever—Hyperpyrexia—Ice-Bath employed—Supervention of Pneumonia—Digitalis and Tonics given—Recovery.*

A. N., male, aged 19, cheesemonger, admitted December 29, 1873. Ill since 23rd; has had much diarrhœa since he took a strong aperient pill on 27th; last two stools light-coloured. Complains much of pain at lower left abdomen, which came on to-day. Much dulness at same region, extending to about median line; abdomen extremely tender, not tense. Tongue red, with a broad dry stripe in middle. Temperature 104°; pulse 120. Lungs appear tolerably free. No sleep for about three nights. Aspect dull, heavy. Has had catarrh for some time. Was shivering much yesterday. Simple diet—beef-tea, milk, acid. nitrici ℿiij., spt. chlorof. ℿx., aq. ʒj., ter die. Opii gr. ss., 2dis horis. Laudanised poultice to abdomen constantly.

December 30.—Abdomen less painful; pain is referred more to lower side of right chest, but good breathing is heard there. Some dulness at lower right back, and very small but not fine crepitation. Is not narcotised. Tongue moist; no spots. Herpes about mouth; bowels quiet. Temperature 105·5°

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pulse 150, not very weak. Is restless; head aches; loud, noisy cough. Brandy ten ounces.

31st.—Last evening about 6 p.m. had an iced bath. Temperature before bath was 105·8°; he remained in it twenty-five minutes; was taken out when the temperature in the mouth was 102·2°. He was then put to bed, and shivered strongly for an hour, after which he went to sleep, and passed a good night. Some time after he left the bath his temperature fell to 95°, his pulse to 120. This morning his temperature is 104°, pulse 106. At 10 p.m. his temperature had fallen to 101·6°.

January 1, 1874.—Had a very fair night. Two loose pale stools; tongue moist and coated. Pulse 100, very weak. No spots; no malar flush; scarcely any expectoration, but coughs frequently. Temperature 102° at 11 a.m. Complains of cough and sense of heavy weight in right chest; can't get his breath freely. Distinct scraping friction-sound is heard in right side, and the lower back is dull. Scarcely any breathing is heard when he is quiet; but, when a deep inspiration is taken, as in coughing, a number of almost fine crepitations are heard. Higher up in the back, above this dull and silent region, there is resonance and breathing. Left lung healthy, except some dulness and very weak breathing at the lowest back.

2nd.—About 8 a.m. he became very faint and blue in the face, and his breath very short. Mustard and linseed poultices were applied to the back and front of chest, and brandy was given with relief. At my visit in the afternoon I found marked and extensive dulness in both backs, and tubular breathing, with crepitus on deep inspiration. Pulse 140, very weak; temperature 102°. Ammon. carb. gr. v., tinct. digitalis ℥xv., dec. cinch. ℥j., 4tis horis.

3rd.—Temperature 103°; pulse 110, very weak. Very little sleep in night. Complains of pain at left side of abdomen; this part is resonant, but the right is rather dull. Stools quite like those of typhoid, and very offensive. Tongue red and dry in middle. Tinct. opii ℥xv. in enemata.

4th.—Temperature 99°; pulse 100, of more force.

5th.—Temperature 99·6°; pulse 100; tongue coated and dry in middle; no diarrhœa since a second opiate enema on 3rd; First sound of heart audible, but weak. Extensive dulness in both backs; absence of breathing in right; tubular breathing and fine crepitation in left; same heard in right back when he breathes more forcibly.

6th.—Temperature 99·7°; pulse 90, very weak; urine paler. Takes plenty of nourishment. No delirium; no expectoration.

7th.—Temperature 98·9°; pulse 84, distinct; tongue red, moist, clean. Can sit up in bed. Tubular breathing has ceased in right back, but there is dulness in the lower half, and the air enters imperfectly. Left back is more resonant, and more breathing is heard in it. Scarcely any expectoration. Sleeps much better.

8th.—Doing well. Pulse quiet, of fair force; temperature 98·6°. Omit tinct. digitalis.

10th.—Eating a sole.

15th.—Had left-side pain yesterday, catching him in inspiration; it was relieved by sinapisms and poultices, and is not much now. Urine turbid, with lithates. Potass. iod. gr. ij., pot. bicarb. ʒss., tinct. cinch. ʒss., inf. cascarillæ ʒj., ter die. The brandy, which had been gradually reduced up to the present time, was now omitted, and replaced by two ounces of port and some ale.

From this time he convalesced uninterruptedly, and went out about the 27th.

Remarks.—Little doubt will, I suppose, be entertained that this was a case of typhoid fever, yet I doubted more than once during the progress of the malady. The question which presented itself was whether it was simple pneumonia of a low typhoidal type or enteric fever complicated with pneumonia in an unusually outspoken and demonstrative form. In favour of the first view were the labial herpes, the pain and sense of weight in the right side, the dyspnœa, the noisy cough, the well-marked physical signs, the quick defervescence, the absence of spots. In favour of the second are the points that the disease began gradually without initial rigor, that there was much diarrhœa, the stools like those of typhoid, that there was great abdominal tenderness at first, and dulness, and that the pneumonia did not set in until nine days from the commencement of the illness. The non-appearance of the lung inflammation for a day or two would not surprise me, but I have never known in common pneumonia so long a delay as in this instance. Both pneumonia and typhoid may be regarded in nearly the same light as respects the relation of their phlegmasias to the essential malady. But perhaps we ought not to insist on one or other view being exclusively true. As we know that the causes of two specific diseases may affect the system at or near the same time, the action of one beginning before that of the other has subsided, so it may have been here. The cause of enteric fever may have acted first, and the cause of pneumonia afterwards. Here I ought to pose the question whether the iced bath should be incriminated of producing the latter malady. As there were some indications of commencing inflammation at the right posterior base before the bath was administered, I do not think that it can have all the credit or discredit; but I quite admit that it may have intensified the inflammation considerably. Yet I do not repent me that I used it, for had I not the patient would almost surely have died of the sheer intensity of the fever, and there can be no question that the general effect of the bath was highly beneficial. Dr. Stokes, if I remember aright, makes the remark that certain lung inflammations are localised fevers. So it almost seemed to be here, for the temperature fell four degrees in twenty-four hours after the pneumonia had existed three days, and convalescence ensued much as in a case of the simple malady. It does not seem improbable that the occurrence of a severe pulmonary affection might promote the decline of the intestinal. At any rate, no trouble was experienced from this quarter after the pneumonia had reached its height. Digitalis was given freely with bark and ammonia to meet the threatening failure of the heart's action, and though the result was not strikingly beneficial, yet it tends to support the view now generally held of the drug being a cardiac tonic. It may be asked, Why was not the iced bath employed in the former case as well as in this? The answer is: that the patient was so far gone on the last day of his life, when the temperature for the first time had risen so high, that I despaired of saving him, and feared he might even have died in the bath. Yet in any similar case of hyperpyrexia, where there was hope that the heart's action could be maintained for some hours, I should certainly advise it.

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Medical Times and Gazette.

SATURDAY, MARCH 21, 1874.

THE DISCUSSION ON PYÆMIA AT THE CLINICAL SOCIETY.

This discussion, which was brought to a close at the last meeting of the Society, on Friday, March 13, has been followed by us with more than usual interest.

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It is now two years since we endeavoured to ascertain the experience and opinions of forty or fifty of the leading surgeons of the United Kingdom upon various points connected with pyæmia.

We sought from them answers to several questions, all of which had reference to matters of the greatest importance in connexion with the origin, relations, prevention, and treatment of this disease.

But the mental effort required to consider the strict bearing of questions, still more the reference to notes and records, whether mental or manuscript, which is requisite for furnishing deliberate and concise answers, are, it would appear, sacrifices too great to be made for the purpose of supplying materials for editorial reports. We were told, too, at the time that our questions were inopportune, because the weather was too hot for work, and men's minds were filled with anticipations of the approaching holidays.

From some few well-known members of the profession who are never daunted by more or less hard work, we did indeed obtain valuable replies, but these it was not necessary for us to communicate by themselves, as their authors had previously published their views in an independent manner.

Our wish was to deal with each question separately, after obtaining a large number of answers, so as to illustrate the accordance or discordance of statements by different surgeons in the three divisions of the kingdom.

Much of what we tried, but failed, to elicit on this large scale from men closeted in their libraries, has been drawn by Mr. Prescott Hewett's address, and the stimulus of speaking before a large and attentive audience, from a goodly number of metropolitan surgeons and physicians.

The great and leading question brought out by the President's address, refers to the occurrence of pyæmia in private practice. But the discussions have at the various meetings drifted off a good deal into other issues, which were amongst those raised by us in the questions to which we have alluded. More especially we refer (1) to the relation of pyæmia to septicæmia; (2) to the allied nature of pyæmia and erysipelas; and (3) to the specific rules to be observed for the avoidance of pyæmia, and the success which may be expected to attend the observance of such rules. Good has resulted from the discussion in more ways than one. In the first place it has disclosed the great variation in the meaning attached by different surgeons and teachers to the word "pyæmia." Not a few would do away with it altogether, and substitute for it ichorrhæmia or toxæmia. Dr. Hughes Bennett would have reserved it to express the condition called leucocythæmia, but having failed in thus restricting its application, he also would discard the term altogether.

For ourselves, however, we do not think the word so ill-framed as to deserve to be abolished, providing it be not used either too exclusively or too comprehensively. No one would now adopt it exclusively to imply suppuration of the blood or purulent blood. Nor is it any longer supposed that pus must necessarily be conveyed either through an open vein or from an inflamed one to the more distant parts, where subsequently it may be found. Two facts oppose this hypothesis: one is that in these distant parts all stages of inflammation prior to that of suppuration can be traced; and the other is that these purulent depôts may themselves form before any pus is formed at the seat of infection itself. While to maintain that a vein must necessarily have been involved in the processes of inflammation and suppuration is a retrograde step, because the very impossibility of proving this led to the change of name from phlebitis to pyæmia. On the other hand, the term should not be comprehensively applied to all the forms of blood-poisoning produced by the various kinds of animal or vegetable matter. If, however, it be limited to those cases in which there is a tendency to purulent formations, or to the production of those elements which precede the formation of pus, then the term pyæmia has a defined and well-understood application, and no cases are included under it which do not yield results of this character. Cases in which death happens before these results can occur, and in which the source of poison has been an ichorous or decomposing purulent or puriform material, would then be called "ichorrhæmia" or "septicæmia." And under these terms, too, should be included those milder cases of blood-poisoning, from such sources, in which the effects are more transient and less severe.

If, then, pyæmia expresses a tendency—as the result of blood-poisoning—to those inflammatory changes which go on to the formation of purulent matter,—if, in fact, it be a name given to the effects of a blood poison,—to its symptoms and morbid anatomy rather than to its source,—no specificity of nature or mode of action is implied which separates this disease by any hard-and-fast line from septicæmia or ichorrhæmia. In these latter diseases, it is true, death may occur, and yet no morbid local changes will be found on post-mortem examination. But does this distinguish either the nature of the poison, or the essential mode of action of the poison of ichorrhæmia or septicæmia from that of pyæmia? Surely not at all. In many cases of fatal pyæmia, without doubt the local changes in the lungs or other vital organs are of themselves sufficient to account for death; but in the majority of cases this is not so, and death cannot have occurred simply from the defect of the organ or organs in which a few inflamed masses of tissue or a few purulent deposits exist, and still less from the presence of external abscesses or semi-purulent effusion into joints. The fatal result in these cases must be ascribed to some more general cause—to some constitutional disturbance above and beyond that produced by such local changes; and this more general cause is the poisoned state of the blood itself, and its effects on the nervous system. There is no difficulty, then, in understanding how death may happen from a strong dose of poison without any visceral or arthritic affection whatever—without any distinct local morbid changes at all.

Thus, it seems to us that (1) the term "pyæmia" stands for a class of cases included under the more general terms of "ichorrhæmia" or "septicæmia"; and (2) that it signifies a particular set of results excited by the action of a septic poison upon the system, but expresses no theory as to the nature or source of that poison.

The one fact beyond all others which has been made clear by this discussion is, that pyæmia occurs in private practice. It ought not to have required, and perhaps it did not require, a prolonged discussion to prove this fact. Unquestionably some of the worst cases of blood-poisoning, ichorrhæmia or septicæmia, and pyæmia, are admitted into the London hospitals from the houses of the poor, the whole systems of the patients being thoroughly affected before going to the hospital. So, too, are some of the worst cases of erysipelas and phlegmonous erysipelas. In all probability these last-named diseases are milder and different expressions of the same kind of blood-poisoning as pyæmia and septicæmia. Certainly diffused inflammatory changes in the cellular tissue are a very fertile source of systemic infection running on to pyæmic results. If, then, a case of phlegmonous erysipelas passes on, after admission to a hospital, into one of pyæmia (as does sometimes happen), that case of pyæmia ought not to be considered as having had a hospital origin. The seeds of the disease were planted previously to admission, and were imported with the patient into the hospital ward. What, then, becomes of the value of the term "hospitalism"? As standing for a disease or a set of diseases it is superfluous, pretending and yet unmeaning. As expressive of the cause or mode of origin of pyæmia it is

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inaccurate, unjust, and injurious. It is inaccurate, because pyæmia arises sufficiently often (if not as often) without as within the walls of a hospital. It is unjust because inaccurate, and, further, because it is also used to imply hospital overcrowding and other defective hygienic conditions. It is injurious because it is likely to lead up to the conclusion that as pyæmia often takes its origin in hospitals, therefore hospitals must give rise to pyæmia. Such an inference is fallacious, as has been proved more than once.

Though the scourge of wards and hospitals that are impure, ill-ventilated, or overcrowded, pyæmia may be kept away from well-cared-for wards and well-attended patients. Once let the power of prophylaxis be admitted, the rules for the avoidance of pyæmia be recognised, and a great step will have been made towards the security of hospital patients from this disease. On the other hand, adopt the term "hospitalism" to express an influence possessed by hospitals, as such, in originating pyæmia, and no, or but insufficient, attention will be paid to the most approved means for its prevention, while the practical result ought to be the destruction of all save cottage hospitals. Whereas if the term be used to express the results of hospital overcrowding or defective hygiene, the remedy for preventing the extension of these results suggests itself, and hospitalism becomes a term of reproach for the builders or the administrators of hospitals, or for both.

Other matters which have received attention during the debate, and which are by no means of minor importance, are the contagiousness of pyæmia, the influence of internal as well as of external conditions in favouring pyæmia, and thirdly the morbid anatomy of pyæmia.

With regard to the first point, it was clearly shown, by others as well as by the President, that in a number of cases in which pyæmia occurred in private practice, contagion, from hospital sources at least, was quite out of the question. As to the morbid anatomy of the disease, it would seem, from the remarks of some of the speakers, that experience has not lead all surgeons to make the practical division of pyæmic cases into two classes—(1) the *acute*, or those terminating rapidly with affection of the lungs or other visceral organs; and (2) the *chronic*, which are characterised by disease of joints or external abscesses, and which terminate in recovery; or when the disease runs on to a fatal result, doing so frequently by invading the viscera, as in the first class of cases.

The details of the discussion on Friday week are placed before our readers, and will be found under the head "Reports of Societies." Amongst those who took part in the debate on this occasion were Mr. T. Spencer Wells, Dr. Gordon, Dr. Sanderson, Dr. Fayrer, and Dr. Moxon. The President, in conclusion, made a few remarks in reply to the various criticisms and questions which had been raised. The thanks of the profession are undoubtedly due to Mr. Prescott Hewett for delivering an address instructive in itself and instructive in the debate which it called forth.

THE DISCUSSION ON CANCER AT THE PATHOLOGICAL SOCIETY.

The discussion on cancer at the Pathological Society, which was adjourned from the 3rd inst., was resumed on the evening of Tuesday last. The debate was opened by Sir James Paget, who, in a speech of great length, and delivered with his usual eloquence, most probably turned the tide of opinion which seems to have been setting in favour of the local origin of cancer. An abstract of Sir James's speech is given in another part of this journal, and we will not here do more than notice the chief arguments with which he supported his views. Starting with a full recognition of the two elements in the production of cancer—a constitutional and a local,—Sir James pointed out that in this he entirely agreed with Mr. De Morgan. But while Mr. De Morgan "magnified" the local element, he insisted on the importance of magnifying the constitutional. Some cases of cancer seem to present nothing constitutional in their origin, but attentive consideration frequently shows a suddenness in their development which is greatly in favour of their being more than local. A gradual series may be drawn up of growths passing insensibly into each other—from innocent to malignant,—but then consider the malignant end of the series.

Sir James strongly insisted on the *manner* of the inheritance of cancer. No growth is more certainly hereditary than the simple malformation or supernumerary member, but it and allied growths, such as lipomata, have a local and textural relation to the organ or tissue in which they make their appearance. It is the very reverse with cancers, which present in this respect no relation of place or texture whatever, and so far closely resemble syphilis, tubercle, and gout, when transferred from parent to offspring. The effect of injury in producing cancer is in favour of its constitutional origin. The speaker pointed out how certain persons are credited with a constitutional disease called scrofula when a slight injury destroys a joint, or with a constitutional disease called syphilis when an injury to a bone does not heal in the usual course. And so, he argued, we are entitled to call cancer constitutional when we see a wound in the course of healing departing from the recognised province of repair and passing into a condition of malignancy. Sir James next insisted on the almost unexceptional recurrence of cancer after removal by operation, and especially on the *manner* of its recurrence. He contrasted the recurrence of cancer with the non-recurrence of simple growths, and with the chiefly local return of "recurrent fibroid tumours"; and he raised certain objections to the explanation of recurrence by the "mobility of cells." Such are some of the arguments in favour of the constitutional origin of cancer. Sir James indicated the position which he maintains in a few words. "I am anxious," he said, "not to depreciate the local element in the production of cancer, but of the two, were I compelled to give an opinion, I should say that the constitutional element is the more important."

In the last part of his speech, Sir James directly combated the objections raised by Mr. De Morgan to the theory of cancer being a "blood-disease." This he did by showing the close similarity which exists between cancer and other conditions which are admitted "blood-diseases," such as syphilis, tubercle, and gout. Like these, cancer may be temporarily quiescent; may be perfectly sudden in its manifestations; may not have the slightest effect on the healing of local injury; and, like these, it only affects totally different parts of the body on its second appearance or recurrence. Finally, it is no objection to the "blood-disease" nature of cancer that it is more frequent in women, for its occurrence in the uterus and mamma is to be explained in great part by the involution or premature senility of these organs; and senility or degeneration is the very essence of cancer.

Sir James would draw no encouragement in the search for a cure for cancer from the belief in its local origin. He knows that cancer returns after operation in 499 cases out of 500, and he says that all our attempts to cure cancer locally have totally and entirely failed. Rather he would hope for the discovery of some constitutional cure for it, such as we possess in mercury for syphilis. And he believes that to obtain this antidote, as well as to comprehend the true pathology of cancer, we must not depreciate the constitutional origin of the disease.

Mr. Henry Arnott, in following Sir James Paget, confessed to the extreme difficulty of at once rising to combat such a powerful, eloquent, and persuasive speaker. While he agreed with Sir James and Mr. De Morgan in recognising the double origin of cancer, Mr. Arnott speedily showed that he ranged

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himself on the side of the latter, and magnified the importance of the local factor. In support of this view, Mr. Arnott adduced, as might have been expected, certain powerful arguments of an anatomical kind. He pointed out that the fact of distant instead of local recurrence in cancer, which was insisted on by Sir James Paget, was to be explained by the condition and relations of the cells of the primary growth; and the development of a malignant character to its situation as regards heat, moisture, etc. He considered, therefore, that the constitutional element must not be over-estimated, and that the anatomy of the growth must be seriously taken into account.

Sir William Gull insisted upon the local origin of cancer by disputing the correctness of the application of the word "constitutional." The ovum may be said to be constitutionally affected or infected, but the body is composed of parts differentiated out of the impregnated ovum, and suffers when diseased in some definitely localised organ or tissue. He also combated the idea and expression of a "blood-disease." The blood but conveys these poisons; it is not the diseased tissue. "If a man were all blood he could never become gouty." It is, in fact, the tissues that are at fault. Sir William Gull does not participate in Sir James Paget's hope that a cure may some time be discovered for cancer as a constitutional disease. He would himself rely entirely upon immediate and complete removal of the diseased part.

Dr. William Squire pointed out that the fact of the localisation of cancer in particular parts of the body by preference did not, as Sir William Gull seemed to say, militate against its constitutional nature. He adduced the local expressions of the eruptive fevers in support of this; and he also pointed out that blood-disease and tissue-disease are really very much one and the same, for we now know the remarkably close relation of the circulating blood to the nutrient fluid of the tissues.

Dr. J. F. Payne suggested, at the commencement of his speech, that the most important terms employed in the discussion were not defined with sufficient clearness—for example, "constitutional" and "cancer,"—and, indeed, were employed in opposite meanings by the different speakers. He then proceeded to state his meaning of the words "constitutional" and "cancer." Once upon a time malignancy was accepted as the feature by which cancer is recognised, but we have advanced sufficiently in our knowledge of disease to be able to substitute for this a purely anatomical definition. The anatomical character which is to be considered peculiar to cancer is its infiltration of the neighbourhood; its beginning in one tissue, and passing over to an adjacent but totally different one. Once a growth has "passed over" or "bridged over" this small but important interval, it may go on indefinitely. The difficult point, therefore, is the manner of this crossing over from time to time. Some would call it a simple matter of ingrowing; others would say there is a process of infection, as Mr. Simon; and others again speculate upon the occurrence of a process of conjugation. Like the speakers who had preceded him, Dr. Payne expressed his belief in cancer being both constitutional and local in origin. But he pointed out that in speaking of the inheritability of cancer he referred to the transference of "a property of tissue" from parent to child, not "of something separable."

The adjournment of the discussion was moved by Dr. Moxon.

DETAILS OF THE EXPEDITION AGAINST COOMASSIE.

We are every moment expecting the arrival of those much-envied regiments who have earned for themselves the right of transcribing the word "Coomassie" on their colours, and doubtless before these lines are printed the triumphal entry into Portsmouth will have taken place. So far all is satisfactory; and later accounts prove that the return to Cape Coast Castle was not undertaken one moment too soon. The accounts furnished by the medical officers who accompanied the expeditionary force across the Prah confirm the statements furnished by the special correspondents of the various newspapers as to the sudden and unsatisfactory advent of the rainy season; and that the sick and wounded suffered severely from this fresh enemy they were called upon to encounter. Everything that could be contrived to shield them from the wet was put into requisition—bamboos were slanted over their hammocks and covered with waterproof cloth to run off the rain, but in many cases the deluge thoroughly soaked every living thing exposed to it, and bowel complaints and fever became alarmingly prevalent.

Once or twice, on the return track, the column experienced the full force of a tornado, drenching everyone to the skin, and rendering it almost impossible to light a fire to dry the dripping uniforms; watercourses which had been but trickling rivulets on the marsh up, were found to be streams waist-deep when recrossed, and on reaching the river Dah, or Ordah, the 42nd Regiment, forming the rear-guard, finding Major Home's bridge partially carried away, were compelled, officers and men, to strip and swim across, their clothes being carried over on the heads of the native bearers. Fortunately, the ample provision of the medical authorities had secured an abundance of medical comforts and necessaries at each station-hospital along the entire route, and hammocks, with a staff of bearers for the sick, were never found wanting.

Private accounts unite in praising the coolness of every member of the medical staff in attending to the wounded under the hottest fire; and as a proof that the surroundings were sufficient to shake the strongest nerves, it may be stated that when the 42nd Highlanders charged into a thick belt of wood in their advance at Amoaful, the leaves were stripped from the trees by the Ashantee fire, and fell in clouds as though a strong wind was blowing over a forest in late autumn. Very few operations of a grave description were performed upon the field, the worst cases being, in most instances, conveyed to the nearest station-hospitals; the wounds were, for the most part, superficial, the slugs and stones which formed the Ashantee ammunition fortunately penetrating only very little.

Coomassie itself is reported to have been, for a negro town, in a fairly good sanitary condition; the atmosphere was not impregnated with noxious smells from sewage matter, but from the reeking dead bodies of the countless victims to the horrid "customs" of the place. In many respects it was vastly superior to the Fantee villages, where offal and filth of every description is left to contaminate the surrounding air. The climate beyond the Prah, though trying to Europeans, was not so deadly as it has proved to be nearer the coast, and the expeditionary force certainly did not suffer more from sickness the farther it penetrated towards the interior. The hammocks and bearers were apportioned at the rate of 10 per cent. for every hundred men of a regiment for the first hnndred, and 5 per cent. for every hundred after; and in no case does there appear to have been any want of transport, or any delay in providing means for removing sick men to the base of operations. When practicable, the medical officer at each station in advance was prepared by runners for the reception of sick about to be despatched along the route, so that due preparation was made for their arrival, and medical comforts of every sort were available as soon as they got in.

The *Tamar*, with the 23rd Regiment on board, has embarked for this country Surgeons-Major Woolfreyes, Fox, and Turton, and Surgeons Murphy, Wilson, Bolton, Minto, Smith, and Maturin. The *Himalaya* brings the 2nd Battalion of the Rifle Brigade, also Surgeon-Major Wiles and Surgeons MacRobin, Gibson, Williamson, O'Brien, Conyers, Hughes, and Gray.

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The *Sarmatian*, which at the date of the mail leaving Cape Coast Castle was hourly expected there from Gibraltar, was to embark the 42nd Highlanders, and Sir Garnet Wolseley and his staff were reported to be about to leave in the *Manitoban* on the 7th inst.

Every fresh detail of the expedition against Coomassie which reaches us tends to confirm the excellence of the arrangements made by each and all of the different departments employed; and, considering the immense amount of responsibility thrown upon the medical authorities from the first outbreak of hostilities, it is with a feeling of intense satisfaction that we note the unqualified praise which has been bestowed upon it by everyone, from the Commander-in-Chief of the little army downwards.

THE WEEK.

TOPICS OF THE DAY.

WHATEVER may be the condition of the other learned professions in India, it is gratifying to observe that that of medicine is decidedly satisfactory and improving. The report of the Principal of the Grant Medical College for 1873 showed that at the commencement of the year under review there were under instruction the following classes of students:—Graduates and undergraduates, 113; unmatriculated, 4. For the University L.M. degree eight senior students went up for their final examination, and all passed. Two of the number gained the distinction of passing in the first class. In no previous year had so large a number obtained the L.M. degree. The average for the past seven years had been but 2·7. All passed the examination very creditably, and, in the two who headed the list, the Subordinate Medical Department—should Government require their services—will gain most useful and zealous members. They were, throughout their college course, distinguished for their assiduity, and will now reap the benefits which hard and zealous work always brings. For the first examination for the degree of Licentiate of Medicine, twenty-five students of the third year went up, and thirteen passed. About twenty five scholarships and five medals (both gold and silver) were awarded to some of the distinguished students of the College. The Principal, after alluding to the alterations in the course of lectures, denomination of scholarships, etc., concluded with the following remarks:—

"I have already adverted to the gratifying success which attended the results of the examination for the degree of Licentiate of Medicine. In the comparatively large number of students who have on this occasion passed out of the College honoured with the degree of the University, together with the numbers of the two preceding years, we have, I think, an indication of the increasing usefulness of this institution and of the growing interest which the profession of medicine is exciting in the minds of the rising generation."

As might have been anticipated, the Hospital Saturday movement has attracted much attention amongst the working classes. As we have often remarked in these pages, contributions by working men to hospitals are conceived by their donors to give them certain privileges and to entitle them to medical attendance as a right. We perceive that at a meeting of the working classes held last week, to hear explained by a deputation from the Hospital Saturday Committee the objects of the movement, the Rev. G. M. Murphy presiding, the chairman, in the course of his remarks, said, "If an Hospital Saturday were established and carried out, the working classes would, if they contributed on a certain Saturday in the year to the funds of these large institutions, have a right to have some working-class representatives on the Committee of Management of these hospitals." Captain Mercier, the chairman of the Hospital Saturday Committee, said that if the Hospital Saturday movement were carried out, the working classes would be entitled to, and would be able to demand and enforce that they should have, a share in the future management of the hospitals. In what way the working classes could be so directly represented we are at a loss to understand. The general rule which now prevails in these institutions is, that no person who is not a "governor" is entitled to vote; even "annual subscribers" have no such privilege. The governors consist of those who have commuted the annual donation by payment of a certain sum of money, which constitutes them governors for life, and those who pay annually a subscription large enough to entitle them to a vote; but these latter lose their right to vote when their annual subscription is in arrear. To place an unlimited number of voters upon the roll merely because they have collectively subscribed to the funds of the institution would give rise to an agitation which would be inimical to the interests of the hospital. The system at present in force for the election of committeemen and medical officers has long been condemned. By adding another element, such as the working men propose, the evils which already exist would be augmented.

At the *Levée* held on the 11th inst. by H.R.H. the Prince of Wales, on behalf of her Majesty the Queen, the following had the honour of being presented to his Royal Highness:—Sir George Burrows, President of the Royal College of Physicians; Staff Surgeon H. A. Close, and Surgeon C. L. Vasey, of the Royal Naval Service; Surgeon G. J. H. Nevatt, M.D.; Surgeon W. S. Hedley, M.D.; Sir W. M. Muir, M.D., K.C.B.; Surgeons-Major J. H. Porter and H. J. Rose, of the Army Medical Department; Surgeons-Major W. Pearl, and W. H. Rean, M.D., of the Madras Army; Drs. Sieveking and Protheroe Smith. There were also present—Sir William Gull, Sir Thomas Watson, Drs. W. Carr, Farre, Murray, Meadows, Nicoll, W. Pole, F.R.S., Vivian Poore, Reginald Read, W. Sedgwick Saunders; and Messrs. Alfred Cooper and Critchett.

A meeting of Fellows of the College of Surgeons residing in the district was held at the Midland Institute, Birmingham, on March 12, 1874. Present—Furneaux Jordan, Esq., in the chair; Mr. Ebbage, Leamington; Dr. Roden, Kidderminster; Mr. Manby, Wolverhampton; Mr. Baker, Mr. Postgate, Mr. Savage, Mr. Thomas, Mr. West, Mr. Lawson Tait, and Mr. Bartleet. Several letters expressing regret for non-attendance were read. It was resolved,—"That it is expedient that the Provincial Fellows be more largely represented upon the Council of the College of Surgeons than at present." It was also resolved—"That, in the opinion of this meeting, Alfred Baker, Esq., F.R.C.S., Senior Surgeon to the General Hospital, is, from his position and attainments, eminently qualified to represent the Provincial Fellows on the Council of the College of Surgeons; and that Mr. Bartleet, Mr. F. Manby, and Mr. L. Tait, with power to add to their number, do form a committee to promote Mr. Baker's election."

At the annual meeting of the managers of the Aberdeen Royal Infirmary, held a few days ago, it was reported that the actual expenditure for the year 1873 had exceeded the income by the large sum of £1074, which is accounted for partly by the increased price of provisions, etc., but chiefly by a large falling off in the number and amount of subscriptions.

The Royal College of Surgeons of Ireland has rejected the conjoint examining scheme for Ireland which they agreed to last June.

Dr. Stephen Mackenzie has been elected Assistant-Physician to the London Hospital.

THE DENTAL HOSPITAL DINNER.

ON Monday last the Odontological Society, and friends of the Dental Hospital generally, met to celebrate the opening of the new hospital in Leicester-square, with Mr. Campbell De Morgan

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in the chair. A very large company sat down to dinner in Willis's Rooms, and a pleasant evening was spent. After the usual loyal toasts came the toast of the evening, "Success to the Dental Hospital." The Chairman said:—

"It is now twelve or thirteen years since at the instigation of a gentleman whom I must name—my friend Mr. Tomes—(loud and continued cheering)—I am glad I mentioned his name,—this movement began, and as I was conversant with the general working of a hospital, he wanted me to join it, and I did so with pleasure, and from that time to this I have been associated with the Hospital, and have seen all that has been going on in it. I take very great interest in the movement. Fifteen years we have been going on with the old building, but we have outgrown it, and the new hospital was a necessity. We wanted a suitable building, and had to remove from a place not altogether suited to our purpose. Through the energy of one gentleman, who, although senior in the profession, has all the activity and vivacity of youth, the building which we now occupy was discovered in a wretched, dilapidated condition. I confess that when I saw it myself for the first time my heart misgave me, and I think without the then foresight of this gentleman and those associated with him in discovering what were its capabilities for our purpose as a dental hospital, we should not have been successful; whereas we have now, at a comparatively small expense, a hospital as admirably calculated for the purpose for which it is intended as it could well be. I think we owe our success to Mr. Saunders. You can well appreciate what that gentleman has done—the time, money, exertion—indeed every kind of general superintendence has fallen upon his shoulders. He has been aided, no doubt, by a most admirable building committee, who have taken a great share in the working up of the establishment; but still to him we are indebted for being where we are to-day, for I am sure if it had not been for his determination the scheme would have fallen through, which would have been a thing much to be deplored. There are many who would have been glad to see the position we are in to-day—those who laboured with us in earlier times,—and we cannot but regret that time has run on and taken them from us; but still we have amongst those who are coming on many of our old students at that time, and who owe their position now in a great measure to the Hospital. It is gratifying to find that we are not so selfish as some people suppose, for here we find gentlemen occupying a high position making men who would otherwise be ill-trained as learned and as skilful as themselves. You must let me, then, propose, 'Success to the Dental Hospital,' coupling with it the names of the building committee, and especially the name of a gentleman—Mr. Saunders—whose help you will appreciate to-day, not merely because of what he has done for you, but because your own personal esteem will lead you to do honour to the recurrence of his birthday. What his age is I don't know, but he has always been and always will be young, and the older he gets the younger he looks."

The toast was received with acclamation. Mr. Saunders, in replying to the toast, said:—

"Our profession, it seems to me, has been too much looked down upon and under a cloud. In the earlier years of my career I did not feel particularly proud of the profession, and I have often asked myself why it should be so, and I resolved that before my career terminated I would endeavour to do something to elevate it in popular estimation. It is not so long since, barely twenty years, we were unknown to each other. Our profession was in a state of chaos. It was without form and void, and darkness was upon it; but there was a movement at that time which took the thoroughly English form of a series of dinners, originating in a house of great traditions connected with our profession—32, Old Burlington-street—traditions which are still in safe hands, and which, I trust, will be handed down to many a generation yet. Well, gentlemen, the first discovery we made by these agreeable means was that we were not such a set of monsters after all. We were astonished to find that there were in our profession educated, refined gentlemen, kind-hearted and most agreeable companions, and we resolved from that time to form some bond of union amongst ourselves where matters connected with the science and practice of our profession could be discussed, and this resulted eventually in the establishment of the Odontological Society, where we had our museum, our library, our *Transactions*, and our journals; and then we began to consider that we had not yet fulfilled our duty towards suffering humanity, and we organised a system of relief to the suffering poor, in connexion with which we had a school; and we have gone on from that time to this, enlarging, and improving, and developing our institutions, until at last it became apparent that we must enlarge the scene of our labours. About eight or nine years ago I saw these dilapidated ruinous houses in Leicester-square, and I longed for their possession, because they had what we required—a free unobstructed light, an open space, and a northern aspect. It was certainly a most unpromising neighbourhood, and the houses might have formed the subject for one of Dickens's ghost stories. To speak in Johnsonian language, notwithstanding their ruinous dilapidated appearance, there were potentialities of goodness and convenience in them; and the subject was brought before the Committee. We had, however, a long lease of the house in Soho, and we were not in such flourishing circumstances as would justify us in entering upon new premises. Time went on, but I never neglected this matter, and from time to time brought it under the notice of the Committee. At length, after much discussion, a favourable decision was arrived at, when a new discouragement arose in the opposition which showed itself where only co-operation and support might well have been expected. To some extent this opposition was due to a disinclination to change and a want of appreciation of the advantages of the new site; but with others it was so persistent and altogether unreasonable as almost to make us sympathise with Dr. Johnson, who told a man whom he failed to convince, "Sir, you must have taken great pains with yourself, because you could not have been born so stupid." All obstacles, however, have been overcome, and we have the satisfaction of presenting this day to the Committee a building as perfectly adapted for the purpose as a building could be, and free from all debt. (Cheers.) We are all greatly indebted to the gentlemen who have been associated with me—Mr. Tomes, Captain Sercombe, Mr. Hills, and Mr. Parkinson,—and with such a combination I think we may point with satisfaction to the result as seen in the building to which we have been inducted this day."

ARNOLD ON DIAPEDESIS.

Some interesting observations on the phenomena of the passage of blood corpuscles through the walls of vessels have been lately made by Dr. J. Arnold, of Heidelberg (*Virchow's Archiv.*, 1873, lviii.). If part of a frog's tongue in which a vein has been for some time ligatured and then released be examined under the microscope, two kinds of projections of the walls of the capillaries are seen. The first are due to the blood corpuscles in different stages of their progress through the vessel-walls, and the second are produced by small prominences of the walls themselves, and are lined with endothelium. The blood corpuscles pass out of the vessels through smaller and larger openings between the endothelial cells, which Arnold believes, in agreement with Cohnheim, to preexist in normal vessels as little puncta, which are visible in silver preparations on the outlines of the endothelium.

If a nitrate of silver solution be injected into the vessels of the inflamed frog's tongue after they have been ligatured for twenty-four hours, numerous dark, sharply defined points and circles are seen between the endothelial cells, principally where their sharp corners meet. There is merely a trace of a lumen in the points, while in the circles it is very distinct. Arnold calls the former "stigmata," the latter "stromata." The tissues external to the vessels are stained with the silver at points corresponding to both, and if coloured size be injected into the vessels numerous tinted prominences appear on their walls, with an indistinct outline externally, while the red corpuscles which sometimes project through the wall are surrounded with the size. Vermilion mixed with the latter was found outside the vessels. There can be no doubt, therefore, with the above facts before us, that there are distinct apertures in the walls of the vessels through which blood corpuscles can pass.

The forces which produce diapedesis appear to be (1) the increased tension of the vessel-wall, by which the stomata are enlarged, and (2) the current produced by fluid streaming out

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through the apertures themselves into the neighbouring tissues. Arnold observed that after a corpuscle had passed through any part of the wall of a vessel it was followed by a stream of fluid, which lasted until the opening was closed by another corpuscle entering it. As many as fifty corpuscles may pass through the same aperture one after another, and the rapidity of their transit varies enormously. Red and white corpuscles may pass through the same opening in turn, but in the parts observed by Arnold—namely, the capillaries intermediate between those which were quite pervious and those completely closed—many more red corpuscles passed out than white.

Arnold also discusses the changes which the red corpuscles undergo after diapedesis in the tissues around the vessels. The first thing noticed is that they either resume their disc shape, the nuclei being also visible, or else they remain pear-shaped or become round, and more deeply coloured, and then no nuclei can be made out in them. They also become pushed further and further away from the vessels by the streams of fluid issuing from the "stomata," and lie sometimes in groups and sometimes isolated in the tissues. Finally, their colouring matter disappears from the periphery towards the centre, until at length only fine granular matter remains to show where they were, and this also is absorbed later on. Those corpuscles which lie in groups assume at the commencement of the absorption of their colouring matter the appearances which have been described by some authors as cells containing blood corpuscles (*blutkörperchenhaltige Zellen*); but Arnold considers that the clear margin surrounding such "cells" is merely due either to the fusion of the "stomata" of the agglomerated corpuscles or else to the presence of a layer of protoplasm brought by the current from without.

A formation of pigment sometimes follows these changes in the red corpuscles. It is either diffuse or granular, and of a brown colour. The total removal of colouring matter from the corpuscles takes several days. Pigment is found in the second or third week. The red corpuscles may probably enter the lymphatic vessels, since after a time pigmented corpuscles make their appearance in the blood; but Arnold could never observe an instance of their re-entrance into the blood-vessels after once leaving them.

THE NEW DIRECTOR-GENERAL FOR THE ARMY MEDICAL DEPARTMENT.

We have been somewhat surprised to hear that doubts have lately been expressed as to the gentleman who is to succeed Sir Galbraith Logan as Director-General of the Army Medical Department. The time having now so nearly arrived when the change will have to be made, we think we may confidently assert that the choice has fallen on Sir William Muir, K.C.B., M.D., the present head of the sanitary branch of the department at head-quarters.

Sir William Muir entered the Service in 1842 as Assistant-Surgeon, and although rather over the average time in obtaining his promotion to the rank of Surgeon, was gazetted as Deputy Inspector-General and Inspector-General of Hospitals with unexampled rapidity. He served throughout the Crimean campaign of 1854-55, including the battles of Alma and Inkerman, the assaults of the Redan on June 18 and September 8, and the siege and fall of Sebastopol, during which time he was attached to the 33rd, the Duke of Wellington's Regiment. For these services he received the medal and three clasps, the Cross of the Legion of Honour, and the Turkish medal. He was also through the Indian mutiny in 1857-58, and was Principal Medical Officer of the China expeditionary force under Sir Hope Grant in 1860, on which occasion he was mentioned in dispatches as having most ably conducted the medical arrangements of the campaign. In recognition of these services he was promoted to the rank of Inspector-General, nominated a Commander of the Bath, and received a medal with clasps for the Taku forts and Pekin.

It will thus be seen that the coming Director-General has had a large experience of active service, and in addition has filled the responsible position of Principal Medical Officer of the Bengal Presidency. He brings, therefore, with him to the chair a perfect knowledge of the duties of the department over which he will be called upon to preside, both executive and administrative. He will assume office, moreover, at a peculiarly important period for the Army Medical Department: the change of Ministry will have opened the door for some modifications in the Warrant propounded for the Service by Mr. Cardwell, and it may be that the energetic advice of the new chief will enable the present Secretary of State for War to develope a more satisfactory state of affairs, and settle the vexed question of unification, and similar grievances.

Some of our contemporaries have been hinting at a contemplated reduction of the salary of the new Director-General: what can have given rise to such an absurd suggestion we are at a loss to imagine. Even the late Government would have hesitated before carrying out such a ridiculous piece of economy, and their successors, who stand pledged to no system of frugality at the cost of competence, are not likely to harbour the idea. The sum as it stands is so little in advance of the pay and allowances of a Surgeon-General that to reduce it would be to make the post, with all its responsibilities and anxieties, no better worth possessing than the higher grade of the Service.

We sincerely trust that the seven years' administration of Sir William Muir in his new capacity may be marked by uninterrupted peace; but should sterner necessities arise, we may be certain, from the admirable manner in which all the sanitary arrangements for the Gold Coast expedition were carried out under his immediate supervision, that he will be fully equal to the occasion. We congratulate the Department upon the successor who will now be called upon to replace the amiable gentleman who is about to lay down the cares of office, and we feel assured that under his vigorous administration its efficiency will be fully maintained, whilst the individual interests of none of its members will be allowed to suffer.

ROYAL IRISH ACADEMY: ELECTION OF PRESIDENT.

The stated annual meeting of this learned body, for the election of officers, was held on Monday evening, March 16, the chair being occupied by the Rev. J. H. Jellett, Senior Fellow of Trinity College, Dublin, the out-going President, who had just completed his five-years term of office. The Rev. Dr. Haughton proposed that Dr. William Stokes be elected President. He had been Dr. Stokes's pupil in medicine, and whatever he knew of scientific medicine he had acquired under his teaching, so that he spoke from personal knowledge of Dr. Stokes's peculiar qualifications to fill the chair which Professor Jellett, to the regret of the Academy, was about to vacate. Formerly it was considered necessary that the President should be an astronomer and a mathematician, but now, thanks to the labours of Dr. Stokes and others like him, medicine had attained such a position in the estimation of men of literature and science, that they that evening eagerly sought to have in the presidential chair a member of the medical profession. Dr. Ferguson, in seconding the motion, said he did so with much pleasure, not because Dr. Stokes occupied the front rank in the medical profession and was the author of works that would live long after all present had passed away, but because he possessed one quality which conferred great benefits on any public body with which it was brought into contact—namely, that power of imparting his own enthusiasm in the pursuit of knowledge to those with whom he held intercourse. With him the love of truth came first, and of

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this, his native land, and its honour, next, before every other consideration. He knew as well how to repress as how to excite, and under his presidency nothing unworthy of the dignity of the Academy would flourish, and they might fear nothing for the perfect independence of the institution. The following officers were then ballotted for and declared duly elected:—*President:* Dr. Stokes, D.C.L., F.R.S. *Honorary Members—Department of Science:* Marcellin Berthelot, Paris; Johan Von Lamont, Munich; Thomas Henry Huxley, London. *Committee of Science:* W. K. Sullivan, Ph.D., Sec. of the Academy; Rev. Samuel Haughton, M.D., F.R.S. (Vice-President); Robert McDonnell, M.D., F.R.S.; E. Perceval Wright, M.D., F.L.S.; Robert S. Ball, LL.D., F.R.S.; David Moore, Ph.D., F.L.S.; John Casey, LL.D.; Thomas Hayden, F.R.C.S.I.; Rev. J. H. Jellett, B.D., S.F.T.C.D.; Alex. MacAlister, L.R.C.S.I.; and John Purser, M.A. *Committee of Polite Literature and Antiquities:* John T. Gilbert, F.S.A. (Librarian); John Kells Ingram, LL.D., Sec. of Council; Samuel Ferguson, LL.D. (Vice-President); William J. O'Donnovan, LL.D.; Alex. G. Richey, LL.D.; John R. Garstin, LL.B., F.S.A. (Treasurer); Rev. William Reeves, D.D.; Lord Talbot de Malahide, F.R.S. (Vice-President); Rev. Thaddeus O'Mahony, D.D., and D. F. MacCarthy, Esq. The report for the past year was afterwards read by Dr. Ingram, Honorary Secretary, and referred to the deaths, among others, of Dr. William Barker and of Professor R. W. Smith. Professor Jellett having vacated the President's chair, it was taken by Dr. Stokes, who said he had to thank the Academy most sincerely, and particularly the ex-President for all he had done for the Academy generally, and the gentlemen who had proposed him. It was true he had long worked for science, and he had worked without looking for reward—he had worked for love, and he believed that was the best way to work at science; but when reward came it was gilded with the approbation of their fellow-men, and it was then doubly precious. He was not a young man, but if God spared his life it would be devoted to the interests of the Academy, and he trusted that under his hands it would not decline from the position it had attained under the presidency of the excellent and illustrious men who had been his predecessors.

WORKING OF THE SANITARY ACTS.

The defects in the working of the Sanitary Acts, particularly in counties, are constantly becoming the source of discontent and anxiety on the part of those appointed to carry out their provisions. The following remarks are embodied in the report of Dr. Edmund F. Syson, Medical Officer of Health of the Huntingdon District, to the United Sanitary Authorities of that county:—

"I am unable to lay before you a statistical account of the health of the several districts. The Public Health Act no doubt was framed with a view to this being done by each medical officer of health in the kingdom, but unfortunately its authors neglected to provide for the necessary returns from the district registrars. It is to be hoped that immediately the new Parliament meets this omission will be rectified, and at the same time provision made for regular returns of all cases of infectious diseases from medical men, and for payment for such returns. To stamp out or draw a cordon round infectious diseases the earliest information possible is necessary. At present I have only been able occasionally, through the kindness of several medical practitioners, to obtain this information. I hope such of you as are in Parliament, or have influence with your members, will urge the importance of regular and early sickness and death returns being provided as part of any scheme for national administrative sanitary reform. Almost equally important is it that a series or set of forms for notices, reports, and returns should be issued by the Local Government Board. At present hardly any two districts, or even unions, use the same forms. For comparative purposes it is absolutely necessary that all elementary returns should be made on the same bases. In minor administrative matters each individual district may well be left to use its own judgment, but the desirability of national uniformity in all returns relating to births, deaths, and sickness will at once be apparent to all of you. I think also it would be well if all rural sanitary authorities were endowed with the powers possessed by urban authorities. These powers are mainly permissive, but many of them are at times urgently needed by rural authorities. I trust any new Sanitary Act will give you power over houses, or parts of houses, unfit for human habitation, as well as extended jurisdiction as to overcrowding, and power to order the closing and disuse of impure sources of water supplies. I should also be glad to see the submission of all building plans to you for approval made compulsory, and control given to sanitary authorities over all drains, privies, ashpits, and water-closets. An amended Sanitary Act is a prominent part of the programme for next session, and the varied experience of sanitary authorities throughout the country will be of great practical service to our legislators. If an interleaved copy of any proposed Sanitary Amendment Act were sent to chairmen of each sanitary authority for comment, I think an Act could be framed which would give general satisfaction."

INSTRUCTION IN MENTAL DISEASES.

It has long been felt and acknowledged that the means of affording students of medicine a knowledge of mental diseases is altogether inadequate and most unsatisfactory. We are glad to perceive that in the last report of the Committee of Visitors of the County Lunatic Asylum at Hanwell the following very valuable observations are appended with respect to clinical instruction in lunacy, which cannot be too warmly recommended to the visiting committees of other public asylums:—

"In 1872, Dr. Rayner, with the concurrence of the Committee accepted the office of Lecturer on Psychological Medicine at the Middlesex Hospital, entailing the duty of delivering twelve lectures during three summer months, and they have recently given him permission to give practical instruction on the male side to a limited number of pupils. In both instances the Committee satisfied themselves that these concessions would in no degree interfere with the discharge of Dr. Rayner's duties in the Asylum; and the restrictions which they have prescribed will, they believe, prevent any inconvenience or interference with the service. The Committee have been induced to sanction these steps from a sense of the importance of promoting the study and treatment of mental disorders, and a conviction of the slender and desultory facilities at present afforded to students for acquiring practical instruction in this special branch of the profession, which, as yet, forms no recognised and obligatory part of the curriculum of medical education. Whether lunacy is or is not increasing in extent, pauper lunatics are increasing numerically with the increase of population. Asylums are extending their accommodation, and there is an increased demand for medical officers, while the want of opportunities for qualifying themselves for first appointments by practical instruction must be too patent to committees when examining the testimonials of candidates for assistant medical officers. The Committee believe that county asylums afford a large field of experience for clinical observation and for administrative information, and that any effort to supply, in however limited a degree, an admitted deficiency in medical education, is deserving of consideration and support. The Committee bear willing testimony to the able and zealous manner in which Mr. Peeke Richards and Dr. Rayner, the medical superintendents, continue to perform the responsible and onerous duties connected with their appointments, and their cordial co-operation in all measures for the advantage of the patients, and the welfare of the institution generally."

PROBATIONARY WARDS FOR INFECTIOUS DISEASES.

The Medical Officer of the Mitcham Schools, in his report to the School Committee of the Holborn Union, draws attention to a very serious defect in the sanitary arrangements of these schools. He says:—

"No probationary or infectious wards have ever yet been provided, and hitherto the children have fortunately escaped any serious outbreak of infectious diseases, with the exception of ophthalmia. The necessity for such wards has just been practically proved by an outbreak of measles occurring in children sent from the London workhouse, where the disease

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was prevalent, and I was obliged to pass the children at once into the schools."

The guardians, we are glad to say, have shown their appreciation and the importance of the medical officer's suggestion by agreeing to at once provide the necessary probationary wards. It is surprising that accommodation so necessary for the protection of the health of the children has been so long delayed.

DEATH OF DR. JOULIN.

Our French correspondent writes thus, under date March 18:

"Death has just removed from us one of the ablest obstetricians of Paris, in the person of Dr. Joulin, who was yesterday suddenly seized with cerebral hæmorrhage, which carried him off in a few hours. The deceased was still in the prime of life when the melancholy event occurred, and it may be said he died at his post, for he was holding his consultations at the time. Dr. Joulin took his degree in 1858, and became an *agrégé* of the Faculty of Medicine in 1863. He is the author of several works on obstetric medicine and surgery, and founded, about two years ago, a journal of obstetrics and gynæcology, of which he was the principal editor and sole proprietor."

LETTER FROM THE GOLD COAST.

(*From our Special Correspondent.*)

Cape Coast Castle, February 12.

Notes of some Cases Treated on Board the "Victor Emmanuel."

Case 1.—Private T. A., 2nd Battalion Rifle Brigade, aged 35, and with fifteen years' service, arrived at Cape Coast Castle on December 10, and disembarked on January 2, proceeding the same day up country towards the Prah. On the 9th, he arrived at Yan Coomassie-Assim, where he was engaged for several days in cutting the bush and burning the jungle. On the 15th he was attacked with pains in the head, legs, and back, nausea, and vomiting, and "cold sweats breaking out all over him." In this state he continued throughout the greater part of the day, until towards evening, when a hot stage of great intensity succeeded, which lasted all night. About 3 a.m. a profuse perspiration ended the hot stage. On the 16th, about 3 p.m., he had a return of the above phenomena of equal intensity and duration. On the 17th, 18th, and 19th he had similar attacks, the worst of all having occurred on the 19th. On the evening of the 20th he arrived at Cape Coast Castle, and was sent next day on board H.M. Hospital-ship *Victor Emmanuel*. Temperature on arrival there was normal, pulse 84, respiration 18; but he was very pale, weak, and anæmic. Quinine was administered as a prophylactic against future attacks, with generous diet, beer, and lime-juice. On the 26th he was sufficiently convalescent to embark on board the hired transport *Thames* for St. Vincent, Cape de Verde Islands, *en route* for England.

Case 2.—Private J. H., 2nd Battalion Rifle Brigade, aged 24, and with three years' service, arrived at Cape Coast Castle on December 10, and disembarked on January 2. He was left behind his regiment, after having completed the first march, on account of an ulcer on the right tibia. Sent to Connor's-hill Hospital for treatment, he remained there until January 18, when he was transferred as a convalescent to H.M. Hospital-ship *Victor Emmanuel*. While on shore the ulcer had cicatrised, and he did not suffer at all from fever. On the morning of the 19th he complained of lassitude and general malaise, with severe headache and pains in the back and loins. He soon afterwards became hot and dry, and in this condition he remained for some hours, when a profuse perspiration broke out all over him. There seemed in this case to be a complete absence of anything approaching a cold stage. At 5 p.m. his temperature was 104°, pulse 120, respiration 19; at 9 p.m. his pulse was 110, and temperature 102°. At 7 a.m. of January 20 his temperature was 101°, pulse 100, respiration 18. He had passed a restless and uncomfortable night. At noon his temperature was 99·6° Fahr., pulse 100, and respiration 17; at 5 p.m. his temperature was 101°, pulse 82, and skin bathed in profuse perspiration. January 21: He passed a good night, and awoke refreshed; tongue cleaned, skin cool and moist, pulse 82, respiration 16, temperature 98·6°. The quinine prescribed yesterday—five grains every fourth hour—was reduced to the same quantity twice a day. At 4 p.m. the temperature had risen to 99·8°, pulse being 86, and respiration 19. January 22: Had a relapse during the night, mild in comparison with the former attack; no cold stage; hot stage short and soon merging into sweating; temperature at 9.30 a.m. 98·5°, pulse 62, skin cool and very moist. To have ten grains of quinine at 11 a.m., and ten grains at 3 p.m. At 5 p.m. temperature was 98·8°, pulse 80, respiration 18. January 23: Had no relapse last night; temperature at 9 a.m. 97·8°, pulse 62, respiration 16, bowels confined. Ordered a dose of purgative medicine. Temperature at 5 p.m. was 98·8°, pulse 86, respiration 18; continued quinine. January 24: Had a good night until about 11 p.m., when headache came on, attended with slight heat of skin and restlessness. Temperature at 9 a.m. 97·6°, pulse 81, respiration 18. To have five grains of quinine twice a day. Passed a medical board, and left for England on the 26th by the hired transport *Thames*.

Case 3.—Private J. G., 2nd Battalion Rifle Brigade, aged 25, service three years and a half. Transferred to H.M. Hospital-ship *Victor Emmanuel* on the evening of January 23, having landed on the 2nd. On the 7th he had his first attack of fever, attended at the outset with some nausea and vomiting, but without any cold stage, and which would appear to have lasted four days. He was very pale and weak on admission, but under the use of quinine as a prophylactic, with generous diet, lime-juice, and porter, he improved sufficiently to be sent home for change of climate on the 26th.

Cases 4 to 10 are almost identical in history and symptoms with the last case. The men belonged to the same corps, and were attacked in like manner at different stages on the upward march, coming down country in a very weakly and anæmic state. Six were discharged to the convalescent division on board ship, and four were invalided home.

Case 11.—Private J. H., 2nd Battalion 23rd Fusiliers, aged 24, with six years' service, arrived at Cape Coast Castle on December 12, and landed on January 5 with the first detachment of his corps. This wing marched up country fourteen miles, and halted for five days, being employed during this time in cutting down and burning the jungle. Was ordered back, and re-embarked on board the *Tamar* on January 12. On the 23rd, when on sentry, Private J. H. suddenly became faint, with noise in the ears, dimness of vision, and vomiting of green bilious matter. This seizure was followed by smart pyrexial symptoms. Removed to the *Victor Emmanuel* on the evening of the 25th. He was in a state of high fever; temperature 104°; pulse small, wiry, and very compressible; skin hot; eyes congested; and urgent vomiting. At 9 a.m. of the 26th the temperature was still 104·6°. As his bowels were confined, he was ordered a purgative at once, and took thirty grains of quinine during the day. As this man had some sponginess of the gums, he was ordered lime-juice as a drink. The evening temperature was 104·8°, pulse 87, respirations 30. January 27: At 8 a.m. temperature was 102°, pulse 96, respiration 19; at 5 p.m. temperature was 103·5°, pulse 101, respiration 21. 28th: Morning temperature 101·5°, pulse 92, respiration 19; evening temperature 101°. 29th: Morning temperature 100°, pulse 86, respiration 18; at 5 p.m. temperature was 98·4°. 30th: Passed a very good night, and feels better to-day; temperature at 9 a.m. 98·4°, pulse 82; skin quite cool; tongue quite clean; gums becoming much less spongy. Quinine was reduced on the 27th to twenty grains, on the 28th to ten grains, and on the 30th to five grains daily, and he continued to take the latter quantity during his stay in hospital. His convalescence was very tedious, and he was discharged on February 5 to embark on board the hired steam transport *Sprite* for St. Vincent, Cape de Verde Islands, *en route* for England.

Case 12.—Private W. L., 2nd Battalion 23rd Fusiliers, aged 41, service sixteen years. Transferred, on January 28, from H.M. Steam Troopship *Tamar* to H.M. Hospital-ship *Victor Emmanuel*, suffering from debility after "coast fever." Arrived at Cape Coast on December 12; disembarked on January 6; marched to Acroful (two marches), where he spent five days cutting and burning jungle. Re-embarked on 14th, and since then he has been more or less out of sorts, suffering from loss of appetite, disinclination for food, and frontal headache. On January 26 he was attacked with sharp febrile symptoms, ushered in by sickness, bilious vomiting, severe headache, and

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tendency to syncope. He fell down and had to be carried to hospital. The cold stage was ill-defined and very short, but the hot and sweating stages were well marked. On admission to the *Victor Emmanuel* two days later he presented a careworn, anxious look, and was very weak, but both temperature and pulse were normal. Under the use of quinine in moderate doses, with generous diet and stimulants, he improved sufficiently to embark on board the *Sprite* on February 5 for St. Vincent, Cape de Verde, *en route* for England.

Cases 13 to 20 are very much the same in history as the above. They occurred in men of the wing of the 2nd Battalion of the 23rd Regiment which had disembarked, and again embarked on board the *Tamar*. The period of incubation of the malarial poison was within a fortnight in all; the cold stage either badly marked or altogether absent; irritability of the stomach, with bilious vomiting, the rule; frontal headache during the existence of the fever constant; pyrexial symptoms high in every instance; duration from two to four or five days. In several cases exacerbations were distinctly to be noticed towards evening, with less pronounced remissions towards morning. Diarrhœa was present in a few instances, but constipation was more commonly met with. In some of these cases there was a very remarkable condition of the tongue, which towards the centre presented the appearance of having been stained by ink or black-currant jelly; and it is also worthy of note that this peculiarity was almost, if not altogether, confined to the fever patients of one corps—the 2nd Battalion of the 23rd Fusiliers—several of whom exhibited evidences of a scorbutic taint.

Considering the length of time that the fever lasted, the debility and pallor of the men were very great, and convalescence was in every instance more or less protracted. They were all either invalided home for change of climate or discharged to the convalescent division of the hospital-ship, not a single individual being sent on shore again for duty.

I had almost forgotten to mention that in some cases a peculiarly disagreeable odour was noticed in the perspiration and in the exhalations from the skin after the fever had passed away.

In all these cases the ice manufactured on board the hospital-ship was invaluable as a therapeutic agent, while to the poor fever-stricken patients the luxury of iced soda-water, lemonade, and pure water condensed and filtered on board, may be readily conceived. The ice-machine has been a great success up to the present time, and continues to turn out daily 300 lbs. of ice at an expenditure of about 400 lbs. of coal.

HEALTH OF LAMBETH.—Dr. McCormack, the Medical Officer of Health, in his last report to the Lambeth Vestry, stated that although the death-rate during the four weeks ending the 7th inst. (there had been 400 deaths in Lambeth) was somewhat higher than in the previous four weeks, it was still considerably lower than that of any other district of the metropolis, or that of London generally.

HEALTH OF SCOTLAND.—The Registrar-General states that during the month of February last there were registered in the eight principal towns of Scotland 2464 deaths—1246 males and 1218 females. Of these 979, or 40 per cent. were of children under five years of age. In Perth, 30 per cent. of the persons who died were under five years of age; in Aberdeen, 33 per cent.; in Edinburgh, 35 per cent.; in Greenock, 38 per cent.; in Glasgow, 41 per cent.; in Leith, 42 per cent.; in Dundee, 44 per cent.; and in Paisley, 46 per cent. The zymotic (epidemic and contagious) class of diseases proved fatal to 535 persons, thus constituting 22 per cent. of the whole mortality. This rate was exceeded in Dundee and Paisley from the prevalence of scarlatina, and in Aberdeen from that of measles and fever combined. The most fatal of the epidemics was scarlatina, which caused 166 deaths, or 6·7 per cent. of the whole mortality. The towns which suffered most from this disease were Glasgow, Greenock, Dundee, and Paisley, where 6·7, 8·4, 12·7, and 15·4 per cent. of their respective mortalities resulted therefrom. Fever caused 64 deaths. Of these 22 were tabulated as typhus, 36 as enteric, 1 as simple continued, and 5 as infantile remittent fever. Small-pox, which has been somewhat prevalent in Glasgow and Greenock during the last six months, appears to be now on the decrease, there having been recorded only 41 deaths (of which 32 occurred in Glasgow and 6 in Greenock), as against 70 in January and 94 in December.

ABSTRACT OF

THE CROONIAN LECTURES.

DELIVERED AT THE ROYAL COLLEGE OF PHYSICIANS.

By CHARLES MURCHISON, M.D., F.R.C.P., F.R.S., LL.D.,
Physician to St. Thomas's Hospital.

ON FUNCTIONAL DISEASES OF THE LIVER.

LECTURE II.

AFTER a brief reference to the subjects discussed in the first lecture, and especially to the obsolete classification of functional diseases of the liver and to the classification which he had substituted for it, Dr. Murchison proceeded to state that the time before him was too short to discuss all the points which he had proposed for consideration. He would therefore dwell upon the important ones only.

1. The first division in the classified list given in the first lecture—namely, *Abnormal Nutrition*—must be passed over with a simple reference. Corpulence and emaciation, it had been intended to show, may equally result from functional derangement of the liver. Under this head diabetes would fall for discussion, for it is merely a derangement of the glycogenic function of the liver.

2. *Abnormal Elimination.*—It was pointed out in the first lecture that the bile is partly excrementitious. The general opinion is that it is the retention of bile which causes the serious symptoms—collectively constituting what is known as the "typhoid state"—so often seen before death in cases of fatal jaundice, as in cirrhosis and acute atrophy of the liver. Experiments go to show that the injection of bile into the subcutaneous tissue of dogs is followed by death, but the result is probably due to septic poisoning by the products of decomposing mucus. The fact is that pure bile injected into the veins does not kill. But we do not require experiment to settle this question. Everybody knows that deep jaundice may exist for months without the appearance of symptoms of poisoning, provided the kidneys and other excretory apparatus are discharging their functions. Not long ago, Dr. Austin Flint, jun., brought forward the doctrine that the cerebral symptoms in jaundice are due to cholestearæmia, or the presence of cholestearine in the blood. He believes that cholestearine is normally converted into a substance which he calls "stercorine," and is thrown out, and that, if this does not happen, the cholestearine acts as a powerful poison on the blood. The same objection applies here as in the former theory—in cases of chronic jaundice from obstruction of the common bile-duct the cholestearine is not discharged at all, and yet no symptoms may arise. It is clear, therefore, that the typhoid symptoms are not due to bile or to any of its constituents, but to something else. The condition generally referred to diminution of bile is familiar as a combination of constipation, pale stools, furred tongue, dingy conjunctivæ, languor, headache, drowsiness, etc., with frequent and heavy deposits of lithates in the urine. These symptoms frequently supervene upon over-feeding, lazy habits, etc., and they are generally referred to torpor of the liver. There is a certain amount of truth in this, as they are connected, perhaps, with fulness of the liver, but their direct cause is imperfect elimination of the kidneys.

3. *Abnormal Disintegration.*—Modern researches go to prove that one of the chief functional diseases of the liver is an imperfect performance of its disintegrating function. In acute atrophy of the liver we find a diminution in the amount of urea excreted by the patient, and leucine and tyrosine occur in place of it and in the liver. This substitution takes place in other diseases of the liver than acute atrophy, as in certain cases of obstruction of the bile-duct and in cirrhosis. Dr. Murchison has observed the same in some cases of typhoid fever. In all these instances the change in the urine is referable to destruction of liver-tissue. But there are more frequent changes than that mentioned, in which the abnormal products are lithates, uric acid, etc. It is unnecessary to say that the presence of lithates in the urine does not indicate disease of the kidney. Except in cases of decomposition from long standing, etc., these deposits of lithates ought to be regarded as a sign of disease of the liver. They are seen in the febrile state, when increased elimination is going on. They are seen in many structural diseases of the liver, especially such as are attended with congestion, as early cirrhosis. They are seen in certain functional diseases of the liver, and it is to

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the occurrence of deposits of lithates in this connexion that we must now refer at some length, under the head of *Lithuria*. Dr. Murchison proposes the name of *Lithæmia* for this condition of the system.

Lithæmia.—When oxidation is imperfect in the liver there is a production of lithates instead of urea. There are many persons in perfectly good health who cannot indulge their appetites, or even eat what is called a fashionable dinner, without passing a quantity of lithates next day. The liver has too much work thrown upon it, and the imperfectly oxidised products are thrown out by the kidneys. But there are other persons who have this symptom constantly, either from frequently repeated errors of excess, or from some natural weakness, which may, perhaps, be hereditary. The liver in these persons seems to be just able to perform its functions under the most favourable circumstances, like a small lung in others. The failure of the liver is evidenced by the appearance of lithates, generally in deposits, though not invariably. These deposits may continue to occur frequently for years without causing discomfort, but about middle life they accumulate, and attract attention. The symptoms are all the more likely to occur if the man is a free liver, or lazy in his habits, or devoted to hard mental work. A series of phenomena, which are sufficiently familiar, now make their appearance—dyspepsia, flatulence, fulness of the stomach, heartburn, furred tongue, anorexia (alternating perhaps with a good appetite), viscid mucus in the fauces, constipation (interrupted occasionally by diarrhœa), palpitation of the heart, frontal headache at times, restless nights, bad dreams, vertigo, etc.; and all these perhaps aggravated by diet. The patient gives up one luxury after another—beer, port, Madeira, "dry" sherry, and claret, and betakes himself to spirits and water. Finally, unless he is deterred by the popular delusion that alcohol in some form or other is necessary for digestion, he drinks nothing but simple water, and finds himself all the better for the change. So with his food: he has to restrict himself to a plain diet, and that in moderate quantity, while he probably finds that saccharine and oleaginous matters disagree with him. Digestion is in these cases generally best in the morning. The condition described is a very common one in this country.

When the train of symptoms which have been enumerated occurs in gouty persons, they are said to be suffering from latent or anomalous *gout*. In fact, gout itself is but one of the results of lithæmia. Thanks to the researches of Garrod, we now know the pathology of local inflammations in gout. The production of these local inflammations is undoubtedly favoured by the presence of kidney disease, but the subjects are, as a rule, perfectly healthy at first. Acute gout is but a local accident in persons the functions of whose livers are persistently deranged; and as the liver disease may, as we saw, be transmitted hereditarily, so may the gout, of which it is the cause.

Urinary Calculi.—The great majority of urinary calculi are at first lithic acid. The circumstances which favour the formation of these are an acid condition of urine, and more especially a free excretion of uric acid. There is good reason, also, to believe that other renal calculi have a hepatic origin—as, for example, cystine and xanthine calculi. Oxalate of lime occurs in a large number of urinary calculi, and may be connected with functional disease of the liver. Dr. Owen Rees contended, in 1858, that oxalic acid is not formed in the blood, but in the kidneys; but the evidence against this view probably renders it untenable in the present day, for oxalic acid has been found in blood, mucus, saliva, etc. Impeded metamorphosis of food and nitrogenous substances generally is the chief source of oxalic acid, and it is not unlikely that when much lithic acid is formed in the liver some of it may become oxalic, for the former may now be converted into the latter by the chemist. But, whether or not, there is no doubt the liver is the organ chiefly at fault in calculous disorders. Patients suffering from these are undoubtedly benefited more permanently by the waters of Püllna, Carlsbad, and Friedrichshall than by the alkaline waters of Vichy and Ems.

Biliary Calculi are another result of abnormal disintegration. They occur chiefly in persons of middle or advanced life who have lived freely, been fond of saccharine food, etc. Dr. Murchison has frequently observed the concurrence of the lithic acid diathesis and gall-stones—so frequently, that he cannot, like Frerichs, regard it as accidental. Both Budd and Trousseau support Dr. Murchison's view.

Chronic Degeneration of the Kidneys.—Having seen the close connexion between the liver and kidneys, we may expect derangements of the former to cause disease of the latter; and so we frequently find functional derangements of the liver accompanied by contracted kidney. Dr. George Johnson has especially drawn attention to the connexion between contracted kidney and gout, over-eating, and dyspepsia, with discharge of acid urates. The degeneration of the kidneys is here a consequence. Dr. Murchison can testify to the truth of this statement of Dr. Johnson's, after carefully watching many cases of the kind. The first stage in these patients is what has just been called "lithæmia."

Structural Diseases of the Liver are manifestly another very probable result of the functional disease of the organ under consideration. Fatty liver has been found under the circumstances, and with it perhaps general corpulence. Again, in many cases of jaundice occurring in middle life there is a history of gout and lithæmia. Cirrhosis also is referable in some cases to previous lithæmia only, or to gout, whence its name "chronic gouty hepatitis." And a careful inquiry as to previous health in cases of cancer of the liver will very frequently reveal a similar history. It is not more than might be expected that such disease of the cells as cancer should result from their frequent functional disturbance.

Degeneration of Tissue throughout the Body.—Neither is this result a remarkable one. In no structure is it more marked than in the heart and the coats of arteries, lying at the bottom of fatty degeneration of the heart, paralysis, and other serious diseases. In many of the number, not in all, the disease must be referred to the liver. What is in some men but a form of senile decay may happen prematurely in others. Dr. Murchison has observed that persons given to over-eating and subject to passing urates are liable to fatty degeneration of organs, to valvular disease, and to atheroma without a previous history of rheumatism.

Local Inflammations.—Persons in good health have but little liability to local inflammations. Only a very small number of the persons exposed to the exciting causes of pneumonia take the disease, and those who do so will be found to have previously suffered from bad health. Dr. Todd insisted upon this very strongly—that such persons have a gouty or a strumous diathesis. Of the effect of gout there can be no question; but lithæmia causes a similar predisposition. Dr. Murchison has observed that the subjects of lithæmia are liable to "febrile colds," even though of robust build. When the pyrexia comes on, the lithates are found to have disappeared; when it passes off, they are thrown out in quantities: so that it is probable that the retention of the lithates determined the local disease.

From all these considerations it is evident that abnormal disintegration in the liver may cause most serious disorders of many kinds.

There now remain for discussion a certain number of more general conditions which do not form distinct and definite diseases. These will be taken under the head of the system to which they belong. Commencing with derangements of the organs of digestion, we pass over those of the tongue, appetite, and taste; over flatulence, constipation, diarrhœa, vitiated stools, intestinal hæmorrhage, hæmorrhoids, and hepatic pain, and come to jaundice.

In considering whether *jaundice* may result from functional disease of the liver, we must enter into the pathology of the symptom. Jaundice is referable either to impediment or no impediment. In the former case there is no difficulty in accounting for its appearance. At the beginning of this century Dr. Saunders proved by the experiment of ligaturing the common duct that the bile was absorbed into the circulation. But there is more difficulty where no obstruction exists. Morgagni and others believed that there is suppression of a secretion, the bile being preformed in the blood. Dr. Saunders opposed this view, yet it remains the one generally accepted at the present day. Dr. Budd believes that the bile-acids, and not the pigments, are manufactured in the liver. In the first lecture certain proofs were given that none of the constituents of the bile are preformed in the blood. The cases of jaundice without obstruction are accounted for by Frerichs on the explanation that a large portion of the bile secreted is normally absorbed in the bowels, and that this process may be so interfered with that the bile-pigments may accumulate in the blood and cause jaundice. This view is supported by the observation that the bile-acids may be transformed into bile-pigments. Experiments on the subject are much at variance, but, on the whole, Frerichs has most supporters. However, if

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we accept the explanation offered in the first lecture of re-absorption and metamorphosis of the bile, we shall be able to dispense with that of Frerichs. If the metamorphosis does not happen, jaundice ensues. Now, it is in the very cases where it might be expected, on this explanation, that jaundice is found—in blood-poisoning, yellow fever, in nervous states, in pneumonia, etc. From obstructive jaundice it differs in this respect, that the bile enters the bowel and is absorbed, but, after absorption, remains unchanged. The jaundice is naturally very much less deep than in the other form.

Derangements of the Nervous System.—Headache is a not infrequent symptom of functional disease of the liver. Most often it is a dull frontal headache, felt on waking in the morning, or lasting longer. It is common in the subjects of lithæmia, especially after errors of diet, accompanied with pain over the liver and flatulence. From this headache we must carefully distinguish megrim, which is a pure neuralgia. The name "bilious" has, however, been unfortunately applied to megrim, on account of the rejection of bile from the stomach, although this is due only to the urgency of the vomiting. The word "bile" remains in this connexion despite very much that has been written to show its incorrectness. Yet it must not be forgotten that many megrims are toxic in their origin. Sir Henry Holland was of this opinion, and Trousseau represents megrim as sometimes gouty. Dr. Murchison would call attention strongly to headache as one of the first signs of contracted kidney, and he always examines the urine in "neuralgic headache" of middle or advanced life. Such headache is often brought on by particular diet, and relieved by podophyllin, etc.

Vertigo is in a large number of cases connected with lithæmia, and follows indulgence in champagne and such like. Thus, the case of a man is related who was subject to vertigo for years, but who had a sudden attack of gout, and never again suffered from giddiness. Dr. Murchison related the case of a friend who was cured of vertigo by blue-pill, after suffering so severely that he intended to give up the profession for a time, and retire to the country. *Sleeplessness* has, as one of its causes, the derangement of the liver, which is connected with lithæmia. After a sleep of an hour, or of two, three, or four hours, there is waking, or uneasy dreaming or nightmare. In the morning the patient has a short sleep, or he rises tired and unrefreshed. These symptoms especially follow improper diet, but occur occasionally without much cause, without dyspepsia or flatulence, without more than a tendency to lithic deposits and gouty symptoms. Cullen records this as occurring in his own person. The same condition has been well described by Dr. Dyce Duckworth. But this sleeplessness is not generally understood, and much harm is done in the treatment of it with opiates, etc. Careful diet will be of great value in the relief of this symptom. A dose of carbonate of soda on going to bed or on rising will sometimes give relief; and some persons never sleep so well as on a dose of calomel or blue-pill.

HEALTH OF LIVERPOOL DURING THE YEAR 1873.—The report of Dr. W. S. Trench, the Medical Officer of Health for the borough, shows that 13,042 deaths were registered within the borough during the year, and the death-rate was equal to 25·8 per 1000. The average age at death of the inhabitants of the borough during the twelve months of the year 1873 was twenty-five years, in the parish twenty-six years, and in the out-townships twenty-four years. The deaths of infants below the fifth year of their age amounted to 5889, and thus comprised 45·1 per cent. of the whole deaths. Zymotic diseases occasioned 2387 deaths during the year 1873, and thus accounted for 18·3 per cent. of the total mortality within the borough of Liverpool during the same period. On sanitary work Dr. Trench reports that the Health Committee have, since the passing of the Sanitary Act, 1866, ruled that, as far as possible, all registered lodging-houses should have a day apartment for the accommodation of their lodgers, and that all houses where single rooms were occupied by day and night, should be registered as sub-let. The space required for a night lodger in a registered lodging-house is 300 cubical feet, while the space in a sub-let house for each adult is 350 feet. The effect of this arrangement is to lessen the number of registered lodging-houses. There were on the register 1035 lodging-houses at the end of 1872, and 1007 at the end of 1873. These difference was occasioned by the removal of 227 old licences, and the addition of 199 new ones.

ABSTRACT OF

THE GOULSTONIAN LECTURES.

DELIVERED AT THE ROYAL COLLEGE OF PHYSICIANS:

By JOSEPH F. PAYNE, M.B. Oxon., F.R.C.P.,
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ON THE ORIGIN AND RELATIONS OF NEW GROWTHS.

LECTURE I.—*Concluded.*

BEFORE leaving the subject of hypertrophy, it will be desirable to inquire what are the minute changes by which the increase of parts is effected, and whether these are comparable to those which are concerned in embryonic development and in the production of tumours. Enlargement of organs appears to be partly effected by increase in size of the elementary parts, and partly by multiplication of these parts. The latter, or hyperplasia, is no doubt the more important process when the overgrowth is considerable.

It is a little difficult to get direct evidence of the minute changes; but in one of the commonest instances, hyperplasia of connective tissue, or fibrous induration, it is quite evident that the first step is the multiplication of nuclei; and the proliferation of connective tissue thus resulting is an important factor in many diseases.

In order to exhibit a very similar process in another part of the body, I will recur to the point which was touched upon just now—the structure of the omentum. The human omentum is a structure which undergoes considerable, though very gradual, changes as life goes on. As is well known, we comparatively rarely find, in elderly persons, an omentum as thin and pellucid as that of children. It becomes thicker, shorter, and often adherent to neighbouring parts, while adhesions are also formed between the parts of the membrane itself. When minutely examined, it is found that these changes are twofold. On the one hand, the amount of homogeneous intercellular substance contained in this membrane in early life becomes diminished, the fibrous element increases, and fibrous outgrowths are formed which effect adhesions and contractions of distant parts. It therefore becomes completely fenestrated as life advances, while, at the same time, the fibrous bundles are actually stronger and thicker. Minute examination reveals, even in perfectly normal structures, some of the ultimate changes connected with these transformations. There may be observed a comparatively large amount of intercellular substance, a few connective-tissue corpuscles, and besides many cells and groups of cells attached to the outside of the fibrous bundles. These represent the endothelium or serous epithelium of the surface, but of course only in part. The conditions under which these structures are examined in the human body prevent us from getting these structures (so liable to decay) in a perfect state, and from applying the most satisfactory process for their demonstration—viz., nitrate of silver, since this only acts properly on quite fresh tissues. But what can be seen is enough to show in the normal structure phenomena of germination quite comparable to those involved in the processes of inflammation, tubercle, and new growth. Dr. Klein has shown the same thing much more completely in the serous membranes of animals, and regards the process as one strictly normal.

If we compare with this the appearances shown in the early stage of a minute secondary sarcomatous growth of the omentum of a child, we see that it is made up merely of a mass of simple elements, cells, or nuclei, and gives distinct evidence of germination in the elements, connective-tissue or endothelial, of the part.

I conclude, then, that a hyperplastic process is one of the chief factors in hypertrophy, in the embryonic development, in repair and inflammation, as it is in the growth of tumours. It would also appear that the element common to all these processes is one which is also a normal one, in certain parts, at least, of the human body, and connected with the chronic processes by which certain fundamental changes are effected in it.

New growth, then, is distinguished from the other processes just referred to—embryonic development, repair, inflammation, and hypertrophy—not by its minute characters, but by what

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may be called figuratively its direction and end, or by its relation to the rest of the organism; and the physiological factor which is common to all these processes, far from being strange or alien to the soil, is probably even a part of the normal life of the body.

LECTURE II.

The application of the laws of growth, which were considered in the last lecture, is most obvious in the case of the simple-tissue-tumours, in which new growth is obviously a phase of the continuous production of homogeneous tissue. We now reach the point at which we have to consider how far these principles apply to tumours not like normal tissues. Such tumours have been called heterologous, a term referring to structure; or malignant, referring to properties. It is with the former term only that we are now concerned.

These tumours, unlike simple tissues, form two great divisions —the sarcomata and cancers. Both of these are heterologous, but in somewhat different senses.

The sarcomata are essentially embryonic, representing early stages of tissue-formation; and parts of them are not unfrequently found forming a transition to simple tissues, but only to those of the connective-tissue group. All varieties of sarcoma arise from some tissue of this group, and hence, though they may be called heterologous, they are so only in a limited degree, since they arise from tissue which, though not identical with their own, represents another phase of the same development. Hence they have been included by Waldeyer with tumours of the connective tissue class in one group.

With regard to cancers, the case is somewhat different. They are even more unlike the tissues from which they spring, being, in fact, strictly speaking, unlike anything in the body. Nor can it be said that they are more like embryonic tissue—the only normal structure to which they bear any resemblance being that of glands; and here the resemblance is only partial, the cells being something like epithelial or gland-cells, but the arrangement entirely different. It is an undoubted fact that the majority of such tumours arise in or near glands, or near epithelial surfaces. Hence, some suppose that they grow entirely from such parts, and that their elements are derived from epithelium exclusively. Directly opposed to this is the theory of Virchow, who holds that these cells are not derived from the epithelium, but produced *in loco* from the connective tissue. If the former view be correct, they can hardly be called, strictly speaking, heterologous; but on Virchow's view they are undoubtedly so. The question is important as involving the problem whether there really is or not such a thing as heterologous growth. Virchow's view implies that there is in the body a tissue having a certain embryonic character, and still susceptible of growth and differentiation. It also involves a certain opposition between specialisation and reproductiveness. The opposite theory, with which the name of Waldeyer is now associated, but which was originally suggested by Remak, rests much upon embryology. Remak was led, in his embryological researches, to distinguish in the fowl's embryo, at a certain stage of development, three layers, to which he gave the names of the corneous, the motor-germinative, and the intestino-glandular, respectively. This distinction has been generally accepted; and Huxley has applied the simpler names of epiblast, mesoblast, and hypoblast. From the upper layer are developed, with other parts, the epidermis and its glands; and from the lower, the digestive and respiratory mucous surfaces with their glands; from the middle layer many other parts, including the connective tissue. There is thus a certain antithesis between the middle layer and the other two. Remak supposed that this distinction was maintained, even in the adult organism; and that elements pertaining to one layer could never be derived from the tissues developed out of the others. The chief criterion would be the production of epithelium; and thus the motto of this school might be the thesis, *omne epithelium ex epithelio*. The evidence for this proposition comes chiefly under two heads—1. The normal regeneration of epithelium. 2. The origin of morbid growths containing epithelial or quasi-epithelial elements.

Before discussing these lines of evidence, it was pointed out that there is a certain antithesis between the tissues of the different layers in the morbid products other than new growths to which they give rise, and in the diseases to which they are subject. Fibrin seems to be, notwithstanding some apparent exceptions, exclusively produced by tissues of the middle layer, the tissues of the other layers being subject chiefly to catarrhal inflammations.

It is quite clear that epithelial surfaces do not give rise to a new growth of vessels or connective tissue. This is illustrated by the surgical rule that wounds of the intestine unite not by the mucous, but by the serous surfaces, the latter belonging to tissues of the middle layers.

The question of the origin of epithelium produced for the purposes of repair has been much discussed of late years. Surgeons are not yet agreed whether the epidermis which forms on a granulating wound is produced from the granulations or only from the pre-existing epithelium at the edges. The appearances seen in sections through granulations are very ambiguous. Of late years, much importance has been attached to the evidence derived from the process of skin-grafting. In this operation, the transplantation of a portion of skin or epidermis alone to a granulating surface causes an abundant production of epidermis, which it has been supposed grows only from the graft. The phenomena of the transplantation of a piece of negro's skin to the surface of a white body seem to show that some multiplication of the graft must take place, since a black patch is formed, much larger than the original piece transplanted. But of all the observers who have examined the question microscopically, one only has brought any histological evidence to show actual germination of the elements of the graft. Others have referred the origin of the new epidermis either wholly or chiefly to the granulations stimulated by the presence of the foreign epidermis. Moreover, very similar results have been obtained by the transplantation of periosteum, muscle, or even by adding blister-fluid to the granulations. These results cannot, then, be quoted as evidence for the production of all epithelium from epithelium.

Direct observations of the growth of epithelium have been of late years numerous but conflicting; and the subject cannot be regarded as being by any means in a settled state. The phenomena of the repair and regeneration of epithelium do not, then, certainly confirm the law of Remak. Evidence respecting the same law derived from the growth of tumours, especially cancer, will form the subject of the next lecture.

FROM ABROAD.

THE LATE PROFESSOR CRUVEILHIER.

WE transcribe from the *Gazette Hebdomadaire* the following appreciation of this great anatomist:—

"The medical body of Paris has just sustained a painful loss. M. Cruveilhier died at the age of eighty-three on March 6, at his country seat near Limoges, where he has resided for some years past. A pupil of Dupuytren, he indicated in his inaugural thesis, 'Essai sur l'Anatomie Pathologique,' the predilection which has always directed his labours. After he had published his 'Traité d'Anatomie Descriptive,'—a work which succeeded to Boyer's Anatomy as the classical treatise on the subject, and which has been the guide of several generations (having, indeed, quite recently gone through another edition),—M. Cruveilhier devoted all his time and all his ardour in the production of his great 'Traité d'Anatomie Pathologique' (greatly encouraged and aided, as he himself declared, by the enterprise of his publisher, J. B. Baillière)—a truly prodigious work, whence all engaged in the same investigations, whether at home or abroad, have largely profited. Modern pathologists were continually meeting therein, as it successively appeared, new facts, the importance of which had escaped them, and upon which the improvement in our procedures of investigation sheds a new light; many of the new views which were only incompletely appreciated by contemporaries receiving ample confirmation of their justness at the present time. We may say that the 'Traité' comprised all that a work of its kind could contain at the epoch when it was published; and that its author often made up for the insufficiency of science by a kind of divination, which revealed to him new facts, raising him, as it were, above those which he had directly at his disposal. The Atlas remains at the present day a *chef-d'œuvre* of its kind, no foreign work being at all comparable with it.

"The hospital was the source, incessantly renewed, of his beautiful investigations; but we need not here enumerate the great clinical labours of Cruveilhier, as all practitioners are acquainted with his researches on progressive muscular atrophy, purulent infection, meningitis, etc. All these laborious works, conjoined to his active collaboration in the

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'Dictionnaire de Médecine et de Chirurgie,' completely occupied the medical life of Cruveilhier. An incredible activity enabled him to face all—the labours of the study, the hospital service, the teaching at the Faculty, and the demands of a vast practice. He reaped his glory, for in all the scientific meetings which he encouraged and delighted in, and especially at those of the Société Anatomique, of which he was almost the founder, he was enabled to appreciate the great esteem and the respect which attached to his person. From the humblest pupil to those who now in their turn have become our masters, all willingly inclined in the presence of this great and fertile labourer; and when, weighed down by years and work, he gave up his career, he carried with him the sympathies of his few remaining contemporaries, and the respect of those who had been his pupils."

On the announcement of his death at the Académie de Médecine, M. Devergie, the President, made the following interesting observations:—

"Allow me to make known to you an episode in the life of Cruveilhier of which I was a witness, and which determined his career. Still quite young, I was then an *externe* in Dupuytren's service, the *internes* of which formed a nursery of professors of the Faculty, many of whom hereafter occupied the most elevated positions. First of all there was Cruveilhier, the compatriot and affectionate pupil of Dupuytren, who became and continued his friend. With him were Sanson, Lisfranc, Lallemand, Moreau, Rayer, Deguise, and many others; and at that time Dupuytren formed the project of delivering a course of lectures on pathological anatomy—which might, indeed, be called comparative, as Dupuy, professor at Alfort, brought for each lecture the morbid parts of the animals that had died in that school. Dupuytren could only give these lectures at the Hôtel-Dieu in the evening. In the morning he devoted four hours and a half to his 300 patients and to his clinic, and at six o'clock he returned to the hospital to see the patients that had been admitted, and frequently then operated for hernia. The remainder of the day was spent in his large private practice. As soon as this course of lectures was announced, pupils and practitioners overflowed in the theatre and its avenues. Cruveilhier, the young *interne*, took most careful notes of every word that dropped from the master's lips, and from that time pathological anatomy became his almost exclusive occupation. Somewhat later he published his first work ('Leçons d'Anatomie Pathologique du Professeur Dupuytren'), and this soon procured his entry into the Faculty. By his assiduous observation of the pathological changes in diseased organs, Cruveilhier, in fact, created this branch of the art of healing, for at that epoch the work of Portal was the only one known [M. Dervergie should have added "in France," for Baillie's work had been published some years], in addition to the facts consigned in the works of the old authors."

Clinical Teaching of Insanity.

What we are now trying to establish in imitation of the Parisians, they are, it seems, in danger of being deprived of. As there is no chair for the clinical teaching of mental diseases in the Paris Faculty, the physicians at Salpétrière and Bicêtre have long been in the habit of supplying this want by courses of lectures, which have sometimes become famous. Of late the medical officers of the St. Anne Asylum, to which recent cases of insanity are sent, have followed the same course, and have recently published their programme for the present year. The projected lectures have, however, been peremptorily suspended, and probably stopped altogether, by a decree of the Prefét de la Seine, who seems to have despotic authority in the matter. At all events, this official turns at present a deaf ear to all remonstrances, and declares that if it depended upon him there should be no clinical teaching in any of the hospitals. He founds his objections on the pretext that a patient by reason of his poverty should not become the victim of the injustice of being made a subject of study. Of course we all know that the very first who would suffer most from the absence of clinical instruction would be the poor themselves. In reference to the insane in particular, the Prefét objects to their being made in their state of unconsciousness "a public exhibition." The phrase cannot be applied with any honesty to the circumstances of clinical instruction; but it seems that at St. Anne writers for the newspapers manage to gain admission in order to prepare their sensational articles. The sooner this is stopped the better, and no objection can be made to any scrutiny that may be necessary to exclude all but those likely to profit by the instruction given at these lectures. It is intended, we believe, to appeal to the medical members of the National Assembly in reference to this high-handed procedure of the Prefét.

Bromide of Potassium in Albuminuric Convulsions.

M. Gimbert brought before the Société de Thérapeutique the particulars of a case of albuminuric convulsions, as exemplifying the utility which may attend the administration of large doses of the bromide of potassium in this disease. He observed that medicinal substances not infrequently lose their reputation in consequence of the exaggerated manner in which they are employed; and this has been somewhat the case with the bromide. Still, there are circumstances in which doses which usually would be regarded as excessive prove of great service. The case in question occurred in the person of a man thirty-five years of age, who until 1870 had always enjoyed good health. He then became the subject of undefined pains in the back and chest, which were regarded as rheumatic. In January, 1871, he was found to be suffering from chronic pleurisy, and three litres of albuminous fluid were removed by the aspirator. After apparent recovery, he was attacked at the end of November by acute albuminuria, which two days afterwards was attended with convulsions, which after fourteen hours' duration yielded to mild venesection; he remaining, however, for a week insensible. Early in 1872 he came under the author's care at Cannes, and again suffered from pleuritic effusion and the passage of large quantities of albuminous urine. We need not pursue the details of the case; it sufficing to say that on March 6 the patient had another fearful attack of convulsions, which for some hours threatened his life. Owing to his anæmic condition, it was not thought prudent to employ bleeding or chloroform, and the bromide was therefore administered in ten-gramme doses per anum, as trismus prevented this being given by the mouth. This proved successful in relieving the convulsions, although the patient died seventeen days afterwards with symptoms of uræmia. In this case twenty-four grammes of the salt had to be administered before the convulsions were arrested; but this is a quantity far less than the doses which have been employed by MM. Huette, Puche, and others.

In the discussion which followed, M. Bucquoy observed that he had long employed the bromide in the treatment of albuminuric convulsions, and usually had very good reason to be satisfied with it. He sees a great number of cases at the Cochin Hospital, which he attributes to the fact of there being numerous tanneries in its vicinity, the workmen employed in these being subjected to high temperatures and subsequent chills. He first resorted to this treatment in a case of very bad albuminuric eclampsia, in which the administration of eight grammes was followed by speedy recovery. Since then he has tried it in a considerable number of cases, and mostly with success. He thinks the bromide is preferable to venesection, which enfeebles the patient, and renders convalescence tedious; while some patients are in too exhausted a state to admit of its employment. Saturnine eclampsia, also, yields just as readily to the bromide. M. Bucquoy gives two grammes at a time, never exceeding ten grammes in the day.

M. Moutard-Martin cautioned his colleagues against such large doses as from twenty to thirty grammes per diem, which have been recommended. Trying the drug upon himself in doses of two grammes, he found that he could reach eight grammes a day without ill effect, but when he had attained ten grammes he experienced collapse and vertigo. Still, he pushed it on to twelve grammes, when true drunkenness ensued. Next day, however, he was all right again. In one case, however, he gave fifteen grammes per diem for a spasmodic cough, which had lasted eight months, and had brought on epileptiform seizures. This dose was kept up for eight days in succession, a kind of tolerance thus becoming established. When a large dose is suddenly administered, accidents promptly ensue, which, however, are soon dissipated again. M. Constantin Paul did not think large doses should be feared, for he had seen M. Puche give forty or forty-five grammes per diem without any ill effect. Moreover, acute bromism is not dangerous, and the symptoms soon pass away. As to small doses, such as two or three grammes, taken continuously, they only debilitate and fatigue the patient. M. Paul pays little attention to the accidents, which seem to do no harm to the patients, especially the epileptics. Bromide of ammonium is more active, and not more than four grammes should be administered. M. Bucquoy protested against M. Puche's practice being cited in approval of very large doses,

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for his patients suffered from vomiting, and were in a distressing condition.

Transfusion in Anæmia.

Professor Behier has published in the *Révue Scientifique* of March 7 an important clinical lecture, which he delivered at the Hôtel-Dieu on a successful case of transfusion in anæmia, in which he enters into the general question at considerable length. A woman, twenty-one years of age, was brought to the hospital on January 24 in a fainting condition, having been the subject of very profuse metrorrhagia during the twelve preceding days. Notwithstanding all attempts at its permanent arrest by means of ice, ergot, plugging, etc., the flow of blood continued, so that at length she became so reduced by the 29th that death seemed imminent. Exploration failed to reveal any cause for the hæmorrhage, which was therefore attributed to prolonged lactation of an infant sixteen months old, combined with her laborious mode of life. However this may be, she was dying of anæmia, and incoercible vomiting preventing the administration of food or stimuli, it was resolved to resort to transfusion. M. Behier employed Moncoq's apparatus as modified by Matthieu. Believing the introduction of a little air into the vein selected is of no great consequence, provided the vein be one of those of the extremities, he strongly objects to the employment of defibrinated blood, which he regards as a practice quite at variance with physiological teaching. For those who doubt their dexterity in introducing the canula, he recommends that the vein should be previously opened by a lancet exactly as for venesection, the opening not being a large one, but only sufficient to admit the fine orifice of the canula. Whatever the apparatus employed, it is a rule of the highest importance that the blood should be introduced very slowly by a continued and regular movement, unaccompanied by any jerking or suddenness. If this slow introduction be not well observed, we may have, as indicated by Brown-Séquard, death by syncope or convulsions accompanied by vomiting. This syncope would appear to be correctly attributed to the too great distension of the right ventricle, the walls of which are paralysed. There is also another class of accidents which may follow the too sudden or too copious introduction of blood. The patient falls into a sort of inertia, the face becoming pale and puffed, while the eyelids are swollen and assume a slightly violaceous colour, the torpor is well-nigh complete, and the patient dies, not suddenly, but at the end of some hours. The explanation of this occurrence is involved in some obscurity, but it is of the highest importance to prevent so redoubtable an accident. A sign of its imminence to which M. Behier attaches great importance is the occurrence of a slight dry cough. Wherever this is observed the injection should be arrested, for it is the first indication of a commencing pulmonary congestion, and the slightest degree of the accidents just mentioned. The primary precaution to be taken is to inject very slowly—not so slowly, however, as to give time for the blood to coagulate. With Moncoq's apparatus, which at each turn of the rack injects five grammes of blood, only half a minute is required for the blood to pass into the vein; and when slowness is counselled, it is so only relatively to the haste and suddenness too often employed. A guide in the matter is found in the normal course of the venous blood, which is what we should seek to imitate, keeping, as regards the impulse imparted, somewhat within physiological rapidity. It is also of importance not to inject too large quantities of blood at a time. In this patient about eighty grammes were injected. This was done slowly, and yet in her there was almost a threatening of the accidents that have been referred to. The injection, which occupied about three minutes, was made at ten o'clock, and in about an hour she was able to drink without vomiting. The pulse continued miserable, and it was not until one o'clock that very decided improvements were observed. By four she was able to take food, and had lost a cephalalgia that had been very distressing before the operation. We need not pursue the details farther, it sufficing to say that the patient is now well.

The apparatus of M. Malassez for the enumeration of the red globules was employed in this case. On the 29th, prior to the transfusion, there were found to be 850,000 red globules per cubic millimetre, while four hours after the operation there were 1,110,000. In eight hours after the transfusion 1,143,000 were counted. On February 13 they reached 1,850,000, and on March 4, 2,029,500. Thus, it is evident that life once revived by the ingestion of the tonic blood, the patient was henceforth enabled to produce new globules. It is to be observed, however, that in her there was no affection of the stomach, which is a favourable circumstance, the absence of which in other cases may explain their failure, the stomach in them not being able to continue the reparative action commenced by the transfusion. This is a point always to be borne in mind in deciding upon the propriety of undertaking transfusion.

"This case which I have now detailed to you is instructive in many respects. On the one hand, it exhibits to you the marvellous efficacy of transfusion, which in this instance most certainly has preserved the life of the patient. Another lesson which is distinctly derivable from our case is the efficacy of relatively small quantities of transfused blood. Eighty grammes (twenty drachms) of blood have sufficed to save this woman. As a general rule, then, avoid injecting too large a proportion, for this is the best means of warding off pulmonary accidents and syncope. It is far better to return again to the charge, and practise successive transfusions, than to risk injecting too much at once. Again, it does not seem to me to be doubtful that non-defibrinated blood, inasmuch as it is intact and enjoys all its properties, is more apt to act in moderate quantities than blood which has been despoiled of a portion of its principles, and altered by whipping."

REVIEWS.

Manual of Public Health. By W. H. Michael, Barrister, W. H. Corfield, M.A., M.D. Oxon., and J. A. Wanklyn, M.R.C.S. Edited by Ernest Hart. London: Smith, Elder, and Co. 1874. Pp. 374.

We have read this book with much interest, as one of the first manuals on public health published since the passing of the Public Health Act of 1872. We have looked in vain for some authoritative work on the subject of public health for the guidance of the uninitiated health officers so recently scattered all over the country. It is only to be expected that such inexperienced officers should require all the assistance they can obtain from extraneous sources, on account of the variety and responsibility of the duties devolving upon them. Desiring in the present unsatisfactory state of the law to act to a great extent according to precedent, they must frequently find themselves awkwardly situated. Four gentlemen have been engaged in the construction of the work, which is divided into three distinct parts—first, a condensation of all the laws relating to the subject of public health; we may suppose that Mr. Michael is responsible for this—the legal—part. The second part embraces the medical aspects of public health, such as water-supply, epidemics, overcrowding, and noxious trades; this covers 115 pages, and was probably written by Dr. Corfield. The third or analytical part only occupies seventy pages, and was written probably by Mr. Wanklyn. We have been led to speak of the general construction of the volume more particularly because one of the authors writes to us to say that "by some mischance the particular portions contributed by the several authors are nowhere indicated." When we turn to Dr. Corfield's department, we find that much care and discrimination have been shown, especially when dealing with the subject of epidemics. Alluding to the comparative immunity of children from fatal attacks of variola, he shows that, "unlike all other eruptive fevers, it is most fatal to adults; but if we consider only its fatality among unvaccinated people, it follows the same law as the other exanthemata." The large number of deaths between twenty and forty years of age points to the necessity for revaccination. Dr. Corfield alludes to some of the dangers arising from recently constructed systems of drainage, especially in seaside towns. He has proved by reference to mortality tables that deaths from typhoid fever have rather increased than decreased in those towns where, although the system of drainage may be in itself all that could be desired, the outfall was intermittent, so that the sewer-gas, pent up for hours during the flow of the tide, was compelled to force an exit for itself by the imperfectly trapped house-drains of the town. At Worthing there was a considerable increase in the death-rate from enteric fever after the sewage arrangements were reconstructed, especially in those parts of the town situated high up. The fever subsided as soon as proper ventilation was provided. The outbreak at Scarborough during the visit of the Prince of Wales was probably due to the same cause. Dr. Corfield alludes to another very interesting fact in connexion with drainage—viz., the marked decrease

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of phthisis in all towns where the sewers also act as drains to carry off the subsoil water, which in the town of Salisbury, amounted to 50 per cent. Yet we find that Salisbury has a comparatively low phthisis mortality. In summing up some observations upon water-supply to houses, Dr. Corfield refers to numerous cases of enteric fever traced directly to the pernicious plan of allowing the waste-pipe of cisterns to communicate with the soil-pipe, so that the latter is ventilated into the cistern, and the noxious gases are absorbed by the water. Dr. Corfield considers the earth-closet system impracticable and useless for towns, and only of service for isolated dwellings.

The first part gives us a condensation of all the laws relating to public health, the construction of central and local authorities, the duties of officers of health, the laws pertaining to the supply of water, public and private lighting, roads, sewers, and nuisances. Written in a clear and terse style, the author gives an excellent *résumé* of the various Acts of Parliament with which a medical officer should be acquainted; while that information is supplemented by a copious reference to the statutes pertaining to public health, and to the powers and penalties under the Sanitary Act. Nearly half the book is taken up by this article, which must prove of much service to inexperienced officers of health.

Mr. Michael also contributes a chapter on water-supply, strongly advocating the constant system. At Norwich and other places where it is employed, hardly more than one-third of the water is now used, as compared with that wasted under the intermittent system. Certain stringent rules with regard to the construction of taps and fittings are required to be observed by the householders; these are quoted, and appear very desirable and necessary.

One of the most important duties devolving upon the medical officer of health, is that of improved dwellings for the poor. Such, however, is the opposition on the part of holders of small cottage property, who are in general local magnates and members of the district board, that the health officer is powerless to obtain even an increase of the rates for this purpose. "In general," says Mr. Michael; "the less obtrusive the action of a medical officer of health, the better will his employers and the public be satisfied." Many of the laws quoted by Mr. Michael for sanitary improvements appear to be either misunderstood or purposely evaded; for instance, By-law No. III. of the "Urban Sanitary Authority" requires that no building shall be erected on the side of any street which shall exceed in height the distance from the front of such building to the opposite side of such street.

The third part is very well done, and treats of the chemistry of air, water, and various foods. It will probably be found necessary to extend this part in another edition, as at present it seems to us to be too brief; but as a medical officer of health is not necessarily a public analyst, the information given is perhaps ample enough for the scope of the work.

In closing the book, we feel that the editor had a laudable desire to provide a number of inexperienced medical officers with a volume which would treat of those sanitary matters which are being for the first time practically carried out in this country. We hope that this manual will satisfactorily fulfil its object.

On Monday, a new cottage hospital at Shaftesbury—erected by subscription in memory of the late Marquis of Westminster—was opened by the Bishop of Salisbury. The site was presented by the Dowager-Marchioness of Westminster. The hospital contains twelve beds, and cost about £2000.

Chilblains and Coryza.—The following is a very convenient, economical, and efficacious application for chilblains and chaps:—Alcohol at 85°, 100 parts; glycerine, twenty-five parts; and phenic acid, one part. Powdered camphor sprinkled with tincture of iodine, and inhaled by the nostrils, constitutes one of the most prompt and certain of remedies in coryza or "cold in the head."—*Révue Médico-Photographique*, February.

Pathognomonic Sign of Pertussis.—The practitioner may be sometimes consulted on a case of hooping-cough without having the opportunity of witnessing a paroxysm. In such a case M. Bouchut recommends him to examine the frænum linguæ, which he will always find the seat of a small ulcer in children the subjects of pertussis, or who are on the point of becoming so.—*Révue Médico-Photographique*, February.

REPORTS OF SOCIETIES.

ROYAL MEDICAL AND CHIRURGICAL SOCIETY.

Tuesday, February 24.

Dr. C. J. B. Williams, F.R.S., President, in the Chair.

Mr. W. Fairlie Clarke read a paper "On Ichthyosis Linguæ," illustrated by cases. The author said the term "ichthyosis" was first applied to a morbid condition of the tongue by Mr. Hulke in 1864. In its earlier stages the disease has something in common with warts and corns, and with "papillary tumours of the gum." But it is distinguished both pathologically and clinically from these affections in two ways. (1) It attacks only the tongue and the inside of the mouth; no other mucous membrane is subject to such an affection. (2) It slowly spreads, but gives only slight inconvenience and no pain. In this state it may remain many years, but sooner or later it assumes the characters of epithelial cancer. Ichthyosis linguæ manifests itself in an overgrowth of the papillary and epithelial elements of the mucous membrane, and it is the dorsum of the tongue which is affected in the majority of instances. In some cases the enlarged papillæ may be seen sprouting up in small groups; in others the whole of the affected surface is smooth, hard, and almost cartilaginous. It presents either a silvery or a snow-white appearance, quite different from any fur which ordinarily covers the tongue. When the disease has once manifested itself, it is very persistent. Though it sometimes responds a little to treatment, and though it varies slightly, it never wholly leaves a spot which it has once attacked. The essential nature of the disease appears to be that of a chronic inflammation, accompanied by an overgrowth of the papillæ and a loss of power to throw off the effete epithelium. The irritation which gives rise to this inflammation sometimes acts on the periphery of the nerves, and sometimes it is situated between the periphery and the centre. It would appear that any persistent or oft-repeated irritation of the lingual branches of the fifth pair is capable of causing the disease in persons who have a strong inborn tendency to the development of warty growths under slight causes. If a portion of the ichthyotic coating be examined under the microscope, some increase in the thickness of the epithelial layer is seen, some enlargement also of the papillæ, and a great development of the rete mucosum. Around the bases of the papillæ, and in the submucous and muscular tissues, there is a very abundant nuclear cell-growth. There is also a notable increase in the number and size of the blood-vessels in all parts. When the disease reaches the stage of epithelial cancer, the most striking feature is the development of the rete. It increases enormously at the expense of the papillæ, reducing them in many places to mere threads, and dipping down between them in the form of large club-shaped processes. Towards the termination of some of these processes the cells may be seen to have assumed a circular arrangement, forming the laminated capsules, or nests of cells, that are so characteristic of epithelioma. These points are illustrated by microscopical sections and drawings. Nine cases of ichthyosis linguæ are related at length, some of which were under the author's own care, while others have been communicated by friends or gleaned from publications. In an appendix eight more cases are briefly noticed. Several of the cases are illustrated by drawings. The paper concludes with some general remarks upon the disease and its treatment. 1. It is much more common in men than in women. Out of sixteen cases (one being set aside for special reasons) only one was a female. 2. It never occurs before puberty. It is an affection of early manhood and of middle age. 3. Though a venereal ulceration may occasionally be its starting-point, there is no reason to think that it is always associated with syphilis. On the contrary, it is clearly distinguished from the manifestations of that disease. 4. With regard to treatment:—If the disease presents itself in a very early stage, it should be promptly and thoroughly excised. On the other hand, when it has become epitheliomatous, no time should be lost in performing an operation. But during the whole middle period the best thing that can be done for the patient is to study his general health. If any local measures are used, they should be of an unirritating kind. If any jagged teeth are present, they should be removed. At the same time the patient should be advised to guard his

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tongue against all sources of irritation, and to pay particular attention to his digestion. Under this treatment the ichthyotic coating often alters for the better, though it is never altogether removed.

Mr. Acron said the patient seen by him in the hall presented a form of disease familiar to all who saw much of affections of the tongue, especially after syphilis—it was psoriasis. He had seen ichthyosis on the surface, but that differed greatly from this. Syphilis was the main cause of it, but not the only cause; it might be produced by bad teeth and short pipes. It was often seen in India and in Indians. When ulcerated, it was not easy to say whether the disease was syphilis or epithelioma. With acid nitrate of mercury, and alum, such maladies did well. No doubt they improved by general treatment and protection of the organ.

Mr. Hulke said they were indebted to Mr. Clarke and Mr. Morris for having got together so many cases of this curious malady. His own patient was a strong healthy man; and it was most frequent in people who had not suffered from syphilis. His impression was that it was not syphilitic in any. Exception had been taken to the term "ichthyosis." Sir James Paget had concurred in the use of the term, and had pointed out the close parallelism between the two diseases. General results as to anatomy confirmed this. In his case all the changes were confined to the epithelium and the papillary layers. He was not, however, able to follow up the exact evidence as to the epithelioma arising from this. He had tried all sorts of remedies, but finally attempted to cut it out; very free bleeding followed, and the patient nearly died. Six years after, epithelioma began in the centre of the tongue. In no other case had he been sure of the mode of transformation. He hardly thought the disease was inflammatory. It lasted for years, and was limited to the corium. In chronic eczema there was hypertrophy of the subcutaneous connective tissue. Treatment was of no use; he had tried all kinds without effect, and in every instance epithelioma followed. In this, also, Sir J. Paget agreed.

Dr. Fayrer said the disease was common in India, especially in natives. Sometimes it was syphilitic, sometimes not so. In one case, a man aged seventy became the subject of ichthyosis. Arsenic cured him. He preferred the term "ichthyosis" to "psoriasis." He attributed this to the same causes as ichthyosis of the skin, but modified by situation. Many cases were hopeless, but if the skin disease yielded to arsenic the tongue did so also. Caustics did harm.

Dr. Dreysdale said the disease arose from different causes. Most were syphilitic, some not. What was called syphilitic psoriasis often arose from other causes than syphilis. He used iodide of potassium in twenty-grain doses.

Dr. A. P. Stewart said Dr. Neligan's case was one of the first of the kind recorded; it was in a certain way historic. Dr. Neligan sent notice to all insurance offices of the dangerous character of the malady, even when the patient seemed healthy, for in his case in no long time epithelioma and death followed. Soon after he saw a gentleman whose mouth was coated with a rough white covering, apparently the same as Neligan's. He had been salivated for syphilis, and had never been quite well since. He was still in very good health, but any irritant caused extreme discomfort. In another instance the tongue was quite covered, but did not inconvenience the patient. He was gouty, and sucked lemons freely. This irritated the tongue, and set up glossitis, but not epithelioma. In another instance a French nobleman whom he saw died of epithelioma.

Mr. Savory had now two cases—one a man aged seventy-three, whose tongue was covered on the dorsum; the other was a man aged twenty-eight, who had it on the cheeks, and not on the tongue. It was pearly, and not like washleather. The disease was quite different from psoriasis in every respect. He thought such papers as Mr. Clarke's very useful.

The President considered it desirable to fix the characters of the disease—whether it was ichthyosis or epithelioma.

Mr. Nayler said ichthyosis was nearly always a congenital affection.

Dr. Sparks said ichthyosis of the skin and of the tongue were anatomically identical. Sometimes they tended to follow the course of certain nerves. The epithelioma began in the centre of the ichthyotic patch in the case he examined.

Mr. Arnott asked Mr. Hulke to define psoriasis and ichthyosis of the tongue. He thought ichthyosis was always congenital. Both might be syphilitic, and both might not, the latter being much the more inveterate. Ichthyosis consisted almost entirely of proliferated epithelium formed only on the surface, and not dipping down into the true skin and subcutaneous tissues; if it did, it became epithelioma. There seemed to be some connexion between the two in families. He had seen a man with ichthyosis of the skin whose brother had died of epithelioma of the tongue following a white patch on it.

Mr. Hulke said one good distinguishing mark between psoriasis and ichthyosis was that psoriasis tended to vary from time to time, whereas ichthyosis was constantly of the same thickness. The malady was certainly not epithelioma.

Mr. Clarke said in reply that the patient seen was the patient who had had the butterfly patch, but who had improved under treatment. Both names—psoriasis and ichthyosis—were open to objection, and he thought they would be justified in giving the malady a new name. He also thought they would be justified in calling it a chronic inflammation.

CLINICAL SOCIETY.

Friday, February 27.

Prescott Hewett, F.R.C.S., President, in the Chair.

Adjourned Debate on Pyæmia.

Mr. Callender, in resuming the debate on the President's paper, endorsed Mr. Savory's remarks as to its value and importance. Many of his cases could not in any way have been produced by infection. He thought they should ignore the term pyæmia altogether. If by it they only meant conditions of blood giving rise to formations of pus, they must also extend it to cases originating in inflammatory action; and these he was not inclined to group with pyæmia. It was also a misleading term if it led one to suppose that there was actually pus in the blood, and in that it made observers look for the origin of such pus in inflammation of the veins. Again, it had induced surgeons to look for it in certain conditions, as diseases and injuries of bone, and after parturition. When, therefore, he came to have charge of a large number of hospital patients, he resolved to ignore the term altogether, and to group in three sets the whole series of accidents which were likely to arise. In the first group he placed all which might be spoken of as primary septicæmia, where the blood-poisoning is due to the action of acrid and irritating fluids poured from wounds during the first hours after operation. In the second group he placed all cases of secondary septicæmia, where the blood-poisoning depended on the decomposition of residua, sloughs, or otherwise. In either of these conditions the quantity of poison might be large or small, whilst the patient might be constitutionally strong or weak; and hence the variations in its effects seen. There was still a third class of cases—which might be called cases of thrombolosis—one apt to follow bruises. In these, clots formed in the veins, and underwent decomposition. The disintegrated material being set at liberty, formed deposits in distant organs; but here there was no inflammatory process, and hence the condition was in no way to be confounded with embolism. In embolism these clots did not undergo decomposition. Besides these main facts there were others which fringed round the subject, as the occurrence of erythema and of erysipelas; but they were not essential changes, while these three were, and they led up to a very correct idea as to the treatment which should be adopted. There was little hope of treatment after the malady was fairly established, but the patient might drift through with good nursing. Preventive treatment was therefore most important. Drainage was the first thing, thereby removing all acrid discharges; next came cleanliness and the use of antiseptics. Ventilation of wounds and the isolation of the wounded were also necessary. For his part he did not greatly believe in contagion, save in the gross sense. He thought the granulations of first-rate importance, forming a kind of shield, which, if it were removed, allowed absorption and blood-poisoning. During a period of three years, and out of a great crowd of cases, he had had only two of septicæmia and two of thrombolosis, and not one death from erysipelas. He believed we could control these affections; cases will creep in, but practically we could suppress them.

Mr. Barwell said most had spoken as to the condition of the wound, but there was also something in the blood, and he cited the example of albuminuria as illustrating what he meant. Bad drainage and bad ventilation were the great causes. There must be some septic influence in a hospital, as nobody, he thought, would do an ovariotomy in the wards of

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a general hospital. Yet there were, after all, few cases comparatively in large hospitals, compared with the number of operations. He also referred to cases of pyæmia following slight injury, and cited from his own experience one where the removal of a small exostosis from the toe was followed by pyæmia and death.

Mr. Brudenell Carter thought they could not draw a sharply defined line between septicæmia and pyæmia without excluding some cases. We could recognise cases of septicæmia where there was self-poisoning and where the poison originated in another. He thought this might be well illustrated by the clinical history of gonorrhœa, which he considered a general disease. He had seen a hale countryman with gonorrhœa—his eyes affected, and suffering from an intensely depressing pneumonia, all of which he referred to blood-poisoning, and considered quite different from gonorrhœal rheumatism. They should look to the general constitutional condition and certain states of nerve-force which predisposed to such attacks.

Mr. Cadge, of Norwich, thought such questions required working rather than discussing. In the Norfolk and Norwich Hospital during the last six years pyæmia had gone on increasing, yet the Hospital was well drained and ventilated. The increase was to be accounted for by the overcrowding of the wards. There had been no extension of the Hospital for many years, yet there were more patients and more injuries, especially among the males. The proportion of the two sexes affected tended to show that there was overcrowding in the male wards, in the sense that too many bad cases were brought together. They had taken many precautions, but the results were not yet quite plain. In private practice they had no such experience. He had had only one doubtful case, after lithotomy in a very aged individual, and he was struck with the contrary experience of the President and certain other speakers that it was as prevalent in private as in public practice. Yet others had experience like his own. How were they to reconcile such discrepancy? General experience must, after all, be much the same, yet some would hesitate to designate as pyæmia certain cases given even by Mr. Prescott Hewett. Thus, he would question the nature of certain cases, especially those following typhoid, described by these gentlemen. In his twenty-one hospital cases all died; half of Mr. Hewett's recovered in private; but, as a rule, at least 90 per cent. of pyæmia cases proved fatal. It may be that hospital cases are more fatal, but Sir James Paget said No. In twenty of his cases there were internal abscesses; this could hardly have been so in Mr. Prescott Hewett's cases which recovered. All of these cases arose from a broken surface; not so in Mr. Prescott Hewett's. Such did occur, but were rare. Hence it was difficult to compare the two sets of cases. If pyæmia was so frequent in London, patients would do well to come to the country.

Mr. W. Adams said operations had sometimes been of necessity suspended in large hospitals on account of the pyæmia. At the Great Northern a year or two ago they had a very great mortality from this cause, but after a new house-surgeon had come in, skilled in the mode of dressing adopted at St. Bartholomew's, the numbers rapidly diminished, and since then there had been only one doubtful case. This he considered to be due to the altered numbers in the wards and to the dressing of the wounds.

Mr. Durham said it was a matter of consolation to hospital surgeons that so many cases occurred in private. He had had five cases of pyæmia in private, and in no one instance had they originated in infection carried by him. It had been said that hospital surgeons should not operate, on account of the risk of bringing infection with them; he only saw these cases after they had originated. The first case was that of a student who was taken ill while passing his examination. He had pyæmia, and died. It turned out he had been suffering from gonorrhœa. A lady had aborted, and was exposed to the poison of scarlet fever; pyæmia set in, but she recovered—owing mainly, as he thought, to large doses of quinine, which he always used in such cases.

Dr. A. P. Stewart said pyæmia was by no means essentially a surgical disease, or connected with open wounds alone. He well remembered it in the wards of the Glasgow Fever Hospital, where it was exceedingly prevalent. When patients seemed to be recovering from typhus they were seized with rigors, had a dusky skin and glazed tongue, with painful joints, which after death were found filled with pus. There were plenty of visceral abscesses, but no wound. They were recovering from a malignant disease, and the wards were overcrowded. Did not pyæmia mainly arise from bad air in some shape or other?

Friday, March 13.

Prescott Hewett, F.R.C.S., President, in the Chair.

After the reading of a paper by Dr. Buzzard, the discussion on Pyæmia was resumed by Mr. Spencer Wells, who spoke mainly with regard to pyæmia under certain conditions, and these he considered were much the same in private houses badly ventilated and in the wards of a hospital. If we were to search for the causes of pyæmia, we must put aside all infection by the breathing organs, and then all the conditions which render the system liable to it would be more capable of isolation. Mr. Callender's point was that care in the treatment of wounds gave as good results in hospital as in private practice. He really believed pyæmia was under control. True, it might occur in good houses, but it was much more likely to occur in hospitals. If this were the case, the greatest possible care was incumbent on every surgeon in operating. The whole subject deserved investigation, and for this the President was to be congratulated, inasmuch as he had done great good by pressing it on public attention.

Dr. Gordon, of the Army Medical Service, said he had seen a good deal of pyæmia under peculiar circumstances, particularly during the Franco-Prussian war, and especially in Paris, where great ravages were committed by pyæmia and its allied disorders, including erysipelas and hospital gangrene. Some of these cases were described as pyæmia, some as septicæmia, but it seemed as if one were a stage of the other. Some French authors described septicæmia as a very acute, others as a very chronic process; hence he concluded that the distinction was not as yet perfectly drawn. He had never seen pyæmia in a military hospital except during war, which he thought spoke well for sanitation in the army. As a rule, pyæmia in Paris followed shell-wounds of bones and large joints, and began from fourteen to sixteen days after the injury. First came an intense chill, followed by a perspiration equally so, insomuch that the bedding was often soaked, whilst the body gave out a most sickening odour. The countenance was sunken; there were delirium and despondency. There was always pain, but in various organs. This lasted from four to ten days, and he never saw any recoveries. He considered loss of *morale* such as prevailed among the French a powerful predisposing cause. There were few cases when the wounds were slight, many when more severe.

Dr. Burdon-Sanderson thought the discussion had clearly shown that there was such a thing as hospitalism, especially in lying-in hospitals. Also it had been shown that pyæmia was not always dependent on external causes, as in typhus, which was followed by abscesses, and not merely by attacks of cellulitis. It was, perhaps, seen in its most exquisite form when bone—especially the temporal bone—was affected. The external origin of pyæmia must not therefore be admitted merely as an alternative; both external and internal causes might be excitants of it. This was supported by experiment. In all cases there was an initial and a secondary process. As to the primary process, that must be inflammatory; but some inflammations were infective, and some were not. All pyæmic inflammations had a septic character. Their mode of diffusion was mainly by thrombosis and embolism. Yet all emboli, even of large size, did not give rise to pyæmia, whilst others not large enough to plug vessels did. The lymphatics might, however, act as channels of diffusion. Our duty was, therefore, to fix our attention on the primary sources of infection, and attend to the treatment of the first beginnings—not to study the ultimate results of the process. The examination of the lymphatics was of great importance, and freshly amputated limbs often gave good opportunity of studying them in relation to the pyæmic process.

Dr. Fayrer had only seen two kinds of pyæmia in Indian practice. It had been spoken of as a surgical disease, but it was quite as much medical and obstetrical, and it occurred largely both in hospital and private practice. He had often seen it arise from overcrowding, but he had also seen it in good houses in private. He did not like the term "pyæmia." The worst forms, he thought, followed osteo-myelitis. A portion of tissue died, and suppuration followed if the patient lived long enough. This was the history of most internal abscesses. The blood also tended to form clots, especially on the right side

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of the heart. Most frequently death followed, but not always. The great remedies were cleanliness, space, nutrition, and air.

Dr. Moxon thought pyæmia in some respects resembled cancer, especially in the local becoming constitutional. He would briefly refer to some special cases—amongst others to those arising from gonorrhœa. He had also seen two idiopathic cases, where no sore could be discovered. There must be something special in the cases of these persons; perhaps they resembled scarlatinal rheumatism. Every form of contagion ought to be hunted up in such cases. It had been said that the clots in the veins in such cases were not pus; but this was quite a mistake.

The President, in reply, said it was quite clear there was great divergence of opinions as to what was pyæmia and what was not. He found himself, for instance, opposed to such men as Erichsen and Cadge. They would limit pyæmia to visceral and multiple abscesses. This he could not admit. He called the case pyæmia when pus was found in the joints and serous membranes. Pyæmia might be represented by a single abscess under certain circumstances. It had been clearly shown that pyæmia exists in private practice, therefore it was not due to hospitalism. This term "hospitalism" had been used in two ways, which was unfortunate. First, it had been used with regard to the hospital alone, especially if old; but now it was used to indicate overcrowding and general maladministration. The latter use of the term he greatly regretted. Again, as regards contagion, it had been said that hospital surgeons carried pyæmia with them. His own experience was quite the contrary. In some cases it was purely constitutional. Mr. Erichsen had seen no pyæmia after operations in private practice, but plenty in public. Why did he not carry it with him? A still stronger case against so-called hospitalism was that ewes died in the open field of pyæmia.

With a vote of thanks to the President for his address, the meeting adjourned.

THE PATHOLOGICAL SOCIETY.

Tuesday, March 17.

Sir W. Jenner, Bart., M.D., F.R.S., President, in the Chair.

Adjourned Discussion on Cancer.

Sir James Paget said that he had had the advantage of reading the speech of Mr. De Morgan, and found that they were much more at one upon the pathology of cancer than he believed he should have thought had he only heard it. He found Mr. De Morgan holding that we must look for at once a local and a constitutional origin of cancer. "All," said Mr. De Morgan, "that we see in the life of cancer naturally leads to a belief that the disease must, from the first, be more than a mere local tissue-change; and, in one sense, and to a certain extent, I must admit that this belief is well founded." And again,—"The view which I would maintain is, that though it be local in its origin, there is in some, perhaps in all, cases a predisposition to the disease which may possibly be distributed through the system, but which more probably has its seat in some among the tissues of the body." To those opinions Sir James would entirely conform, and if he found anything to object to, it would not be to these, but to the half-willing manner in which Mr. De Morgan makes the admission. Mr. De Morgan exalts the local element; Sir James held that we must admit both elements. For the sake of discussion he would accept all Mr. De Morgan's definitions—of "constitution," and of "cancer"—except that he would perhaps hesitate to admit rodent ulcer among the cancers; and he would abide by the limits set by Mr. De Morgan. If we look through the pathology of cancer we cannot doubt that there are certain cases where no constitutional cause can be found. When the scar of an old burn becomes the seat of cancer we are almost ready to say that there must have been so little predisposition to cancer that it wanted a tissue specially prepared for its development. The same might be said of some cases of cancer of the lip. Yet in these and similar cases it is frequently observed that the change to cancer is quite suddenly developed, as if there were some other circumstance in existence than the evident one. Again, when we contemplate the list of morbid growths, and trace them passing gradually from the simple fatty tumour at one end to cancer at the other, we have a difficulty in believing that cancer is a constitutional disease. If we studied the morbid growths in this connexion only, we should think of their local origin only. But if we look at the further end of the list, at rapid growth and rapid destruction, so unlike all local disease, we must admit another pathology; or we must say that in the great group of tumours there is at one end a constitutional element, and at the other little or none. Sir James wished to insist upon this constitutional factor in the origin of cancer, and he would draw attention especially to the following points in its history where this is particularly prominent:—First, the manner of its inheritance; not the mere fact of its inheritance, but the manner of this. This cannot be over-estimated. The more he saw of cancer in families whose history was accurately known, the more was he impressed with the hereditary nature of the disease. At first among hospital patients he believed cancer was inherited in one in six cases; but he came to estimate the proportion at one in four. Now in private practice, where the family history is well known, the proportion has risen in his experience to one in three. And at the same time it must not be forgotten that all cases of cancer are not recognised—for example, internal cancers,—and that persons may die of some other disease before cancer has manifested itself in them. For if a man has not lived to the usual term of life, it cannot be said that he would not have had cancer. Cancer is a disease of degeneration, increasing in frequency of occurrence with age. Cases are far from rare where the offspring dies of cancer before the parent; the parent may refuse to acknowledge a cancerous history in the family, but after a few years he himself falls a victim to the same disease. Sir James was disposed to hold that it is not possible to conceive of such a disease without inheritance. But local diseases are also inherited, and he does not adduce this as a proof of constitutional origin. Fatty tumours, cutaneous cysts, cartilaginous tumours, and malformations, are all inherited. He would not, therefore, connect the constitutional character of the disease with the mere fact of inheritance, but with the manner of the inheritance. When a constitutional disease is inherited, it does not necessarily occur in the offspring in the same organ or tissue as in the parent. Fatty and cartilaginous tumours, cutaneous cysts, and malformations appear in corresponding tissues in the offspring. This is a rule in these growths; but there is in no sense such a rule of imitation in the case of cancer. This fact is illustrated by the cases of cancer published in the *Medical and Chirurgical Society's Transactions* by Mr. Baker, in one-half of which there is no rule in the locality of the recurrent growth—for example, cancer of the cheek in the parent may be followed by cancer of bone in the child. There is no relation of place or of texture. He had himself seen one instance of the total disregard of rule in this way. A lady died of cancer of the stomach; one daughter of cancer of the stomach, and another of cancer of the breast. Of her grandchildren, one died of cancer of the breast, one of cancer of the bladder, one of cancer of the rectum, and one of cancer of the stomach. In this respect the transmission of cancer accords with the transmission of all other constitutional diseases, such as gout, syphilis, and tuberculosis. It would be well to study cancer alongside other diseases which we are agreed to call constitutional, such as gout, syphilis, scrofula, and tuberculosis. Gout may make its appearance in the joints, skin, bronchial tubes, or lungs respectively of different members of the offspring of a gouty subject, and so with the other diseases enumerated. The effect of injuries on the production of cancer is in favour of its being included in the class of constitutional diseases. In a very large number of cases cancer follows an injury, and that so distinctly that the two occurrences cannot be disconnected. Now, we know the limits of possible effect of an injury on a tissue as well as we know anything in pathology,—inflammation, induration, overgrowth, and so on, or, at most, the production of some tumour like the tissue injured. When there is a decided deviation from this recognised course, we say there is some constitutional element at work. If a knee-joint suppurates instead of healing after a moderate injury, we say the patient is scrofulous. So in injuries to bones; so in gouty persons; and so in syphilitic subjects. This is as certain knowledge as any we possess in pathology. It is but the reading of the same fact with altered terms in the case of cancer. We say it is a constitutional tendency, and this opinion is much strengthened in those cases where we know there is a cancerous inheritance. Thus, a cancerous mother has a son; his lip is irritated by the pipe, and the ulcer becomes cancerous. The production of cancer by an injury is

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therefore a second reason for maintaining its constitutional nature. The next circumstance which indicates strongly the constitutional element in the origin of cancer is its recurrence after complete removal. Mr. De Morgan spoke of its "almost constant" recurrence; but Sir James Paget would say that the cases are not more than 1 in 500 where the disease does not recur, and such an exception might exist without affecting the general question. In 1 case in 500 the constitutional predisposition may be exhausted, or other cause come into play. We do not say a person is not scrofulous if after amputation of a limb he has no fresh local outbreak. After all, however, the question is the contrast of cancer in this respect with other tumours. Now, these do not reappear after operation in more than one in 500. The case is a very strong one; and we must remember that in our statistics we include all the records of strange cases. At the Pathological Society, for example, cases of simple tumours are brought forward more frequently when they happen to recur. Now, suppose one were to make a series of experiments, and perform vivisection—which such operations really are—500 times, he would be considered a bold man if he thought it necessary to repeat his experiments because the five hundredth case gave a different result from the others; and that all the more if he performed a second series of the other kind. He would not use the single exception to overthrow the rule. But this is also true in regard to the manner of reproduction. Some tumours which are not cancerous recur after removal. The tumours which Sir James has called "recurrent fibroid tumours" recur again and again, and cannot be extirpated but by the removal of the whole limb which is their seat. He had himself once removed a tumour for the eighteenth time in seven or eight years from the thigh of a young woman. She died of pyæmia; but had she lived the growth would probably have required removal again and again until the limb was sacrificed. Now, there is no such case in the whole history of cancer. He had removed another tumour for the seventh time; and a third and fourth time may frequently occur. But such is never seen in cancer; it would recur in distant organs. It is vain to attempt to explain this difference of seat of recurrence by any facts of difference of the physical condition of the tumours. It had been referred in this discussion to "mobility of cells." Now, if there is one kind of cancer that propagates faster than another, it is osteoid cancer, and yet no variety is so hard. Scirrhus is as hard as a fibroma; yet there is no comparison of their tendency to recur. On the other hand, recurrent fibroid tumours are as soft as possible, and yet they do not propagate themselves in distant parts. For this reason also, therefore, we must assume an essential difference between cancer and other growths. These circumstances impress us that we must not depreciate the constitutional element in the production of cancer. Yet Sir James is anxious not to depreciate the local element. Were he compelled to give an opinion, he would say that of the two the constitutional element is the more important. But it might be urged that cancer would thus come to be considered a blood-disease. Now, whether there is a morbid element in the blood or not, Sir James would not say. Yet, as in other constitutional diseases, we do well to hold that cancer owes *part* to the condition of the blood. If we name various tissues we have a difficulty in imagining in which of them it can exist—as muscle, nerve, etc. Sir James cannot conceive the disease as existing in the all-pervading connective tissue; he thinks it safer to say in the all-pervading blood. Analogy is in favour of this view. We have all-pervading blood-diseases which we know well, and it is to them that the likeness is found. Senile diabetes is an example in point; the production of a carbuncle from this is singular,—it is the indication of the diseased blood of diabetes. So in cancer. The same applies in scurvy, and in what is called uræmia—all are blood-diseases. But it has been said that if cancer is described as a blood-disease, there are certain conditions which cannot be understood. These have been enumerated by Mr. De Morgan. But his objections apply to all or any other blood disease. First, that the poison should exist in the blood, and yet no indication be observed previous to the local outbreak. But does not the same occur in gout? Who feels so well as the subject of gout just before an acute attack? In the same way there are intervals in the history of syphilis and of scrofula. This argument is not more powerful, therefore, against cancer than against gout. Secondly, Mr. De Morgan urges that, during the existence of cancer, injuries may be inflicted on other parts of the body and no cancer result. This objection is met like the preceding. An attack of gout has been known by Sir James to follow an operation, but the healing of the wound is not locally affected by the blood-disorder. Thirdly, the long intervals of health in the subject of cancer may be similarly explained. Such intervals are familiar in the course of syphilis, gout, tuberculosis, or any other blood-disease. Fourthly, it has been said to be incompatible with the blood-origin of cancer that it does not affect secondarily the part it affects primarily. But the same holds true of gout and syphilis. Every one of these objections, therefore, applies equally strongly to any blood-disease whatever. The last objection which Sir James would notice to cancer being a blood-disease is that of its preponderance in women. This objection is easily answered. Cancer is a disease of degeneration, and we are misled if we think it anything else. The exceptions prove the rule. There exist in women two organs which are not found in men, and which have a period in their life-history corresponding with senile decay—the breast and the uterus. Now, if we separate these organs, we find that cancer is more common in men. These organs become senile at forty or fifty, and they should be compared with the organs of a man at eighty. It is this senile degeneration that is the sole cause of the preponderance of cancer cases in women. Pathology, said Sir James, would be the most repulsive of all studies did it not bring along with it some hope of good to be derived from it in respect of treatment. It had been urged in this discussion that the treatment of cancer was encouraging if it were considered a local disease. He would hold the very opposite opinion. All our attempts to cure cancer locally have totally and entirely failed. As far as therapeutics have yet gone they have been especially successful in providing remedies for constitutional diseases. The remedy for syphilis is as far removed from it as is one end of the world from the other. And yet mercury will cure the disease, not only in the parent, but in the child. Some day, perhaps, a remedy may be found for cancer as unexpected and as sure as mercury for syphilis—a remedy which may affect even the second generation. Sir James Paget concluded with the hope that, considering the great importance of the constitutional element in cancer, we shall not try to depreciate it either in the question of the pathology of the disease or in the search for its final remedy.

(*To be continued.*)

MEDICAL NEWS.

ROYAL COLLEGE OF SURGEONS.—At a meeting of the Council on the 12th inst., the following Members of the College were admitted Fellows, viz.:—Charles Frederick Hodson, L.S.A., Bishop's Stortford, Herts, diploma of Membership dated December 22, 1837; and William Lodewyk Crowther, Hobart Town, Tasmania, March 12, 1841 (the honorary gold medal of the College was awarded to this gentleman in 1869). At the same meeting of the Council, Mr. William Laidlaw Purves, a Licentiate of the Edinburgh College of Surgeons (July 23, 1864), was elected a Member *ad eundem*, and Mr. Thomas Dickson, L.R.C.P. and F.R.C.S. Edin., was admitted a Fellow *ad eundem*.

APOTHECARIES' HALL.—The following gentlemen passed their examination in the Science and Practice of Medicine, and received Certificates to practise, on Thursday, March 12:—

Clay, James Hemingway, Matlock, Bath.
French, Alexander Martin, Chatham.
Klein, Leopold Martial, Lower Norwood.

The following gentlemen also on the same day passed their primary professional examination:—

Hope, James William, St. Bartholomew's Hospital.
Murrell, William, University College.

APPOINTMENTS.

*** The Editor will thank gentlemen to forward to the Publishing-office, as early as possible, information as to any new Appointments that take place.

ASTON, JOHN PITNEY, L.S.A.—Medical Officer of Health for Idle, Yorkshire.

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BANKS, W. MITCHELL, F.R.C.S., Lecturer on Anatomy in the Liverpool Royal Infirmary School of Medicine.—Assistant-Surgeon to the Royal Infirmary, *vice* Reginald Harrison, F.R.C.S., appointed Surgeon.

CAMERON, JOHN—Medical Officer to the Trenart, Ardnamurchan, and Mordart Districts of the Parish of Ardnamurchan, Argyleshire.

GARLIKE, EDWARD W. BENNETT, M.R.C.S. Eng., L.R.C.P. Edin.—Medical Officer for the Cheshunt District of Edmonton Union.

HEAVEN, CHARLES THOMAS, M.R.C.S. Eng., L.S.A.—Medical Officer for the Colsterworth District of Grantham Union.

LEONARD, JOHN, M.R.C.S.—Resident Surgeon to the Royal Infirmary for Children and Women, Waterloo-bridge-road, S.E.

MACKENZIE, STEPHEN, M.B., M.R.C.S. Eng.—Assistant-Physician to the London Hospital.

SAUNDERSON, ROBERT, jun., M.D., L.R.C.S.I., L.M.K.Q.C.P.I.—Medical Officer for the Rhode Dispensary District of Edenderry Union, King's County.

TALBOT, JOSEPH B.—Assistant Medical Officer to the Salop and Montgomery Counties Lunatic Asylum.

TOWNSHEND, R. N., M.D.—Medical Officer to the Queenstown Electoral Division of Cork Union.

TURNER, A. C., M.R.C.S., L.R.C.P.—Medical Officer for District No. 1 and the Workhouse, St. Neot's Union.

NAVAL AND MILITARY APPOINTMENTS.

ADMIRALTY.—In accordance with the provisions of an Order in Council of February 22, 1870, Surgeon J. Whyte, M.D., has been placed on the retired list of his rank. The undermentioned officers have been promoted to the rank of Staff-Surgeon of the second-class in her Majesty's Fleet—W. Redmond, J. Bradley, R. Nelson, W. J. Thomason, B. H. M'Curdy.

WAR OFFICE.—MEDICAL DEPARTMENT.—Surgeon-Major T. Carey retires upon temporary half-pay; Surgeon G. Park, M.D., to be Surgeon-Major, *vice* T. Carey, retired upon temporary half-pay.

BIRTHS.

ALCOCK.—On March 10, at 9, Grosvenor-road North, Rathmines, co. Dublin, the wife of Daniel R. Alcock, R.N., Staff Surgeon, second-class, H.M.S. *Victory*, of a son.

CHEADLE.—On March 12, at 2, Hyde-park-place, Cumberland-place, W., the wife of W. B. Cheadle, M.D., of a son.

DUDGEON.—On March 7, at 53, Montagu-square, the wife of R. E. Dudgeon, M.D., L.R.C.S., of a son.

HART.—March 10, at Great Baddow, Essex, the wife of W. Hart, L.R.C.P. Edin., M.R.C.S. Eng., L.S.A., of a daughter.

HEAD.—On March 6, at East Grinstead, the wife of Robert J. Head, L.R.C.P., etc., of a son.

JONES.—On March 12, at Clarence House, Southend, the wife of George Francis Jones, M.R.C.S. Eng., of a son.

WHITMARSH.—On March 11, at Albemarle House, Hounslow, the wife of William Michael Whitmarsh, M.D., of a daughter.

MARRIAGES.

FOX—HOUGH.—On February 17, at St. John's, Colaba, Bombay, Thomas C. A. Fox, 49th (Princess Charlotte of Wales) Regiment, son of the late Thomas Fox, Deputy Inspector-General of Hospitals, to Emily F., daughter of Captain H. W. Hough, late 32nd Light Infantry.

FOX—REDDIE.—On March 10, at Holy Trinity Church, Upper Chelsea, Charles Henry Fox, M.D., of The Beeches, Brislington, near Bristol, fourth son of F. K. Fox, M.D., of Brislington House, to Sarah Charlotte, eldest daughter of Major-General George Bard Reddie, Bengal Army (retired), of 10, Somerset-place, Bath.

HENMAN—GRIMBLY.—On March 10, at Banbury, Walter James Henman, Esq., of Bedford, eldest son of J. Henman, Esq., of Stagsden, West End, to Caroline, second daughter of R. Grimbly, M.R.C.S., Banbury.

LEES—IRVINE.—On March 16, at Pitlochry, Perthshire, Frederick P. Lees, son of James Lees, Esq., Victoria-park, Manchester, to Jessie Marion Stewart Irvine, daughter of William Stewart Irvine, M.D., Craigatin, Pitlochry.

MUMMERY—LOCKHART.—On March 12, at Lewisham, John Howard Mummery, M.R.C.S., son of John R. Mummery, Esq., Cavendish-place, W., to Mary Lily, eldest daughter of William Lockhart, F.R.C.S., of Blackheath.

DEATHS.

EBSAGE, THOMAS, F.R.C.S. Eng., L.S.A., suddenly, at his residence, 6, York-terrace, Leamington, on March 15.

HOME, HANNAH PRISCILLA, wife of A. Home, M.D., J.P., of Whitfield, at Mount Æolus, Portobello, N.B., on March 14.

REID, ELIZA, widow of the late William Reid, M.D., at her residence, 31, Lower Mount-street, Dublin, after a lingering illness, on March 10, aged 64.

ROCHE, WILLIAM SYLVESTER, M.B., B.A., R.N., of 32, Rectory-place, Woolwich, killed accidentally at London-bridge Railway Station, on March 4, aged 44.

WOODMAN, CAROLINE, wife of John Woodman, F.R.C.S., at 2, Chichester-place, Exeter, on March 11.

WOODMAN, FREDERICK, M.D., L.R.C.P. Lond., M.R.C.S. Eng., at Bedford House, Deal, on March 15, aged 84.

VACANCIES.

In the following list the nature of the office vacant, the qualifications required in the Candidate, the person to whom application should be made, and the day of election (as far as known) are stated in succession.

BARRY COUNTY ASYLUM, MOULSFORD, WALLINGFORD.—Assistant Medical Officer. Candidates must be duly qualified. Applications, with testimonials, to Dr. R. B. Gilland, Medical Superintendent.

BIRMINGHAM AND MIDLAND FREE HOSPITAL FOR SICK CHILDREN.—Resident Medical Officer. Candidates must be duly qualified. Applications, with testimonials, to the Medical Committee, Children's Hospital, Steelhouse-lane, on or before March 23.

COUNTY AND BOROUGH LUNATIC ASYLUM, SNENTON, NOTTINGHAM.—Assistant Medical Officer. Candidates must be duly qualified and registered. Applications, with testimonials, to the Chairman of the Committee of Visitors, on or before March 26.

KILBURN DISPENSARY.—Senior Resident Medical Officer; also Assistant Resident Medical Officer. Candidates must be duly qualified. Applications, with testimonials, to the Honorary Secretary, 30, Boundary-road, Finchley-road, N., on or before April 6.

LANCASTER COUNTY ASYLUM.—Assistant Medical Officer. Applications, with testimonials, to the Superintendent.

LUNESDALE UNION.—Medical Officer. Applications, with testimonials, to Mr. R. Stephenson, Hornby, near Lancaster, on or before March 25.

MIDDLESEX HOSPITAL.—Assistant-Physician, Assistant Obstetric Physician, and Dental Surgeon. Applications, with testimonials, to the Weekly Board, on or before March 31.

NARBERTH UNION.—Medical Officer. Candidates must be duly qualified. Applications, with testimonials, to Mr. John Thomas, Clerk, on or before March 21.

NORTH LONDON CONSUMPTION HOSPITAL, HAMPSTEAD.—Candidates must be F. or M.R.C.P. and graduates of a university (or qualify within twelve months). Applications, with testimonials, to the Secretary, Mr. W. Hornibrook, at the offices, 216, Tottenham Court-road, W., on or before April 15.

ONGAR UNION, ESSEX.—Medical Officer. Applications, with testimonials, to Mr. Charles Mott, Chipping Ongar, on or before March 23.

QUEEN'S HOSPITAL, BIRMINGHAM.—House-Physician, also House-Surgeon. Candidates for these appointments must be legally qualified medical practitioners and registered. Applications, with testimonials, to Mr. W. Young, Secretary, on before March 21.

WILTS COUNTY LUNATIC ASYLUM, DEVIZES.—Assistant Medical Officer. Candidates must be duly qualified. Applications, with testimonials, to the Clerk to the Committee of Visitors, on or before March 25.

UNION AND PAROCHIAL MEDICAL SERVICE.

*** The area of each district is stated in acres. The population is computed according to the census of 1871.

RESIGNATIONS.

Bridgwater Union.—Mr. J. C. Pritchard has resigned the Seventh District; area 7840; population 1715; salary £34 per annum.

Guildford Union.—Mr. Charles H. Furnivall has resigned the Albury District; area 8190; population 2934; salary £60 per annum.

Lunesdale Union.—Mr. H. W. A. Sandell has resigned the Workhouse; salary £11 per annum. Also the First District; area 40,906; population 8300; salary £60 per annum.

Pocklington Union.—Mr. Daniel Widdas has resigned the Sutton-upon-Derwent District; area 14,718; population 2205; salary £24 per annum.

St. Neot's Union.—The Fifth District is vacant; area 9840; population 2642; salary per case.

APPOINTMENTS.

Dursley Union.—Patrick O'Connell O'Doyle, L.R.C.S. Ire., L.K.Q.C.P.I., to the Third District.

Essex.—Henry Letheby, B.M., and Charles M. Tidy, B.M., as Analysts for the County for one year.

Huddersfield Union.—James Osborne, M.D. & M.C. Glasg., to the Woodhouse District. James S. Cameron, M.D. Edin., M.R.C.S. Eng., to the Huddersfield South District.

Llanfyllin Union.—Wm. W. Evans, L.R.C.P. Edin., L.R.C.S. Edin., to the Llanfair District.

A MEETING of the Society of Medical Officers of Health will be held at the Scottish Corporation Hall, Crane-court, Fleet-street, this evening (Saturday) at 7.30, when Dr. T. O. Dudfield will read a paper, entitled "The Private Slaughter-houses, considered with reference to the Report of the Select Committee of the House of Commons (Noxious Businesses), 1873."

WEST KENT MEDICO-CHIRURGICAL SOCIETY.—The sixth meeting of the above Society was held on Friday evening, March 6, at the Royal Kent Dispensary, Greenwich-road; F. Moon, M.B., President, in the chair. J. Braxton Hicks, M.D., F.R.S., read a paper "On Paracentesis Abdominis in Ascites, complicated with Tumours," and "On Incontinence of Urine in Women." Prior Purvis, M.D., exhibited the heart of a child aged ten months, with only one auricle and ventricle.

Mr. B. KEMP, of Horbury, has been awarded a gratuity of £23 18s. by the Local Government Board for successful vaccinations during the last year.

WE understand that Mr. Alfred Cooper, F.R.C.S., was appointed to attend upon their Royal Highnesses the Duke and Duchess of Edinburgh from St. Petersburg to England.

THERE were registered in London last week 1524 deaths, showing 187 below the average. Of these 52 were from measles.

A MEETING was held last week at Zurich, for the discussion of Sir Henry Thompson's proposal, that cremation should be substituted for burial. The principal speaker was Professor Kinkel. The subject met with a very favourable reception in a crowded meeting.

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NOTES, QUERIES, AND REPLIES.

Be that questioneth much shall learn much.—*Bacon.*

Dr. Clarke, Tweedside, Barbadoes.—Enclosure received.

B. Mildren.—Apply to Mr. Stone at the College of Surgeons.

Dr. Dewes, Coventry.—Our position is this. Vaccination has undoubtedly done incalculable good; but there is also now no doubt that syphilis has been communicated along with the vaccine virus,—truly, in an infinitely small number of cases as compared with the numbers vaccinated, nevertheless in some. We hold it therefore to be the duty of Government to provide the alternative of heifer vaccination for those who may desire it; for experience has shown that the continuous supply of heifer vaccine can only be kept up by public instead of private effort. See the works of Marson, Gregory, and Seaton.

Dr. McM., Liverpool.—The practice has been discontinued some years. Formerly the presidents of the Royal Colleges of Physicians and Surgeons of London for the time being made an annual report to the National Vaccine Board, and received a gratuity of 100 guineas. An economical Whig Government abolished it, and at the same time cut off the two fat bucks or does (according to the season) annually supplied to the Council of the College of Surgeons from the royal parks.

An Ancient Member.—The Honorary Gold Medal of the London College of Surgeons has only been presented five times since its establishment in 1800, when it was awarded to Professor James Wilson. In 1822 Mr. James Parkinson received it; the veteran Joseph Swan (now upwards of eighty years of age) obtained it just half a century ago; in 1834 Professor George Bennett, F.R.S., of Sydney, had it awarded for his many and valuable contributions to the Hunterian Museum, for which reason it was also given to Mr. W. L. Crowther, of Hobart Town, in 1869. The latter gentleman was elected a Fellow of the College at the last meeting of the Council.

Erinensis.—Dr. James Macartney was Professor of Anatomy in Trinity College, Dublin, for a quarter of a century. We always thought he was an Englishman, but Dr. Mapother states that Armagh had the honour of his birth.

Associate, King's College.—Sir Wm. Fergusson's paper, with illustrations, on "Cleft Palate and Staphyloraphy" will be found in the *Medical Times and Gazette*, vol. xvi., p. 49 *et seq.*

How shall Young Ladies be Flogged?

TO THE EDITOR OF THE MEDICAL TIMES AND GAZETTE.

SIR,—I have lately been appointed physician to a good ladies' school in a large country town, and was asked by the principal what mode of correction I would recommend as least likely to prove injurious to the young ladies. Can any of your experienced readers give me a hint on the above subject? Long impositions and confinement would, I fear, prove dangerous to health. I have a strong suspicion that nothing would be so little likely to injure as the birch, but I did not like to recommend that for young ladies. I partly recommended a leather strap for the hands as preferable to the ruler or cane. Do your readers agree with this, and are they of opinion that the cane or ruler is in any respect dangerous? Also, is there any risk in flogging a girl on the shoulders? A scar there would possibly prevent her appearing in evening dress for years, but is there any risk of it? Is the leather strap as useful and as little likely to injure as the birch, and may it be applied in the same way, or the birch used on the hands? Also, have your readers any experience of a slight riding-whip, which she calls a riding-rod? She says it is quite harmless when applied to the gloved hands, but it seems to me that it is as likely to injure as the cane.

I am, &c.,

Dublin, March 16. COUNTRY PHYSICIAN.

P.S.—Answers would be equally useful for physicians of boys' schools.

A.—Spurzheim was originally assistant to Dr. Gall. He enlarged the science of phrenology, which, once so popular, seems now improved off the face of the earth.

Mead and Woodward's Duel.—When these famous doctors fought their duel, Mead disarmed Woodward, and bade him beg for his life. "Never till I am your patient!" said Woodward.

Obesity.—Dr. Cheyne, the great Bath physician, is said to have reduced himself by temperance and exercise from the enormous weight of thirty-two stone to eleven.

G. B.—Horace Hayman Wilson's collected works are published by Trübner (1862). He was a surgeon in the Bengal Establishment, afterwards Boden Professor of Sanskrit in the University of Oxford.

Armament. Chirurg., Stockwell.—We claim as the inventor of the sewing machine a member of our profession—viz., Mr. William Rawlins Beaumont, of Toronto, a Fellow of the London College of Surgeons. Mr. Edward Lund, of Manchester, another Fellow of the College, invented the useful lever corkscrew bearing his name, but which he gave to his late brother.

Arg. Nit.—A strong solution will deaden the surface it is applied to, and so cause no pain, because it has destroyed that which feels pain. A weaker solution may be more irritating, because it merely excites the surface—makes it more vascular and sensitive.

A Question of Relationship.

TO THE EDITOR OF THE MEDICAL TIMES AND GAZETTE.

SIR,—Will you kindly inform me in your interesting "Notes and Queries" whether there was any, and if so what, relationship between the celebrated Sir Charles Mansfield Clarke and Dr. John Clarke, a lecturer on midwifery?

I am, &c., ARCHÆOLOGIST.

*** The gentlemen were brothers, sons of a surgeon, who made a curious investment for his wife in the purchase of one of the curiosities of Fleet-street—viz., Mrs. Salmon's exhibition of moving wax-work, situated where Messrs. Priest's banking-house now stands. Mrs. Clarke, the mother of these gentlemen, continued the exhibition as Mrs. Salmon's, at 189, Fleet-street, until 1795, when it was removed nearly opposite, and here shown until Mrs. Clarke's death in 1812. On the death of Dr. John Clarke, he left a large fortune and extensive practice to his brother, Charles Mansfield Clarke, who was assisted by his nephew Mr. Stone. The following was his epitaph:—

"Beneath this stone, shut up in the dark,
Lies a learned man-midwife, y'clept Doctor Clarke.
On earth, while he lived, by attending men's wives,
He increas'd population some thousands of lives:
Thus a gain to the nation was gain to himself;
And enlarg'd population, enlargement of pelf.
So he toil'd late and early, from morning till night,
The squalling of children his greatest delight.
Then, worn out with *labours*, he died skin and bone,
And his ladies he left all to Mansfield and Stone."

Large Doses of Calomel.—The celebrated James Annesly advocated the use of large doses of calomel in the early stage of fever, hepatitis, and dysentery, for the purpose of acting as a sedative on the stomach, and relieving the tendency to vomit, of clearing away mucus from the duodenum, and of producing a copious flow of cystic bile. His practice was supported by the results of experiments on dogs; for he found that on giving one, two, and three drachms of calomel to three dogs respectively, the stomach of the dog which had taken the largest dose was much less vascular than that of the other two, and than that of a healthy dog. He did not believe that calomel "acted on the liver," but asserted that, by sweeping out the duodenum and irritating the orifice of the ductus communis choledochus, it removed obstructions and promoted the flow of the bile from the gall-bladder. He was an enemy to the practice of giving frequent small doses of mercury, and looked on salivation as an evil in the cases for which he prescribed his large doses.

P.—George Young, an eminent conversationalist and surgeon in large practice, died in 1850. See "Memoirs of Charles Mayne Young," and Crabb Robinson's "Diary." He was brother of Sir Charles Young, Garter King-at-Arms, and of the late Surgeon Young, of Sackville-street.

Mr. Seward on Opium-Smoking in China.

"The books we have read at home, and the discussions we have heard there as well as here, have prepared us to see the disastrous effects of opium-smoking on every side in China. . . . We are agreeably disappointed, however, by the absence of evidence of the evil fruits of this practice which we had anticipated. Except in the den where we purposely went to seek the vice and its victims, we have not met in any part of the country a person of either sex or of any age whose appearance, conversation, or conduct indicated an excessive indulgence. Europeans and Americans here agree in representing the practice as wide-spread and pernicious, but when interrogated concerning their observation, they assure you that they know of a coolie, a house-servant, a mechanic, a clerk, perhaps a trader, who has become inefficient or unreliable by the indulgence. But the best-informed persons agree that cases of this kind are neither more frequent nor more extensive than those of habitual alcoholic intemperance in the United States. Moreover, we are inclined to think that the cost of the drug, when balanced against the low wages of labour, lifts the abuse beyond the reach of the working classes."—*William H. Seward's Travels around the World, New York*, 1873.

N.—The fear which patients feel or affect to feel, of rudeness, roughness, or want of kindness at the hands of great practitioners, seems very irrational. In Crabb Robinson's "Diary," it is gravely stated that "My sister consulted Astley Cooper. She was delighted to find him far from unkind or harsh"!

B. M.—The late Dr. Mason Good had the reputation of being a very learned man, a student of Hebrew, and commentator on the Bible. His "Study of Medicine," once a great authority, is now never consulted. It is quite in an antiquated style, prevalent before precision was aimed at in medicine.

Tyro.—Portions of the liver and the entire spleen have been removed again and again. For the kidney the proposal is, we believe, modern.

New Tracks.—Phosphorus has already been tried in cholera as well as in many other hopeless diseases, and—without prejudice to its alleged reputation in certain nervous diseases—has been as successful in cholera as many other remedies, because, as patients have recovered to whom it has been administered, it cannot be said to add much to the mortality.

COMMUNICATIONS have been received from—

Mr. Frame, Comber; Dr. Aitken, Inverness; Mr. Head, East Grinstead; Mr. J. W. Groves, London; Mr. Eastes, London; Mr. Alfred Cooper, London; Mr. W. Hyslop, Church Stretton; Dr. F. Griffiths, Sheffield; Dr. Vincent Richards, Calcutta; Dr. F. R. Hogg, India; Mr. B. Vincent, London; Mr. G. Brown, London; Dr. Fayrer, London; Country Physician; Dr. Carson, Coleraine; Mr. T. P. Pick, London; Dr. Stephen Mackenzie, London Mr. D. Kerr, Edenderry; Dr. C.

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HANDFIELD JONES, London; Mr. J. ASHBURTON THOMPSON, London; Dr. SPARKS, London; Mr. T. SPENCER WELLS, London; Mr. J. CHATTO, London.

BOOKS RECEIVED—

How to Behave: a Manual of Manners and Morals, by T. L. Nichols, M.D.—Gardner on "Longevity"—Untersuchungen über die Vegetationsformen von Coccobacteria Septica, von Dr. Theodor Billroth-Schwalbach, by Theodor Fritze, M.D.—Report of the Medical Officer of Health on the Sanitary Condition of Sheffield—Gli Animali Martiri I loro Protettori e la Fisiologia, del Dottore A. Herzen—Sopra il Metodo Seguito negli Esperimenti sugli Animali Viventi nel Laboratorio di Fisiologia di Firenze Cenni, del Professore M. Schiff—Dr. Shepherd's Introductory Address delivered at St. Mary's Hospital—Leçons Cliniques sur les Maladies des Voies Urinaires Professées à University College Hospital de Londres, par Sir Henry Thompson, traduites, annotées, et augmentées d'une Introduction Anatomique par les Docteurs J. Hue et Gignoux—Hyslop's "Cheerful Words"—The Psychology of Scepticism and Phenomenalism, by James Andrews—May's British and Irish Press Guide.

PERIODICALS AND NEWSPAPERS RECEIVED—

Lancet—British Medical Journal—Medical Press and Circular—London Medical Record—Nature—Pharmaceutical Journal—Gazette des Hôpitaux—Galloway Gazette—Gazette Hebdomadaire—Allgemeine Wiener Medizinische Zeitung—New York Medical Journal—The Scotsman—La Tribune Médicale—Gazette Médicale—La France Médicale—Le Progrès Médical—Berliner Klinische Wochenschrift—Irish Hospital Gazette—Bulletin Général de Thérapeutique—The New York Druggist—Bulletin de l'Académie de Médecine, Nos. 1 to 10—The Pocket Edition of the Gleaner—Monthly Review of Dental Surgery.

APPOINTMENTS FOR THE WEEK.

March 21. *Saturday* (*this day*).

Operations at St. Bartholomew's, 1½ p.m.; King's College, 2 p.m.; Charing-cross, 2 p.m.; Royal Free, 9 a.m. and 2 p.m.; Hospital for Women, 2½ a.m.; Royal London Ophthalmic, 11 a.m.; Royal Westminster Ophthalmic, 1½ p.m.; St. Thomas's, 9½ a.m.

ROYAL INSTITUTION, 3 p.m. Mr. C. T. Newton (Keeper of Greek and Roman Antiquities, British Museum), "On Mr. Wood's Discoveries at Ephesus."

23. *Monday*.

Operations at the Metropolitan Free, 2 p.m.; St. Mark's Hospital for Diseases of the Rectum, 2 p.m.; St. Peter's Hospital for Stone, 3 p.m.; Royal London Ophthalmic, 11 a.m.; Royal Westminster Ophthalmic, 1½ p.m.

MEDICAL SOCIETY OF LONDON, 8 p.m. Mr. Thomas Bryant, "Foreign Body discharged through Abdominal Parietes." Dr. Cockle, "A Case of Labial Carbuncle followed by Pyæmia" (by Dr. Cockle and Mr. J. Blackstone). Dr. Tuchman, "On a New Instrument to aid in Diagnosing Disease of the Bladder and Kidneys" (will be read by Mr. Woodhouse Braine, Hon. Sec.).

ROYAL COLLEGE OF SURGEONS OF ENGLAND, 4 p.m. Mr. W. K. Parker's Lecture on "The Structure and Development of the Vertebral Skull."

24. *Tuesday*.

Operations at Guy's, 1½ p.m.; Westminster, 2 p.m.; National Orthopædic, Great Portland-street, 2 p.m.; Royal London Ophthalmic, 11 a.m.; Royal Westminster Ophthalmic, 1½ p.m.; West London, 3 p.m.

ANTHROPOLOGICAL INSTITUTE, 8 p.m. Meeting.

ROYAL INSTITUTION, 3 p.m. Prof. Tyndall, "On the Physical Properties of Liquids and Gases."

ROYAL MEDICAL AND CHIRURGICAL SOCIETY, 8½ p.m. Dr. J. M. Cuningham (Sanitary Commissioner with the Government of India), "Recent Experience of Cholera in India." Mr. R. Brudenell Carter, "On an Improved Method of Abscission of the Anterior Portion of the Eyeball.",

25. *Wednesday*.

Operations at University College, 2 p.m.; St. Mary's, 1½ p.m.; Middlesex, 1 p.m.; London, 2 p.m.; St. Bartholomew's, 1½ p.m.; Great Northern, 2 p.m.; St. Thomas's, 1½ p.m.; Samaritan, 2½ p.m.; King's College (by Mr. Wood), 2 p.m.; Royal London Ophthalmic, 11 a.m.; Royal Westminster Ophthalmic, 1½ p.m.

ROYAL COLLEGE OF PHYSICIANS, 5 p.m. Lumleian Lectures—Dr. Sibson, "On the Influence of Bright's Disease (1) on the Heart and Arteries, and (2) in the Production of Inflammation."

ROYAL COLLEGE OF SURGEONS OF ENGLAND, 4 p.m. Mr. W. K. Parker's Lecture on "The Structure and Development of the Vertebral Skull."

26. *Thursday*.

Operations at St. George's, 1 p.m.; Central London Ophthalmic, 1 p.m.; Royal Orthopædic, 2 p.m.; University College, 2 p.m.; Royal London Ophthalmic, 11 a.m.; Royal Westminster Ophthalmic, 1½ p.m.

HUNTERIAN SOCIETY (London Institution), 8 p.m. Open Meeting.

ROYAL INSTITUTION, 3 p.m. Prof. W. C. Williamson, "On Cryptogamic Vegetation—Ferns and Mosses."

27. *Friday*.

Operations at Central London Ophthalmic, 2 p.m.; Royal London Ophthalmic, 11 a.m.; South London Ophthalmic, 2 p.m.; Royal Westminster Ophthalmic, 1½ p.m.; St. George's (ophthalmic operations), 1½ p.m.

CLINICAL SOCIETY, 8½ p.m. Dr. Cayley will read a "Case of Hæmoptysis." Mr. Warrington Haward, "A Case of Blood-Cyst of Hand." Dr. Packard (of Philadelphia), "Bracketed Splint for Excision of the Knee or for Compound Fracture" (communicated by Mr. Callender).

QUEKETT MICROSCOPICAL CLUB, 8 p.m. Mr. E. T. Newton, "On the Preparation of Microscopic Sections of Soft Tissues."

ROYAL COLLEGE OF PHYSICIANS, 5 p.m. Lumleian Lectures—Dr. Sibson, "On the Influence of Bright's Disease (1) on the Heart and Arteries, and (2) in the Production of Inflammation."

ROYAL COLLEGE OF SURGEONS OF ENGLAND, 4 p.m. Mr. W. K. Parker's Lecture on "The Structure and Development of the Vertebral Skull."

ROYAL INSTITUTION (Weekly Evening Meeting, 8 p.m.), 9 p.m. Prof. A. C. Ramsay, "The Physical History of the Rhine."

VITAL STATISTICS OF LONDON.

Week ending Saturday, March 14.

BIRTHS.

Births of Boys, 1124; Girls, 1112; Total, 2236.
Average of 10 corresponding years 1864-73, 2293·5.

DEATHS.

	Males.	Females.	Total.
Deaths during the week	777	747	1524
Average of the ten years 1864-73	800·3	755·5	1555·8
Average corrected to increased population	...	...	1711
Deaths of people aged 80 and upwards	...	...	49

DEATHS IN SUB-DISTRICTS FROM EPIDEMICS.

	Population, 1871.	Small-pox.	Measles.	Scarlet Fever.	Diphtheria.	Whooping-cough.	Typhus.	Enteric (or Typhoid) Fever.	Simple continued Fever.	Diarrhœa.
West	561359	...	14	2	...	12	...	2	2	1
North	751729	...	7	2	1	13	1	7	2	4
Central ...	334369	...	10	1	...	8	...	3	...	1
East	639111	1	8	10	...	14	...	4	...	1
South	967692	...	13	7	1	19	3	8	5	1
Total	3254260	1	52	22	2	66	4	24	9	8

METEOROLOGY.

From Observations at the Greenwich Observatory.

Mean height of barometer	29·867 in.
Mean temperature	35·7°
Highest point of thermometer	55·3°
Lowest point of thermometer	22·6°
Mean dew-point temperature	30·6°
General direction of wind	N.W. & W.S.W.
Whole amount of rain in the week	0·27 in.

BIRTHS and DEATHS Registered and METEOROLOGY during the Week ending Saturday, March 14, 1874, in the following large Towns:—

Boroughs, etc. (Municipal boundaries for all except London.)	Estimated Population to middle of the year 1874.*	Persons to an Acre. (1874.)	Births Registered during the week ending Mar. 14.	Deaths Registered during the week ending Mar. 14.	Temperature of Air (Fahr.) Highest during the Week.	Lowest during the Week.	Weekly Mean of Mean Daily Values.	Temp. of Air (Cent.) Weekly Mean of Mean Daily Values.	Rain Fall. In Inches.	In Centimetres.
London	3400701	45·1	2236	1524	55·2	22·6	35·7	2·06	0·27	0·69
Portsmouth ...	120436	26·8	71	67	56·2	23·2	37·6	3·11	0·10	0·25
Norwich	82257	11·0	48	42	52·2	20·0	33·8	1·01	0·32	0·81
Bristol	192889	43·3	163	92	...	...	...	...	...	...
Wolverhampton ...	70896	20·9	61	19	51·3	19·4	34·9	1·61	0·29	0·74
Birmingham ...	360892	43·0	279	198	51·7	22·3	36·1	2·28	0·39	0·99
Leicester	106202	33·2	119	42	49·0	18·0	34·9	1·61	0·40	1·02
Nottingham ...	90894	45·5	55	51	55·7	18·1	35·2	1·78	0·34	0·86
Liverpool	510640	98·0	352	274	48·5	25·5	38·3	3·50	0·59	1·50
Manchester ...	355339	82·8	240	222	53·0	11·0	35·6	2·01	0·76	1·93
Salford	133068	25·7	93	84	50·6	14·9	34·9	1·61	0·75	1·90
Oldham	86281	18·5	76	63	46·0	...	...	...	0·67	1·70
Bradford	163056	22·6	177	72	51·4	21·8	35·4	1·89	0·20	0·51
Leeds	278798	12·9	199	150	53·0	22·0	36·8	2·66	0·28	0·71
Sheffield	261029	13·3	198	134	53·0	20·7	35·8	2·12	0·20	0·51
Hull	130996	36·0	92	59	50·0	16·0	33·1	0·62	0·53	1·35
Sunderland ...	104378	31·6	81	59	...	...	...	...	...	...
Newcastle-on-Tyne	135437	25·2	95	78	48·0	20·0	33·2	0·67	0·79	2·01
Edinburgh	211691	47·8	128	85	...	...	...	...	...	...
Glasgow	508109	100·4	390	295	48·3	23·0	37·0	2·78	0·36	0·91
Dublin	314666	31·3	199	178	53·0	22·9	39·0	3·89	0·15	0·38
Total of 21 Towns in United Kingdm	7618655	36·6	5352	3788	56·2	11·0	35·7	2·06	0·43	1·09

At the Royal Observatory, Greenwich, the mean reading of the barometer last week was 29·87 in. The lowest was 29·37 in. on Monday evening, and the highest 30·34 in. on Saturday morning.

* The figures for the English and Scottish towns are the numbers enumerated in April, 1871, raised to the middle of 1874 by the addition of three years and a quarter's increase, calculated on the rate which prevailed between 1861 and 1871. The population of Dublin is taken as stationary at the number enumerated in April, 1871.

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ORIGINAL LECTURES.

ON THE

CLINICAL OBSERVATION AND PRACTICAL ESTIMATE OF MORBID TEMPERATURE.

AN INTRODUCTORY CLINICAL LECTURE.

By T. LAYCOCK, M.D.,
Professor of the Practice of Medicine and Clinical Medicine in the University of Edinburgh.

(*Concluded from page* 312.)

The Feeling of Cold is a Neurosis—Cases of Rigors as a Neurosis, with Thermal Illusions—Local Thermal Hyperæsthesia, Anæsthesia, and Illusions, and their Use in Diagnosis—Case from De Haen: his Method of Observing—Training of the Unaided Senses.

To understand rigors practically, it is necessary to analyse the constituent phenomena. A person whose temperature is lowered sufficiently, as in a cold bath or otherwise, turns pale, or even livid; the muscles of his jaws and limbs are thrown into short contractions, so that his jaws chatter, and he shivers and shakes. At the same time certain muscular structures of the skin, of the hair-bulbs, and perhaps the sweat-glands, contract, so that his skin gets rough as well as pale, and likened to the skin of a plucked goose. But the same kind of change sometimes takes place when a feeling of horror is experienced; and hence this cuticular contraction of hair-bulbs is termed "horripilation,"—and the Greek word *rigeo* means to be horrified as well as chilled. A severe fever or inflammation of a viscus often begins with rigors; and an intense rigor is a very serious symptom in surgery. So that there are the rigors of cold, of a neurosis, of emotion, of diseases. What is there in common as to these? About thirty-eight years ago I used the thermometer experimentally in hospital practice, being induced to do this by reading the clinical reports of De Haen, an eminent clinical professor at Vienna, as given in his "Ratio Medendi" of 1759-65. De Haen was a most accurate thermometric observer, especially as to fevers. It is instructive to learn how for almost a whole century his valuable method and observation have been lost to science and art, simply by that neglect which is so commonly the lot of too advanced men. He particularly noted that in the case of a quotidian intermittent, the patient complained most loudly of the cold during the so-called cold stage, although the thermometer was *everywhere* at 104° Fahr., while the complaints diminished as the thermometer fell to 100°, 99°, and 98°. The pulse during the cold stage was, as is usual, quick, small, and contracted. De Haen tested, and objected to, a current mechanical theory—revived, I think, by Virchow—that the heat of persons is due to the increased friction of the blood in the bloodvessels, and he uses this case for that purpose; but at the same time he seems to have been of opinion that the man was really cold internally—which, indeed, may have been the case,—although hot externally, and he says that his fever was not of that kind termed a *leipuria*, in which the patient is cold externally, yet thirsty and burning internally, and which is said to be fatal—such a condition as we have, in fact, in cholera collapse. Now, we can take advantage of modern psychological science to explain these conditions. The patient in a rigor, even when wrapped up, feels cold on the surface of the body, although he is really hotter than natural. How is this? Because his nerve-centres are in the same condition as if the temperature of the surface had been lowered. Hence we can conclude, further, not only that the feeling is a thermal neurosis, but that lowering the temperature of the body, as by cold, induces such a neurosis, which neurosis causes the feeling of cold, the convulsive tremors of the jaws and limbs, the contraction of the muscles of the hair-bulbs, the contraction of the vessels, inducing pallor, and increased heat-production.

It is an experimental fact that lowering the temperature of the surface within certain limits does induce increased heat-production; and it is a fact, too, of daily occurrence, although not recognised, that up to a certain degree of cold there is enough heat produced to keep the body at the specific temperature of (say) 98·5°. Of course the local phenomena which result from the direct chilling down locally are of a different class; but these general phenomena due to cold are as much neurotic as the tremblings, pallor, and horripilation of fear and terror.

This view of rigors as a thermal neurosis, however induced, disposes of the theory so generally held as if it were an axiom—that abnormal coldness is due to vaso-motor spasm, and abnormal heat to vaso-motor palsy; in each case the blood, and not the tissues, being supposed to be the source of temperature. And this theory is a source of fallacy in observation and treatment; for as it is not the fact that there is necessarily diminished heat with diminished circulation and pallor, so neither is there necessarily increased heat with more active circulation and congestion. So that redness and flushing by no means necessarily imply an increase of temperature. There must be other conditions, for the laws of vital heat are complex. The state as to vital energy of the tissues themselves, their condition as to innervation, the state of the blood and of the lymphatics, as well as of the capillaries and their conditions as to innervation, are all factors in causation. This is true especially as to the temperature and tissue-changes of inflammations. As a general rule, the more the blood and the lymphatics are affected asthenically, the less the evolution of heat; so that effusive inflammations, and those with œdema, are of lower temperature than those without. This was shown lately in the case of a member of the class now suffering from a smart attack of small-pox. With a temperature above 101° before the eruption was well developed, it fell below 100° after a copious effusive or vesicular eruption appeared.

Again, fevers and inflammations beginning with rigors have a reaction and a rise in temperature (if there be reaction) in some degree proportionate to the intensity of the neuroses which the rigor indicates, the reaction itself termed fever being also a thermal neurosis. But, as to thermal neuroses specially, patients often complain of one limb being warmer or colder than another, or of local feelings as to temperature. These are often fallacious, and three real conditions may be indicated—first, either there is what *is* felt; or, secondly, that the limb is colder when it is felt to be hotter; or, thirdly, *vice versâ*.

It is almost an equal chance, I think, that it may be any one of the three. The feeling is one thing, the actual condition is another, and you may observe local variations in temperature without the patient having any feeling of difference. I think, in visceral inflammations, this is far more commonly suspected; just as we observe local sweats and œdemas over morbid viscera, so we may find local differences in temperature. Undoubtedly the hand is the readiest means of ascertaining whether there be any such difference, but for accurate observation the thermometer is needed. It is inconvenient, however, for you require two or three thermometers to be used. You will therefore find it useful to educate your touch so as to detect the more readily local and comparative changes in temperature, which may be done by always feeling the temperature of a patient when you have noted it thermometrically. In this way, if yourselves be in health—for if you yourselves be feverish the patient may not feel to be so hot as he is,—you may learn to judge the temperature of a patient to one degree, or even less. Besides, there is a certain pungency as to touch experienced in touching some cases of which the thermometer tells nothing, as it is distinct from the burning feeling.

A usefully practical method of considering these thermal neuroses is to assume that there is a special set of nerves and nerve-centres for regulating temperature. Although, however, I only "assume," I think the theory is capable of proof. According to this view there are afferent or sensory, and efferent or motor nerves, and heat is produced as molecular motion instead of visible and mechanical motion. And since the only painful sensations that can be induced thermally are painful feelings of heat and coldness, these are the neuralgiæ of the thermal sensory nerves. Hence, just as there may be pain induced by local injury to sensory nerves, or by changes in the nerve-fibrils or nerve-centres, constituting neuralgic pains, so with the thermal. Again, there is often thermal hyperæsthesia and anæsthesia,—in the former case the patient being unduly sensitive to changes of temperature, as in the beginning of fevers; in the other, insensible. Hence the practical conclusion that illusions of the patient as to localised temperature, with corresponding comparative differences, indicate neurotic origin—either a nerve or nerve-centres are affected. If one leg be cold and another warm, there is either a local or a spinal or a hemiplegic thermal neurosis; if the sensation be of cold when the limb is warm, and *vice versâ*, it is spinal, since this is probably due to crossed action of the thermal sensory nerves on the cord. De Haen was evidently ignorant of the psychological fact that

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there are illusions and delusions as to temperature, nor apparently did he know that the nervous system had a direct influence on the tissues as to the evolution of heat. The theories then current, as now, were physical, and either mechanical or chemical. But he details a case in proof that heat is not due to the friction of the blood in the vessels, which I will detail to you because it illustrates a common class of thermal neurosis—viz., thermal palsy. Towards the end of the year 1755 a woman became apoplectic during parturition. Four days afterwards, on recovering her consciousness, she was found to be palsied. Presently she experienced an intolerable feeling of cold in her right hand, which was not relieved by a degree of heat sufficient to scorch her clothes; wandering or neuralgic pains were felt in the hand, and were especially near the elbow. On examination at the hospital, her hand was found to be quite cold and wasted, but the artery at the wrist was beating as strongly as on the sound side. Whence, then, the coldness, since the arterial action and circulation were going on normally? It could not be due to want of friction of the blood. In February, 1757, she returned to hospital in the same state, with this difference—that the left hand was also cold, even at midsummer, although not paralytic, indicating crossed thermal palsy. She was ordered treatment by electricity. In April, 1758, she returned, saying that she had benefited by the treatment, but that during the last seven weeks she had been worse than ever. The paralytic fingers of the right hand were now seen to be contracted, wasted, and marbled in colour with white, red, purple, and livid patches. They were all painful on touch, more especially the middle finger near the root of the nail. The thumb was not painful, but it was drawn to the palm, and the muscles wasted. De Haen had the woman placed near the stove, and, with the temperature of the room at 70° F., he fastened a thermometer to the affected hand, enclosing all in a woollen binder; he also placed a thermometer in the axilla of the same arm. In a quarter of an hour the reading of the latter was 96°, of the former 73°—a difference, as De Haen observes, of 23°. In the meanwhile the pulse was just as good in the palsied arm as in the other. What then, he asks, of the theory of production of heat by friction?

It would have added to the interest of such a case if the sensibility to temperature had been also tested. I have had a modification of the ordinary æsthesiometer made for this purpose, by fixing two round knobs instead of the pricking points, and applying them at a temperature just tolerable to the operator's own touch. In a case of aphasia in Ward 3, I find a marked difference in the sensibility to temperature of the two hands.

I must not omit his (De Haen's) treatment. Fearing that gangrene might come on, he had the mottled hand fomented with a strong decoction of Peruvian bark, giving it also freely by the mouth. This relieved all the local symptoms, and he then treated his patient by electricity so successfully that she was able at last to use the hand in her domestic duties. The value of the fomentations was perhaps chiefly in their hotness, for I think there is no single remedy so powerful and at the same time so readily available in certain cases of palsy and other neuroses as heat moderately used—I say "moderately," for too high a temperature long used will exhaust. This use of heat is well shown in the treatment of rigors, in which, although the temperature of the surface be 5° to 6° above the specific heat, still hot applications are beneficial; just as in the cases of collapse, in which the temperature is below the normal. So that a merely high temperature without reference to causation is not a good guide for cold affusions or hot-air and vapour-baths. In rigors we apply heat successfully in accordance with the feelings of the patient, although he be already too hot, and so remove the cause of the hotness and the rigors—the condition of the thermal nerve-centres. I think we as yet know too little of these causes of fever to adopt what may be termed axioms for heroic cooling measures. Very often a high temperature means a special morbid state of the nervous system; so that while it may be held as undoubtedly useful to cool down from so high a temperature as 106°, the rule should not be absolute. Morbid heat itself exercises an action on the tissues, so that we have to consider not only how it is produced, and where, but how it may act locally. Thus in fever there may be a hot heart and increased cardiac action because of the hotness, as I think there is; or there may be diminished temperature in fever, and a feebly acting heart. This may be the case in instances of both rigors and collapse as well as in low fevers.

A few words as to the reading of the thermometer. De Haen was very particular in using the thermometer so as to avoid fallacies of observation. It is now generally thought the application for a few minutes will serve to indicate the temperature. De Haen objected to this, as to the thermometers he used. He says, "Not once nor ten times only, but over and over again, have I repeated the same experiments with similar results. If the thermometer be placed in the axilla of a healthy man for half a quarter of an hour, it denotes 95° to 96°; if for a whole quarter, 97° to 98°; for half an hour, 100° to 101°; for a whole hour, 101° to 102°." Beyond this he never observed the thermometer to rise in healthy men if applied for two hours. "When," he goes on to say, "we apply the thermometer in like manner to the sick, the same order is observed. If, after the first half-quarter of an hour it marks 100° of febrile heat, after a quarter of an hour it will be 101° to 102°, in half an hour 102° to 103°, in an entire hour 103° to 104°. In continued fevers the temperature may be marked at 106° in half an hour, and at 109° in an hour—sometimes 103° in half an hour, 105° in an hour.

From all these researches he infers that the temperature of neither the healthy nor the sick has been properly ascertained, because too short a time has been allowed in using the thermometer; and he is emphatic in saying that objection need not be taken to his facts on the ground of the imperfections of his thermometers, since they were made specially for him by the best makers, whom he names. Although it is more than probable, however, that the century's experience has improved the clinical thermometers, the comparative results of observation remain the same.

In using the thermometer it must be remembered that there will be differences in rapidity of cooling of the skin, and these will modify the results. Hidden in the rectum and vagina, or covered up in the axilla, the reading will be higher for the same time than if sticking out of the mouth; and it ought not to be forgotten that when the axillary temperature is taken it is only that of the one axilla—the temperature of the other or of the groins may be different. And hence the need of a thermal *tactus eruditus*, a trained touch, so that the physician can feel different portions of the body in rapid succession. Although it would not be difficult to construct instruments specially adapted to determine local temperature rapidly, I do not think it would be advisable or possible to use such except for pathological research. The exigencies of ordinary practice would not allow of their use. The trained hand is, on the other hand, always available. Indeed, as a general rule, the naked senses, trained by the use of exact instruments, are more useful than when untrained and helped by instruments, just as a child should be independent of a go-cart.

Train your senses, therefore, gentlemen, while you have an opportunity; and whatever instruments you use to train your senses, use them so that you may be able to judge as to physical conditions independently of these aids. You are in the go-cart, learning to walk medically—so use it, then, that you may work readily as skilful physicians.

ORIGINAL COMMUNICATIONS.

ON FOREIGN BODIES LODGED WITHIN THE EYE.

By C. S. JEAFFRESON, F.R.C.S.E.,
Surgeon to the Eye Infirmary, Newcastle-on-Tyne.

THERE is no class of cases in the whole range of surgery to which more painful interest attaches than that in which foreign bodies are, or are supposed to be, lodged within the deeper structures of the eye. They usually produce great mental despondency in the subjects of them, for the tendency of the uninjured eye to sympathise with the injured one is thoroughly understood by the public. Text-books of ophthalmic surgery treat very briefly of these injuries, and the rules laid down for general practitioners, in the absence of special skill and advice, are not to my mind sufficiently succinctly and definitely expressed.

Now, there is one rule in ophthalmic surgery which will help us to deal with a large class of these cases, and it is this: *That an eye which has been damaged by accident or disease, and which is no longer useful for visual purposes, is a dangerous organ, and should be removed.* I do not wish to assert

that this rule should always be rigidly carried out as regards eyes which have been destroyed by idiopathic disease, although I think, in these cases, a rigid conformity to it would rarely carry us astray. In traumatic cases I firmly believe that it can never safely be departed from, and should be carried out as soon as we have convinced ourselves that the visual power is gone, or will be so low as to be practically useless. Scarcely a day passes in my public and private practice without my seeing a case of sympathetic ophthalmia, which might have been averted had this rule been thoroughly understood by the bulk of practitioners; and every year a large number of persons are consigned to a life of darkness and misery from a want of appreciation of the importance of it. Patients have a great horror of enucleation, and require usually a great deal of pressing to submit to it; and for this reason the surgeon must be firm and unflinching, and must indicate the necessity for action in the most forcible language.

Now, in by far the larger number of cases in which foreign bodies are lodged in the deeper parts of the eye, the visual power will have been destroyed immediately, or will certainly depart after a few days, and it will only be in exceptional cases that difficulty will arise in determining what should be done.

Sometimes we may have an opportunity of extracting the foreign body, and there are some few cases on record where intruding substances have been extracted from the vitreous chamber. One I shall quote further on, which occurred in my own practice, but it rarely happens that the combination of circumstances is sufficiently favourable to allow of this course being pursued. In my experience the vitreous becomes very quickly turbid after an injury, and the chance of extraction is slight, unless the patient is seen almost immediately after the accident, and when the position and relation of the foreign body can be unmistakably made out. Indiscriminate fishing for the intruding substance (a practice I have seen adopted more than once) is much to be deprecated, and can lead to no good results. Sometimes we may have strong reasons, from an examination of the track of the wound and other circumstances, for suspecting that the foreign body lies in a certain position, although we may not be able to see it. It is then justifiable to make a small incision in the sclerotic over the suspected spot; and cases are on record where this has been done with success. I need scarcely say these operations should never be undertaken by persons wholly unpractised in the delicate manipulations of ophthalmic practice. When patients are seen soon after an accident, it seldom happens that there can be much difficulty in deciding whether a foreign body is embedded in the vitreous or not, especially when it has passed through the cornea and iris, or lens, and there is little blood effused. It may be more difficult to diagnose between simple penetration and lodgment when the wound is made directly through the sclerotic, as we naturally miss the visible evidence of wounded intraocular structures.

What should, then, guide our treatment in doubtful cases? In my opinion the following circumstances:—

1. If there are the slightest signs of sympathetic ophthalmia in its fellow, the injured eye should be immediately excised.

2. If vision is absolutely lost beyond hope of recovery, the eye should be sacrificed.

3. If the wound is in the ciliary region, and there is no prospect of really useful vision, the eye should be excised.

4. If the wound is not in a dangerous region, and the impaired vision seems to be in great measure due to effused blood, I should not advise immediate operative interference.

When once we have made up our minds that enucleation is necessary, is it advisable to wait till acute inflammatory symptoms have in a measure subsided? For my own part I think not. I have frequently performed enucleation during the most acute inflammatory stages, and I never have seen any bad results follow. I believe by following this rule we may frequently curtail a great deal of pain and anxiety which would have been incurred by waiting.

When foreign bodies are lodged in the anterior chamber, lens, or iris, they are generally clearly visible, and may usually be removed without much difficulty whilst the structures are still transparent. When they are lodged in the lens, no time should be lost, for sometimes it happens that a body which remained *in situ* whilst the lens was firm, disappears behind the iris when the lenticular matter becomes diffluent, and, if extraction be attempted at this period, special care must be employed, as the lenticular matter not unfrequently flows out, leaving the foreign body hidden by, or entangled in, the folds of the iris.

Occasionally a foreign body which has been lodged in the eye will escape spontaneously. This occurred in a case which I mention below:—

Case 1.—*Foreign Body in the Vitreous Twelve Years—Enucleation.*

S. K., a gentleman, consulted me about his left eye, which had been wounded whilst he was studying engineering, at one of the large firms on the Tyne, twelve years ago. The eye, he said, had been struck by a piece of metal, and, the aqueous immediately escaping, he noticed the sight was greatly impaired. A surgeon saw him immediately after, and told him he had extracted the foreign body. After a long period of suffering, the inflammatory symptoms subsided, but the sight was gone. The eye is slightly reduced in size—T—2; iris contracted; pupil blocked with lymph. There is no perception of light. The anterior chamber contains some effused blood, which the patient says has supervened within the last two or three days, without any apparent cause. For years his eye has never troubled him, but latterly he has had disagreeable sensations in it, and its fellow has felt irritable, although the sight is perfect, and there is an absence of any sign of disease. Enucleation of the injured eye was performed, when a large chip of metal was found lying on the floor of the vitreous chamber; it was loose, and had in all probability become recently detached from its adhesions.

Case 2.—*Shot Wound of the Right Eye—Enucleation.*

S. T., a young gentleman, was brought to me a few hours after his right eye had been struck by a shot. The wound was in the lower and outer part of the eye, close to the ciliary region. The pupil was drawn in the direction of the wound, and a small piece the size of a pin's head protruded. The lens was as yet clear, but the vitreous was cloudy in great measure from effusion of blood. No view of the deeper structures of the eye could be obtained. There was no great amount of pain, and but slightly increased vascularity. He could see no objects, but could distinguish light from dark.

In this case, judging from the symptoms and the fact that the patient was not distant more than forty yards from the gun which had discharged the shot, there could be little doubt that penetration had occurred, and the wound being in the ciliary region confirmed the necessity of immediate enucleation. The proposal was strenuously resisted for several days by the parents, and it was not until acute inflammatory symptoms had supervened that the operation was permitted. After removal, although there was only one aperture of entrance, two shots were found in close proximity embedded in the tunics at the back of the eye. The fact of two shots entering by one aperture is curious, and might have led to a false sense of security had extraction been practicable and only one been extracted. The circumstance may throw some light on the following case.

Case 3.—*Shot Wound of Left Eye—Enucleation two years after.*

J. G., a gamekeeper, whilst driving grouse, was struck in the eye by a shot. He was taken to a surgeon, who he says extracted it and showed it to him. The eye, however, inflamed; he was confined to the house for some weeks, and the sight was lost. He came to me two years after on account of a dazzling which he had noticed in the sound eye. A careful examination of it revealed no trace of organic disease or diminished visual power. The injured eye was free from pain or tenderness, but slightly diminished in size. The pupil was contracted and blocked with lymph. The conjunctiva was not injected, but the sclerotic had a faint yellowish-red tint, which I have before noticed in some of these cases when blood has been effused into the deeper structures of the eye. In this case enucleation was performed, and a shot was found embedded in the remains of the choroidal structures. The vitreous chamber contained a large quantity of bloody serum. In this case, if my patient was correct, two shots must have penetrated; yet the scar of but one wound was visible.

Case 4.—*Shot Wound of the Eye—Penetration Doubtful—Recovery.*

C. H., a lad, aged 16, was struck in the eye by a shot from a gun. The person who fired was at a considerable distance, and it was hoped the shot had not penetrated. On examination, five hours after the accident, I found a wound of the sclerotic to the inner side of the ciliary region, and there was some considerable injection of the eye. The pupil was

active and the lens transparent. Vision was lost in a great part of the temporal half of the visual field, and its acuteness much diminished in the nasal half; but I could not test it very satisfactorily, owing to the boy being more than usually stupid. On dilating the pupil with atropine, a dim outline of a portion of the fundus could be seen, but there was evidently a considerable amount of blood effused in the part of the vitreous immediately adjoining the wound. Under these circumstances it was considered advisable to keep the patient under strict supervision, and I formed the impression that the foreign body must have rebounded without penetrating. Ice compresses were applied at intervals, the patient confined to bed, and atropine instilled into the eye twice a day. In four days the sclerotic wound was healed; in eight days vision began to improve; and at the end of two months vision was almost completely restored.

Case 5.—Foreign Body in Eye Spontaneously Discharged.

W. T., a stonemason, came to the Eye Infirmary in this town. Whilst dressing a stone, a small chip, the size of a large pin-head, flew off and struck his eye. There was a wound in the lower part of the cornea, close to the limbus, and behind this a corresponding aperture in the iris. Vision seemed comparatively little injured, and the aqueous had partially reaccumulated in the anterior chamber. The media of the eye were quite transparent, and there was not much pain or inflammation. A belladonna lotion was ordered, and the patient directed to report himself daily. On the fourth day, he stated that on waking he felt a gritty sensation in the eye, and on looking in the glass the piece of stone was seen impacted in the corneal wound. After winking a few times it escaped, and he brought it to show me. After this the wound healed, and the eye is now perfectly sound. The aperture in the iris still, however, remains visible.

Case 6.—Foreign Body in Vitreous—Extrication by Canula Forceps.

L. A., an engineer, was struck by a piece of metal which flew from a lathe at which a comrade was working. There was a wound in the lower and outer portion of the sclerotic of the right eye, about one-eighth of an inch from the cornea. On dilating the pupil a foreign body was seen embedded in the vitreous, a little above and to the nasal side of the visual axis. Chloroform was administered, and a fine pair of canula forceps passed along the tract of the wound till it came in contact with the foreign body. The blades were then opened, and it was seized and removed without difficulty. For some weeks after the vitreous was very hazy, and the sight much impaired; gradually, however, it began to improve. Two months after $V=\frac{1}{10}$, and it was still improving when he removed to another town and I lost sight of him.

Case 7.—Foreign Body embedded in the Lens—Extraction.

A man, aged 35, was sent to me from the country. Whilst standing near a forge, a piece of metal struck his right eye and penetrated. When seen by me, three days after the accident, the dim outline of the body could be seen in the interior of the large and swollen lens. An incision was made in the margin of the cornea, and I attempted to remove the foreign body with a curette. The lens-matter, however, escaped, and the foreign body disappeared behind the iris. Knowing the inevitable destruction which must ensue if it were left, I enlarged the incision with a blunt-pointed knife, and performed a large iridectomy. I then felt carefully with the end of the curette, struck the body, which was a piece of iron of considerable size, and extracted it. The patient recovered with a fair amount of visual power.

Case 8.—Foreign Body occupying the Pupil—Removal.

An old man was struck by a fragment of stone. He had no idea penetration had taken place. He suffered much pain and inflammation for several weeks, but as he could see nothing when this had passed off, he applied to me. The eye was free from injection or tenderness, but occupying the area of the pupil was a darkish mass the size of a millet-seed. The wound of the cornea through which the foreign body had entered was perfectly healed and scarcely discernible. The iris looked healthy, but its attachments to the intruding substance would not allow it to dilate. A small marginal corneal incision was made, and the piece of stone readily extracted. The patient, who lived at a distance, would return home. When he next presented himself, there was a slight prolapse of the iris; this was snipped off, and he is now doing well. The interest of this case is to be found in the fact that a foreign body, especially a piece of stone, should remain in contact with the iris and produce so little disturbance.

THE LEPER HOSPITAL, MADRAS,

WITH AN ACCOUNT OF THE LATEST REMEDIES PROPOSED FOR LEPROSY, AND THEIR RESULTS.

By W. J. VAN SOMEREN,
Surgeon-Major, First District, Madras.

This institution was opened on April 14, 1816. It was then distinct from, but connected with, the adjacent almshouse, known as the "Monegar Choultry." The Choultry Managing Committee managed the Leper Hospital also. This arrangement continued until July 1, 1840, when the Hospital's connexion with the Choultry ceased, and its inmates came to be fed and clothed by Government. At that time the Lazaretto became a purely Government institution, to the advantage of its stability, its efficiency, and its usefulness.

When I took charge of the Leper Hospital on July 7, 1858, it consisted of three main blocks of buildings, one of which constituted the apothecary's quarters and wards for female lepers, both Eurasian and native; the second was allotted to European and East Indian male lepers; and the third accommodated native males. In 1859 two more blocks were added, and opened in September of that year for the entertainment of native males. As time advanced, however, even this addition proved inadequate, and it became necessary to incorporate the adjacent epidemic ward of the native infirmary with this institution, and to build two other large blocks to meet the demand for more accommodation. This led to a re-allotment of the lepers generally to the several blocks of buildings as they now stand.

[We are sorry we cannot print the plan which Dr. Van Someren sends us. It shows the buildings arranged in blocks over a very large garden. They consist of apothecaries' quarters and out-offices, walled off from the rest of the institution; a block consisting of three wards for native females—one for adults, one for young persons, and one for the sick,—besides bath-rooms; a block with two wards for European and Eurasian females, with bath-rooms; and a small block for latrines, for Europeans and natives. In the large part of the ground allotted to male patients is one block for European and Eurasian male lepers, containing four wards for adults, one ward for the young, a refectory, and four sick wards; with an adjoining block for latrines and baths. Five blocks are tenanted by native male lepers, there being two wards in each, and in two of them a single long ward in addition; one block is used for native male youths below fifteen, and one as an infirmary. Besides these there are a steward's room for bedding, clothing, and stores; a surgery for medicines; a dead-house; two kitchens for natives and Europeans; bath-rooms; latrines on the dry-earth system for the natives; lumber-rooms; fowl-house, etc.]

There are five wells which supply the garden and baths with water. Whatever of this fluid is needed for culinary and drinking purposes is obtained from the best well in the premises of the adjacent native infirmary.

I.—Furniture and Clothing.

Furniture.—Throughout the institution, cots with iron frames and wooden planking are used; and on the centre of the upright at the bed-head, a socket is provided for the reception of each patient's docket-holder. The docket is also a monthly diet-sheet, which is daily filled in with the diet and extras prescribed by the physician at his morning visit. For bedding, each Eurasian patient has a quilt with cotton and a quilt without cotton, spread on the planking of each cot. A scarlet blanket neatly folded lies across the foot of the bed, and there are two pillows stuffed with cotton at its head. Each native lies on two quilts without cotton, and has one pillow stuffed with straw at his head, and a blanket at his feet. Each European and Eurasian patient is provided with a small table, which has an upper and lower ledge, placed close to his bed, on one or other side near his head. The wards for Europeans and East Indians are also furnished with tables and chairs, some of the latter being easy and favourable for reclining on. In the European female wards, the walls are hung with pictures, the positions of which are changed once a week.

Clothing.—Of Natives: The clothing of men consists of a

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white cloth, and that of the women of a red cloth. Each patient wears two clean cloths a week. Of Europeans and East Indians: Each male leper wears a pair of gingham trousers and a gingham coat over a white shirt. Two suits are issued weekly to those who do not, and three suits to those who do, work in the garden. Each woman wears a white chemise under a chintz skirt, and a white jacket, of which two clean suits are issued weekly. She is also provided twice a week with a clean nightgown. Flannel undergarments are given to those who, especially in the cool season, require such additional protection. All these patients are provided with a pair of slippers each.

II.—Number and Arrangement of Patients.

The Lazaretto has accommodation for 40 female and 104 male patients, including those in the several sick wards. The native female wards accommodate 24, and the Eurasian 16; the native male wards 80, and the Eurasian 24. The present state of the Hospital, given below, is lower by 4 than it was on February 1, 1874, and the numbers fluctuate between 90 and 118.

Present State of Leper Hospital, February 9, 1874.

Class and Sex of Patients.		Adults.	Youths.	Total.
Europeans	Males	15	5	20
	Females	5	1	6
Natives	Males	54	3	57
	Females	21	3	24
Grand total		95	12	107

All patients sick with intercurrent affections of any gravity are separated from the lepers generally, and treated in one or other of the sick wards.

III.—Establishment.

This is as follows:—One assistant apothecary, one steward, two peons, two cooks, one cook's assistant, four coolies, two ward-women, three male scavengers, one female scavenger, one washerman, and one gardener.

[Of the duties of these servants, we need only give those of the coolies and toties; the former male nurses, the latter scavengers].

Duties of Ward Coolies.

I. Ward coolies will assist in the washing and dressing of all sores, and will perfect themselves in the art of bandaging.

II. At night they will sleep in a verandah of their ward, when not required by the particular illness of a patient to lie near his bed.

III. They will always be present, each in his proper ward, prepared for the call and the help of any patients who may require their services.

IV. They will assist in the distribution of food at mealtime, under the direction of the steward.

V. They will bring to the notice of the apothecary any patient who is unable to eat either the whole or any part of his food.

VI. They will be held responsible for the cleanliness of all the movables in the wards, and fined if any of them are found foul with dust or the droppings of birds.

VII. The ward coolies will assist the peons in preventing communications either at the gates or between the railings with any strangers or passers-by.

Duties of Toties.

I. These servants will sweep the floors of all the wards, as well as attend constantly to the cleanliness of the latrines.

II. They must not allow a single dropping in the latrine to remain uncovered with earth, and with this view will train the patients to cover their own ordure with a sufficient amount of earth from the reservoirs. They will bring to the notice of the apothecary any failure in this respect on the part of the patients.

III. They are strictly prohibited from dressing the patients' sores, although they may hold vessels for the reception of soiled dressings and the discharges of sores, while these are being dressed by the medical subordinates and coolies.

IV. They will, in their several wards, convey bedpans to bed-ridden patients who require them, remove them as soon as they are done with, and clean them without delay. In the performance of this duty they will be careful that the bedding and patient's clothes are not soiled, and his person properly cleaned.

V. They will assist the gardener in maintaining the garden in good order.

(*To be continued.*)

REPORTS OF HOSPITAL PRACTICE IN MEDICINE AND SURGERY.

GUY'S HOSPITAL.

CASES UNDER THE CARE OF MR. BIRKETT.

(*Continued from page 265.*)

Case 3.—Tumour in Region of Anterior Superior Spine of Ilium.

William I., aged 21, admitted into Lazarus ward, November 10, 1873; a warehouseman; has always enjoyed good health since he recovered from some disease of the hip when four years old. There was never any discharge from the hip, but there is shortening of the limb.

In April or July last (so he puts it) he fell over a crane and struck the lower part of his belly. He felt no pain at the time, nor did he notice any swelling subsequently, until seven weeks had elapsed, when after lifting some heavy loads he found a lump in the left groin, which had been increasing slightly. He has not had the slightest pain in it.

On admission the left lower limb is in all respects smaller than the right; its length is two inches and three-quarters less than the right. Immediately to the inner side of the left anterior superior spinous process is a round swelling which occupies nearly the outer half of Poupart's ligament. It is elastic, and there is decided impulse on coughing, and it has all the feeling of a sac containing bowel, but it cannot be reduced at all under pressure, and it cannot be made out to have any deep connexions. The external ring feels normal. The swelling is quite painless, and no thickening can be detected in the deeper parts of the pelvis in the region of the psoas. The spine is normal.

The patient left the hospital on December 9, in much the same state. The nature of the tumour was not determined upon.

Case 4.—Swelling in Right Groin.

John L., aged 24, a bargeman, of good family history and good general health, was admitted into Lazarus ward on September 8. He stated that on the 6th, whilst at work, he slipped and fell against the side of his barge, knocking the inside of his right thigh. He felt but little pain at the time, and walked home without difficulty. In the evening a swelling appeared where he had knocked himself. This kept increasing in size till he was admitted. He had no sickness at the time of nor after the fall, and his bowels had acted shortly before his admission.

On admission there was an oval swelling at the inside of the right thigh, on the line of Poupart's ligament. It measured four inches in length by about three in breadth; it felt hard and nodulated, and was tender to the touch; it was painful, especially on flexing the thigh; the skin over it was not discoloured. There was not much impulse on coughing. There was no sickness, and the bowels were normal.

An ice-bag was applied to the swelling, which at times was painful. Occasionally the patient vomited between November 12 and 15, on which day the following note was made:—

"Swelling in groin has increased on Saturday and yesterday. To-day it seems to have somewhat altered its position, and a good part of it lies above Poupart's ligament. The patient feels pain in his right side."

The next day there was shivering and elevated temperature (104°), and the swelling was red upon the surface. He slept badly, and has lost his appetite.

On the 17th he was better, and the temperature had fallen to 99°. From this time he continued much about the same on the whole, though sometimes he was a little sick, and sometimes felt pain in the swelling and in the right side till October 17, when the ice was discontinued.

October 20.—The lump is rather increased in size, and seems to have moved rather lower. Does not feel so distinctly nodulated.

22nd.—The swelling is to-day much enlarged, measuring four inches across by two inches vertically. It can be partly reduced by taxis, at first directed downwards and then backwards. It speedily resumes its original size if patient coughs and pressure is removed. There is little pain on manipulation. No sensation is given to the hand such as that communicated by fluid, gases, or fæcal matter. The bowels act once a day.

27th.—Got up, and walked about.

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November 3.—Diarrhœa. Swelling in groin hard and painful along the lower margin; it appears to vary somewhat in size and shape every day.

10th.—Swelling much the same; pain is felt in it when walking, and in the abdomen on the right side as high as the umbilicus.

14th.—Left the Hospital. It was impossible to determine whether the swelling was glandular or an omental hernia.

Case 5.—Adenoid Tumour of Breast (Right)—Excision of similar Tumour from Left Breast in 1871.

Caroline L., aged 22, a seamstress, was admitted into Martha ward on October 19, 1873. She had been under Mr. Birkett in August, 1871, with an adenoid tumour in the left breast. On account of the pain suffered by the patient, the tumour was removed. The patient's family history was very unfavourable. Her father and sister died of phthisis, her mother is asthmatical, a brother suffers from severe winter cough, an aunt died of cancer in the Middlesex Hospital. She herself has been a patient for a long time at the Brompton Consumption Hospital for "weak chest and spitting of blood." About five or six months ago she noticed a pain of a dull aching character in the right breast; and some time after she felt a tumour, at first very small, and gradually enlarging at the outer side of the gland. It did not cause continuous pain, but there was at times pain of a sharp shooting character, especially severe on pressure.

On admission the tumour occupied the axillary lobe of the right breast, was nodular, and of an irregular form. It was not very large. The surrounding breast-tissue was slightly indurated; both breasts were rather massive, and on the left was seen the scar of the operation upon it. The tumour was freely movable, and the skin was not retracted.

October 26.—Chloroform. An incision was made with a scalpel about two inches long, and the growth was then enucleated with the handle. It was a little adherent at the back part of the mammary gland, a small piece of which was removed with it.

Patient was discharged well.

BRISTOL ROYAL INFIRMARY.

CASE OF OVARIOTOMY DURING ACUTE PERITONITIS.

(Under the care of Mr. TIBBITS.)

Elizabeth W., aged 22, was admitted into No. 1 ward of the Bristol Royal Infirmary, under the care of Dr. Brittan, on July 10. For about a year she had noticed that she was getting stouter, but had felt no pain or inconvenience. She was married three weeks before her admission. A fortnight after her marriage she was suddenly seized with severe pain over the abdomen, and felt inclined to go to the closet, but passed nothing. The bowels were not opened for three days. The abdomen continued to enlarge rapidly up to the time of her admission.

State on Admission.—Tongue moist, but furred; pulse 120, weak; temperature 100°; abdomen distended to about the size of the eighth month of pregnancy, dull all over in front, extremely tender, fluctuation distinct. Has recently passed very little water—not more than half a pint in the twenty-four hours. Ordered a bran poultice over the abdomen, and a grain of opium every six hours, with milk diet and four ounces of brandy.

July 18.—Tenderness gone; pulse and temperature normal. Size slightly diminished.

She was strongly advised that it was necessary that something more should be done for her before she returned home; but this she would not listen to, and left the Infirmary on August 2.

August 6.—Readmitted with similar symptoms to the previous ones. Had passed one night with her husband. Treated as before, and gradually recovered. She was now convinced that something more should be done for her, and I decided to perform ovariotomy; but as I have a strong opinion upon the advisability of not doing this operation in a general hospital, arrangements were made for her to be received into private rooms outside the Infirmary.

21st.—She was to have left for her new quarters, but after getting up in the morning felt too unwell to do so, and again went to bed. 1 p.m.: Pulse 100, very weak; temperature 98·2°. Countenance anxious. Complained of shooting pains over upper part of abdomen; no tenderness on pressure. Ordered a draught containing twenty-five minims of chlorodyne immediately, and small doses of opium every four hours. 11 p.m.: Pulse imperceptible at wrist; temperature 96·3°. Face pale and drawn; expression extremely anxious; very restless; violent paroxysms of pain, accompanied with hiccough, occurred every two or three minutes. No tenderness on pressure. Abdomen markedly more distended. Ordered the third of a grain of morphia hypodermically, and small quantities of champagne every ten minutes.

22nd.—9 a.m.: Pulse 120, barely perceptible; temperature 101°. Very restless; pain recurring at rather long intervals; no hiccough. 2 p.m.: Pulse slightly stronger; condition otherwise unchanged. That she was suffering from intense peritonitis was obvious, but whether or not this was set up by rupture of the cyst, it was impossible to determine. At any rate, it seemed to me that though it was very possible that she might die under the operation, her only chance of life lay in clearing out the cavity of the abdomen, and, desperate as this proceeding was, I determined to adopt it, my colleagues concurring in my opinion. Accordingly, at 2.15 p.m. she was placed under the influence of ether. Her pulse slightly improved during its administration. The cyst, very dark in colour and containing altered blood, was universally adherent, though the adhesions were easily broken down. The pedicle, a short one, was transfixed and tied with hempen ligature, the ends cut off short. The cavity of the abdomen was thoroughly sponged out, and the wound closed with horse-hair sutures. The parts of intestine that came into view were intensely injected. Ordered a charcoal poultice over the abdomen, and an enema containing two ounces of beef-tea, an ounce of brandy, and thirty minims of tinct. opii. She bore the operation, which occupied about a quarter of an hour, far better than I expected, and on recovering from the effects of the ether expressed herself as feeling much relieved and perfectly free from pain. 10 p.m.: Temperature 112·4°; pulse 130, stronger. No pain and only slight tenderness over the abdomen. Ordered thirty minims of tinct. opii in an ounce of camphor-water.

23rd.—9 a.m.: Temperature 103·2°; pulse 124. Free from pain. Ordered a grain of opium in pill every six hours. 12 noon: Temperature 102·2°; pulse 120. No change. 6 p.m.: Feeling more comfortable; had slept for some time. Ordered an enema of brandy and beef-tea.

24th.—9 a.m.: Temperature 101°; pulse 136. Complained of much thirst, but otherwise feeling more comfortable; no pain or sickness, and only slight tenderness over abdomen. Ordered small quantities of milk by the mouth and to continue the opium pills. 4 p.m.: During a violent thunderstorm her condition changed for the worse. Pulse 140, very weak and irregular; temperature 102·2°. From this time she gradually passed into unconsciousness, and died at 4 p.m. on the 25th, three days after the operation.

Post-mortem Examination (twenty hours after death).—Considerable recent peritonitis, and the whole of intestines matted together from previous attacks. About eight ounces of bloody fluid in cavity of abdomen. Other organs of body healthy. Rarely has ovariotomy been attempted under more desperate circumstances than those above recorded, and although the result was unsatisfactory, at one time there seemed a probability that it might have been otherwise. In some degree I think the fatal issue was due to the sudden thunderstorm. If the operation did not succeed in saving life, it undoubtedly prolonged it, and at the same time relieved suffering, for at no period after the operation was there any pain. Previously the suffering was intense. I now regret that from the time of the operation I did not regularly resort to inter-peritoneal injections, after the manner described by Dr. Peaslee in his work on "Ovarian Tumours." The intense peritonitis present at the operation was decidedly relieved by the thorough sponging out of the abdominal cavity, and it seems reasonable to believe that to have continued washing out any accumulation of the products of inflammation by means of a catheter introduced through the wound could have done no harm, and in all probability would have done good. Moreover, I cannot help believing that this plan of inter-peritoneal injections may be applicable to other than ovarian cases—as, for instance, peritonitis following after some operations for hernia. To exchange the acrid, irritating products of the lower form of peritonitis for plain water or some disinfecting fluid could hardly be disadvantageous to the patient.

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Medical Times and Gazette.

SATURDAY, MARCH 28, 1874.

THE OPEN TREATMENT OF WOUNDS.

The immediate result of the late discussion on pyæmia at the Clinical Society must, we fear, be called somewhat unsatisfactory, both on account of the small disposition to agreement which was exhibited among the speakers, and the difficulty of forming any definite opinion which presented itself to their audience and the profession in general. Yet there is every reason to hope that the ultimate effect of this debate will be greatly to the benefit of English surgery. On quitting the field where they encountered each other in a well-sustained contest, the champions of the several doctrines will not, let us hope, return to obstinately occupy their former ground. On the contrary, they will, without doubt, reconsider their position, and submit their beliefs without bias to the severest possible tests of ever-varying circumstances. One by one the various possible factors in the etiology of pyæmia will have to be reviewed by thoroughly unprejudiced judgments. Among the points which will thus have to be carefully considered, one of the most important is, without doubt, the method of treatment of wounds —especially of large operation-wounds and compound fractures. It appears to us, therefore, that the present is an opportune moment for directing the attention of our readers to a method of treating wounds, which, although by no means unknown in this country, seems to be less practised in England than the results of certain Continental surgeons would lead us to expect. We refer to the open treatment of wounds. This method has been suggested to us by the perusal of a work by Dr. R. U. Krönlein,(a) who gives the very strongest evidence in its favour from the results obtained in the surgical wards at Zürich. In this work the author has endeavoured to make a critical examination of the proceeding known as "the open treatment of wounds," by means of extensive and thoroughly reliable statistics. As is generally believed, the task of examining in a satisfactory way a new proceeding for the treatment of wounds is one of extraordinary difficulty. Such a problem is indeed very often insoluble by means of statistics; for the differences in the class of cases which occur, and in the other influences which are at work, render it next to impossible to arrive at any satisfactory conclusion. In the present instance, however, there are good reasons why it was possible to furnish a statistical report which should be thoroughly reliable. The statistics were compiled from two periods—the first extending from 1860 to 1867, and the second from 1867 to 1871; and these two periods are marked by a change in the direction of the surgical division of the Zürich Hospital—that is, a change in the person of the visiting surgeon. Between the years first mentioned the open treatment of wounds was tried only in a few cases, but in the second period it was the method generally followed. Now, during the two periods the hospital and its service remained in the same condition in every respect that can have an influence on the surgical results. The author shows this point for point to the most minute details, and the comparison of the statistical results in the two periods would seem therefore to be unquestionably justifiable. The statistics have reference to two distinct classes of cases. On the one hand there are the results of the healing of severe wounds, such as amputations and compound fractures; and on the other there is the frequency of what we will call with Billroth the "accidental diseases" of surgical patients, namely—septicæmia, pyæmia, and erysipelas.

In the first or general part of the work, Dr. Krönlein gives a very graphic account of how several German surgeons —Bartscher and Vezin, and after them, Burow,—by careful observation of the healing process, and of the bad results given by the ordinary methods of bandaging amputations, came to the opinion that it might be better to avoid bandaging of every kind, and to expose the wounds to the free access of air, without any covering. The results of amputations treated in this way were exceedingly satisfactory. Bartscher and Vezin had only three deaths out of thirty amputations, and Burow three out of sixty-two. Nevertheless, the opinion of the surgical world was not favourable to the method, and nobody seems to have tried it systematically. The statistical report we have in this work is therefore the first that shows the results of a large number of cases treated according to this method.

The special part of the work contains the statistical tables, preceded by the necessary introduction. The surgical division of the hospital at Zürich has not undergone any essential change during the whole of the two above-mentioned periods. If anything, the number of severe cases has increased every year, so that overcrowding has frequently occurred, and on that account the conditions for the healing of wounds have annually become rather less favourable. The principal maxims followed by Professor Rose (the present director of the clinic) in the treatment of wounds, are to secure absolute rest after careful arrest of bleeding, and to provide for perfect freedom of discharge and scrupulous cleanliness. Another principle is to interfere with the healing process of wounds only when special indications are afforded, and to consider stitches and bandages of all kinds as interferences to be so avoided. The air to which the wounds are freely exposed in the open treatment must, of course, be pure, and the system accordingly includes the use of energetic ventilation. In the hospital at Zürich, the ventilation is obtained only by constant opening of the doors and windows—a proceeding which, it is true, renders the heating arrangements often insufficient in winter.

Of the statistical statements we shall give here only some of the most important results, leaving the special dates to the readers of the book. From 1860 to 1867, when the open treatment was *not* employed, there died of amputations—of the

(a) "Die offene Wundbehandlung nach Erfahrungen aus der Chirurgischen Klinik zu Zürich" ("The Open Treatment of Wounds—the Experience in the Surgical Clinic at Zürich"), by Dr. R. U. Krönlein. Zürich: Schabelitz. 1872.

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thigh, 31 in 36 cases; of the leg, 21 in 36 cases; of the foot, 6 in 17 cases; of the humerus, 10 in 18 cases; of the forearm, 4 in 24 cases. On the other hand, from 1867 to 1871, under the open treatment, there died of amputations—of the thigh, 10 in 28 cases; of the leg, 2 in 11 cases; of the foot, 3 in 15 cases; of the humerus, 2 in 14 cases; of the forearm, 0 in 16 cases. The average mortality in amputations during the first period was therefore 51·4 per cent.; during the second, only 20 per cent. In cases of amputation of the breast, the average mortality during the first period was 32·3 per cent.; in the second only 13·6 per cent. The mortality of compound fractures with conservative treatment in the first period was 22 in 86 cases; in the second period 14 in 65 cases.

It is almost unnecessary for us to comment on the striking difference in these results. One is very naturally inclined to question the accuracy of the deductions; but, as we have already said, the author shows by the careful comparison of individual points that we are logically driven to attribute the better results of the second period to the change in the method of treatment, and to it only.

The occurrence of pyæmia and septicæmia was also considerably diminished in frequency during the second period. There were only 19 deaths from pyæmia out of 2300 patients during this time, whilst in the former period there were 146 deaths among 4000 patients referable to this cause. On the other hand, it is a fact which at first sight may appear remarkable that the number of cases of erysipelas was in the first period 11·5 per cent. to 15·1 per cent. in the second, showing a decided increase. But it is possible that the considerable fluctuations of temperature, which frequently occurred in winter from the energetic ventilation and insufficient heating, may have a causal relation to this.

We have given here only some of the chief results of this work, but we believe that they are sufficient to prove that it is an important contribution towards the solution of the question, at present so urgent, of the treatment of wounds, and the accidental diseases of surgical patients. We recommend the study of it to all who are specially interested in this question; and we repeat that the method of treatment which it supports would seem to deserve a fair trial in our fresh observations on the nature of pyæmia.

THE ADDITIONS TO THE BRITISH PHARMACOPŒIA OF 1867.

It may be interesting to some of our readers to know that an Appendix to the British Pharmacopœia of 1867 has quite recently made its appearance, containing thirty-four preparations of more or less importance which until now had no place in its pages. Several of the drugs in the list before us have been already in extensive use, though they now for the first time receive the sanction of the Medical Council and become officinal. In this category we may place the hypophosphites of lime and soda, chloral hydrate, mustard-paper, a solution of morphia for hypodermic injection, pepsin, and phosphorus pills and oil. The chloral appears as such, and also as a syrup, containing ten grains to the fluid drachm; and the morphia solution is weaker, but for that reason probably safer, than the ordinary hypodermic solution, and contains one grain of acetate of morphia in *twelve* minims. The pepsin corresponds to what is known as Bullock's, and is pure and unmixed with starch, so as to require a smaller dose than Boudault's. A succus belladonnæ and a succus hyoscyami are introduced into the Appendix. They are made in the same way as the old succus conii, by adding one part of spirit to three parts of the expressed juice of the leaves and branches, and form dark brown liquids, no doubt possessing powerful properties. There are three new suppositories—of carbolic acid, of morphia, and tannic acid,—in all of which curd soap (*sapo animalis*) is the vehicle, as it is also in a new pilula scammonii co., containing the resins of scammony and jalap. The reasons for using curd soap in the suppositories instead of cacao butter are not stated, and we are inclined to question whether the substitution is a good one. An ammoniated tincture of quinine makes with water a very elegant opalescent mixture. Aqua chloroformi (a solution of one part of chloroform in two hundred of water) seems likely to prove a most useful preparation; it has a pleasant taste, is quite colourless, and will serve in hospital practice not only as a substitute for the more expensive spiritus chloroformi, but also as an addition to some infusions to make them keep longer.

The yellow oxide of mercury, a more finely divided form than the old red oxide, and therefore better adapted for ointments, and oxide of bismuth, will probably be received with favour. The latter salt is said to be a better absorbent of certain gases in the stomach than the subnitrate of bismuth, and to be unaccompanied by any effervescence such as sometimes occurs with the subnitrate.

Besides the pilula scammonii co. there are three new forms of purgative medicines in the Appendix—a pulvis elaterii co. (one part of elaterium to nine of milk sugar), which will render the division of doses more easy; a liquor magnesiæ citratis in the form of an effervescing water, which *really* contains citrate of magnesia; and a pulvis glycyrrhizæ compositus, apparently a copy of the pulvis liquoritiæ co. of the Prussian Pharmacopœia, *minus* one valuable ingredient—the sulphur.

Tincture of larch-bark is, we suppose, introduced as a remedy in certain forms of bronchorrhœa; and a tincture of fresh orange-peel is probably offered as a more pleasant flavouring material than the old tinctura aurantii. The powder of areca-nut is introduced as a new vermifuge; and the list closes with acetic ether, nitrate of ammonia for the preparation of nitrous oxide gas, nitrite of amyl, a solution of guttapercha used in preparing the mustard-paper, and an extractum glycyrrhizæ liquidum, none of which require any detailed notice. It will be seen from the above enumeration that no great amount of time or labour will be needed to master the contents of the new Appendix. Though the additions to our already copious Pharmacopœia are not numerous, they have been evidently selected with great care, and we question whether any of them will be found superfluous. In this, as in many other respects, the profession is deeply indebted to Dr. Quain, who has been mainly concerned in the preparation of this Appendix to the Pharmacopœia.

In concluding this notice we have to record our obligation to Mr. Martindale, of New Cavendish-street, for allowing us to inspect some of the new preparations, and for affording us some valuable information connected with them.

THE ATTENDANCE OF MEDICAL OFFICERS AT HOSPITALS.

For the proper carrying out of the out-patient arrangements of our large London hospitals, as at present constituted, where a number of persons have to be seen and prescribed for in a comparatively limited time, it is essential that there should be punctuality on the part of all concerned. On the side of the patients provision is usually made that they shall be in the waiting-rooms before a fixed hour, after which admittance is absolutely denied to late comers. The rule, however, with regard to the medical and surgical officers is ordinarily less severe. A nominal hour of attendance is appointed, and they are required to inscribe in a book the time at which they enter, and sometimes at which they leave, the hospital; but a rigorous attention to the rule is not generally insisted on, and no notice is taken of slight irregularities, but only of flagrant breaches of punctuality. Of the members

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of a hospital staff, some are probably always pretty regular, while others are noted for being behind their time, and this is often especially the case with those who are in large private practice, and so detained at home or in visiting until a late hour of the morning. Two classes of individuals suffer for their unpunctuality—the patients and (if a medical school) the students. Of course, if a medical officer arrives late, the patients (who have most of them in any case to wait a long time) are still further delayed, and the delay becomes very serious if they come from a distance or are in any occupation which does not admit of their protracted absence; moreover, they are more liable to have their cases hastily examined when the officer is late, in order that the latter may not keep about the dispenser and other officials connected with the out-patient department.

The inconvenience—not to speak of the bad example—to students of their clinical teachers' irregularity is very great, and on this point we are sure that many who remember their own student-days will agree with us. Hours of valuable time which might have been usefully employed in other ways are wasted in loitering at the hospital doors and waiting for the unpunctual officer; and diligent students are thus deterred from following the teaching of particular men, because it is so uncertain when they will come, and sometimes, in the case of in-patient officers, whether they will come at all. The London schools contrast very unfavourably in this respect with several foreign schools which we could mention, where men of the greatest experience and largest *clientèle* manage somehow or other to attend to their hospital duties with an exemplariness rarely seen in England. Almost the only excuse which out-patient officers can bring forward with good reason for any want of punctuality is that the hour of one o'clock, which is usually fixed for their visit, is too early. To reach the hospital by one necessitates an interruption of work soon after twelve, not to speak of a possible loss of patients from leaving home so soon, while the hospital is reached just as the students are leaving lecture and going away to dinner, so that part of the visit is lost to them for teaching purposes. It would be to many men a great boon if half-past one were fixed instead of one o'clock for their visit, and it would then be much easier for the medical officers to be punctual than at present. Considering how many persons suffer from neglect of punctuality on the part of hospital officers, there can be no doubt that the latter should do their utmost to fulfil their engagements as accurately as possible; and, on the other hand, committees, remembering the gratuitous services which (in the majority of hospitals) their officers render, should leave them unfettered as to the time of their arrival within certain limits.

THE WEEK.

TOPICS OF THE DAY.

The facts brought to light by the Government inspection of Bishop Auckland, conducted by Dr. Thorne, are startling and alarming. The high death-rate and constant prevalence of infectious diseases in the Auckland district need not excite wonder when we find that in some parts of it there are no local authorities except the guardians. Sanitary measures are consequently much neglected. The law must be compulsory as to the establishment of local boards of health, or no thoroughly sanitary condition of our rural villages will ever be attained. Dr. Thorne thus describes a portion of the district—namely, West Auckland: "that for the size of it he had never seen a place beat it for sanitary evils." Such a state of things is a reproach to the county of Durham. The facts and figures disclosed in the report fully bear out the correctness of Dr. Thorne's description.

In consequence of the imperfect manner in which some analyses of bread and other articles have been performed, subsequent analyses having shown these imperfections, the master bakers of Deptford, acting in self-defence, have made a request to the Greenwich District Board of Works that in all purchases of bread made for the purpose of analysis the inspectors should be allowed to leave a portion of such bread under seal with the vendors, so as to permit of an independent analysis being made. This, which we think a reasonable request after what has occurred, the Board has refused. It is certain from controversies that have taken place in the newspapers between "experts," that mistakes, even by them, are occasionally made, and an injustice inflicted upon innocent persons. It must be remembered that the analysis of food is very frequently a difficult proceeding; and yet analyses of this kind are not unfrequently entrusted to mere tyros. Time will itself remedy the evil to a great extent; but we contend that in the present state of the question it should be in the power of the "offender" to procure an independent examination of the suspected article if he desired it. Of course he would bear the expense.

We are glad to observe that, in a supplement to the *London Gazette* issued on Monday last, the excellent and valuable services rendered by Staff-Surgeon Fegan, R.N., are brought to the notice of Commodore Hewett by Major-General Wolseley, in a despatch written by Surgeon-Major Mackinnon, Principal Medical Officer.

Lord Derby characterised the war in Ashantee as a "doctors' and engineers' war." The *Times*, in commenting on this, speaks in high terms of the wisdom with which both doctors and engineers advised the General in command. No doubt Sir Garnet had to act mainly on his own judgment, but the information on which he acted must have been mainly supplied to him by his medical staff, "and (says the *Times*) it is to them the chief credit must be assigned of having successfully encountered the most formidable of all our enemies—the climate." It is to the honour both of the Commander-in-Chief and the head of the Naval Brigade that they have in their despatches handsomely acknowledged not only the skill, but on several occasions the personal intrepidity and coolness, of their medical officers in action. We hope to see such valuable services acknowledged in the *Gazette* by the conferring of honours upon men who have so justly earned them.

Archbishop Manning on Monday night, at Exeter Hall, on the subject of intemperance, remarked that if the enormous traffic in alcohol continued to extend itself year after year unchecked, the day would come when Parliament would be unable to cope with it, and its influence over the people of this country would then be so strong that by it the votes of electors and elected would be determined. He looked upon this as one of the gravest signs of the present day.

The College of Physicians are about to present a memorial to the Prime Minister on the overcrowded and unwholesome state of the dwellings of the poor.

The Bill to amend the law relating to infanticide, brought into the House of Commons on Monday, provides, *inter alia*, that a mother wounding a child during birth or immediately afterwards shall be liable to penal servitude, and that proof of the child being completely born is to be unnecessary.

Many of our readers who have been around the London hospitals during the past winter may have met with a pleasant, intelligent Frenchman, very diligent in his notes on Mr. Spencer Wells's operations at the Samaritan, Sir Henry Thompson's at University College, Dr. Morell-Mackenzie's in Golden-square, and the eye practice at Moorfields and St. Thomas's; and they will be sorry to hear that this gentleman, Dr. Muron, sub-editor of the *Gazette Médicale* of Paris, died suddenly soon after his return from London to Paris, of an anthrax deeply seated in

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the nasal fossæ. Dr. Muron made many friends in London, who join sincerely with his Parisian brethren in mourning his early death.

It has been decided, on the proposition of a local medical man, that the salary of the Medical Officer of Health for Cambridge shall be £250 per annum instead of £500, as originally proposed. It is to be regretted that a member of the profession should advocate fixing the salary at a sum inadequate to secure the entire services of a good man to discharge the onerous duties of health officer for such an important district as that of Cambridge, whose defective sanitary state has been the subject of so much comment.

Dr. Gervis has been appointed Physician to the newly constituted Southern Division of the Royal Maternity Charity.

THE NAVAL DESPATCHES ON THE GOLD COAST OPERATIONS.

"MENTIONED in despatches" is a distinction very justly sought after by officers of every grade and service; and, although somewhat behind the military reports, we are now made acquainted, in a despatch lately published, with the opinions of the Senior Naval Officer on the Gold Coast upon the officers under his command. It is gratifying to find from this document that the naval medical officers have been as assiduous and self-sacrificing in their exertions for the comfort of the sick and wounded as their brethren of the sister service. Thus, in a special report, Commodore Hewett bears testimony to their zeal and attention as follows:—

"In my letter of March 3 I abstained from touching upon the individual services of the medical officers of the squadron, as I felt that they demanded my special attention, and that I could not have done justice to them excepting in a special despatch. I have now the honour to request that you will acquaint the Lords Commissioners of the Admiralty that the care and attention paid to the wants of the sick and wounded, as they came down to the front, by the staff surgeons in charge of the hospital arrangements at Cape Coast—viz., Dr. Ahmuty Irwin, of the *Simoom*, and afterwards in the *Himalaya;* Dr. John Watt Reid, R.N., of the Transport No. 15 *Nebraska;* and Dr. William J. Hamilton, of the *Tamar*, for a short period during the absence of the *Simoom* and *Himalaya*, and before the arrival of the *Nebraska*,—could not have been surpassed. Referring to the enclosed letter addressed to me by Major-General Sir Garnet Wolseley, forwarding a copy of a report made to him by Surgeon-Major W. A. Mackinnon, the Army Principal Medical Officer, their Lordships' attention will be attracted by the excellent services of Dr. Henry Fegan, Staff Surgeon, second class, of this ship, who was in medical charge of the Naval Brigade, and Dr. James W. Fisher (late *Decoy*), attached to his staff. I cannot say more in praise of these officers' services than that I fully concur in the opinions expressed by the Major-General and Dr. Mackinnon. Dr. Fegan's kindness and unremitting attention to the sick have, on many occasions during the period he has served under my command, come under my special notice, and in my letter of the 7th January, 1874, I referred to this officer's conspicuous conduct in the field. Dr. Fegan has represented to me that Surgeon James W. Fisher, M.D., identified himself from first to last most thoroughly with his duties, much to his satisfaction; while attached to the left wing at the battle of Amoaful, this officer had to endure heavy fire for five hours. Surgeon James McCarthy, M.D., was selected for the onerous and highly responsible duty of taking charge of the naval hospital established at Prahsu, where the sick and wounded accumulated from the front. While in the route of march he shared the duties of the Brigade, and night and day this officer performed his duty in a manner which excited the esteem of all. Surgeon H. T. Cox was selected from the squadron for charge of the first landing party, and subsequently joined the Brigade. He was detailed to convoy the sick and wounded along the line of march, and he performed his duty with such care and regard for their comfort as to merit the special approbation of his superiors. The services of Dr. Walter Reid, attached to the Transport Service, in his capacity as health officer, deserve the favourable consideration of their Lordships. His duties have been very important, he having had to board all ships to inspect their bills of health; and to his careful inspection of the state of the health of those on board may in a great measure be attributed the happy circumstance of there having been no epidemic disease introduced among the Europeans stationed at Cape Coast from the many infected ports to leeward of it."

The enclosures referred to by Commodore Hewett, from the Major-General and Dr. Mackinnon, also speak in high terms of Staff Surgeon Fegan's services, which Sir Garnet reports to have come under his own personal observation; and we trust that when the rewards and honours for the expedition are distributed, both naval and military medical officers will find that their services have been duly appreciated by the country.

The *Victor Emmanuel* is ordered home direct, and the last advices report her to have left St. Vincent *en route* for Madeira. Her sick and wounded are doing very well, but the death is reported of Major Baird, 42nd Highlanders, who died the day he was transferred to her at Cape Coast Castle. This unfortunate officer was wounded in three places—two of them slight and one severe,—and death resulted from aneurism. The *Thames* invalid transport has also left Madeira for England, with all on board convalescent.

We may fairly congratulate ourselves upon having terminated this war without having placed ourselves under the slightest obligation to the Portuguese Government. The request for permission to establish a sanatorium at Madeira was met with polite evasions calculated to stave off a refusal until such time as the necessity for organising it had passed away; but it would have been less diplomatic and more straightforward had the Portuguese authorities frankly urged the disinclination of the residents at Madeira to incur the risk of disease as a reason for declining to accede to such request, instead of having recourse to shuffling excuses.

The anxiously expected *Sarmatian* has at length arrived, her voyage having been purposely lengthened to give the gallant 42nd Foot the benefit of the sea breezes; and before these lines are printed no doubt the *Himalaya* will have arrived with the 2nd Battalion Rifle Brigade, the last of the expeditionary regiments.

THE DUTCH EXPEDITION TO ATCHEEN.

WHILE we have been fortunate enough to get our little war in Africa over successfully, the Dutch are still persevering in theirs with the Sultan of Atcheen and his allies with more or less success. The difficulties they have encountered have been enormous, and their resources, especially as regards medical work, have been taxed to the uttermost in the face of cholera and other forms of disease. Our readers will be pleased to learn that the two Englishmen who took service with the Dutch—Drs. Mayo and Galton—have earned golden opinions for the diligence and success with which they have pursued their work in the front. We also see that their hospital was attacked by the Atchinese, and their patients murdered in their beds, during a sudden attack, they themselves being obliged to take refuge in the general's tent. Another Englishman is mentioned, whose name is less familiar to us—Dr. Lightfoot,—as in charge of the sick and wounded at Padang; he, too, has done well. It is satisfactory to see how well the credit of English medicine has been sustained by these adventurous gentlemen.

MEDICAL APPRAISEMENTS.

THE *Staffordshire Advertiser* contains in its issue for March 21 an advertisement for a medical officer of the Rural Sanitary Authority of Newcastle-under-Lyme, who is to be munificently rewarded by a salary of £50 per annum, without stoppages, and may be dismissed "at a month's warning." The area over which his services are to be extended comprises seven rural parishes, straggling in position, and containing 18,360 acres, or rather more than twenty-seven square miles, and a population of 5733. Counting heads, therefore, he will

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receive nearly twopence a-piece yearly, and, if active in the discharge of his duties, may very soon traverse a space equal to the circumference of the globe. This situation therefore recommends itself to an active young man, who, could he prevail on the proper authorities, might more than double his salary by getting elected either as sexton or beadle to one or other of the parishes he serves. Indeed, a young man of ambition could not do otherwise if he wishes to secure an income conservative of his status. For as by the progressive reform of society those antique laws of precedence fixed by a benighted aristocracy in past ages must be exploded as relics of tyranny, and be trampled under foot by the enlightened working man of this glorious era, and in their place be substituted a valuation of men by the earnings they get, and the shortness of time they need work to get them, therefore the sanitary medical officer in question must, as recommended, and in spite of the true laws of economy, become a pluralist, if he is to hold his own in the rear of the collier and keep somewhat ahead of the (at present) down-trodden Hodge. Doubtless the "Rural Sanitary Authority" will point out to him the responsibility of his duties, the propriety of passive obedience to its judgments and commands, and, in order to arouse his scientific ardour and benevolence, explain to him how excellent his appointment is, how fruitful it may be made in scientific results, how satisfied he should be in having such an opportunity of improving his professional knowledge, of doing good to his fellow-creatures, of opposing the onset of disease, arresting its course, and diagnosing the stinks and nuisances in the Union contributory to its origin. The vista of usefulness, indeed, opens out so widely that the applicant for the post may be imagined to repel from his mind all sordid views of payment, and, like some we hear of, to volunteer his services gratuitously to the applauding "Authority." To speak seriously, when such philanthropic enthusiasts are to be met with in the profession, ready to work for nothing, or for a so-called honorarium—a reward, by the way, carrying no honour to them,—and when competing medical men are to be found currying favour with parochial magnates, with most of whom they could not associate as friends or equals, to get appointments of less value than the place of an upper servant, it is no marvel to find our profession appraised at the rate indicated in the advertisement referred to.

PROFESSOR GAIRDNER ON INFANT MORTALITY.

PROFESSOR GAIRDNER, of Glasgow, has written a long letter to the *Glasgow Herald* of March 19 on the subject of infant mortality. Having pointed out that "among the rich and still more among the poor it is, on the great scale, impossible, without danger, to replace mother's milk by any other kind of milk or of nourishment," Dr. Gairdner arrives at the following highly important conclusion:—"It follows that the safe and wholesome feeding of the infants of a large community depends absolutely upon preserving for its proper use the whole stock of available sustenance provided by nature in connexion with the whole number of births in that population." The writer goes on to say that "the *supply* is here within certain limits, which can be readily understood, meted out by a natural law in strict proportion to the *demand*, and whoever restricts the supply by withdrawing unnecessarily even one of the sources provided, is responsible to that extent for starving the demand in some other quarter. The wealthy mother who declines nursing does not escape responsibility for the evil consequences of her act;" for "she is wantonly diminishing the general stock of a food which no money can procure for the children of the poor." If this habit takes root in a wealthy and luxurious population, "the infantile death-rate will inevitably rise out of all proportion to the general death-rate." The writer points out how the truth of this is illustrated in Paris and the West-end of London, and how the disastrous effect of the system, should it "unhappily extend throughout the structure of modern society," will "sap the very foundation of social prosperity," and work out the decline of modern, as of the greatest ancient nations, by leading to a "want of men." For the condition of the neglected infants of the working classes, Dr. Gairdner proposes a remedy: "By well-regulated and carefully administered advice and assistance to their mothers, by extension of the system of day nurseries, by a well-organised woman's mission, surely," he says, "the educated women of Glasgow might do something to diminish infant mortality and preserve coming generations from destruction." We trust that Dr. Gairdner's powerful appeal will be responded to with the readiness and liberality which it deserves.

THE CONJOINT EXAMINING SCHEME FOR IRELAND.

As we briefly announced last week, the Royal College of Surgeons, Ireland, has passed a vote hostile to this undertaking. We should remember, however, that the Council of the College is still favourably disposed to the Conjoint Examining Scheme, and that the adverse opinion elicited from the Fellows at large at their meeting on Thursday week can scarcely take effect until next June, when the Council will cease to hold office. Still, in the meantime, the Council may be decidedly influenced in their bearing towards the scheme by the very marked expression of opinion at the meeting to which we have referred, and at which between fifty and sixty Fellows were present. How the College can altogether withdraw from the scheme, in a manner consistent with its honour, is not easy to see. Surely the University of Dublin, the College of Physicians, and the Apothecaries' Hall, will have good reason to feel aggrieved if the College of Surgeons suddenly withdraws from the arrangement entered into with those bodies months ago—an arrangement which resulted in the appointment of a Committee of Reference, and the compilation of an elaborate and most valuable report by that Committee. In any case, we trust that the College of Surgeons will not allow any selfish or personal motives connected with its school to stand in the way of accomplishing a reform which may determine the very existence of the great Irish School of Medicine and Surgery in the future.

THE INFLUENCE OF POSTURE ON PRESYSTOLIC CARDIAC MURMURS.

IN the December number of the *Practitioner*, Dr. Gowers gives an account of four cases of mitral stenosis accompanied with a presystolic apex-murmur in patients ranging from seventeen to forty-five years of age, in whom the murmur was only audible while they were in a recumbent position, and disappeared on their assuming the erect posture. In three of the cases the murmur was accompanied by a distinct thrill. Three of the patients had previously had some form of rheumatism. In the fourth, a girl of seventeen, who had had slight chorea for two months previously, a phenomenon was observed, which is probably unique—namely, a reversal of the usual effect of posture on the frequency of the pulse. While she was lying down the pulse was 100, but after standing up for about ten seconds its frequency fell to 84 or 80 per minute, and remained so as long as she stood up. If she gradually changed from the vertical to the horizontal position, the murmur became audible when the angle of about forty-five degrees was reached, and the pulse gradually became more frequent at the same time, but there was no other irregularity in its rhythm. Dr. Gowers is inclined to ascribe the disappearance of "presystolic" murmurs in these cases to an alteration in the shape of the auriculo-ventricular orifice in the two positions. Thus, the orifice might, when the patient lies down, and the heart comes to rest, as it must do, on the organs behind or beside it, "be so changed in the passive state of the ventricle as to lessen its already diminished area, or to bring

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its roughened surface into further contact with the blood-current." Dr. Gowers suggests that the term "pretonal" instead of "presystolic" would better represent the relation of these mitral murmurs to the sounds of the heart.

A WARNING.

In a letter to the *Times*, Dr. George Harley communicates a warning to West-end practitioners. He says:—

"At lunch-time, when the servant was laying the cloth, a 'lady' called and asked to see me. Being engaged at the time, she was shown into the dining-room. The servant proceeded downstairs to get something, and on returning in less than five minutes he met the 'lady' in the hall, who in the mildest tone of voice and the most polite manner informed him that, as she had a call to make in Cavendish-square, and I was engaged, she would at once go there, and return in a few minutes. She went, —and with her, alas! went more than £20 worth of my silver. I have just learnt that the same trick was a few months ago successfully played in this street, and within a few doors of this house. I hope by giving the following description of the thief that a check may be put to what must be to her a very profitable game:—She is rather under middle height, good-looking, about thirty-five years of age, with a lady's voice and manners. She wore a dark sealskin jacket and a quilted black skirt; had on a fashionable felt hat with a black veil thrown over it."

Many like depredations have recently been committed by the same or some similar practitioner.

APPOINTMENTS AT THE ARMY MEDICAL DEPARTMENT, WHITEHALL-YARD.

On the forthcoming retirement of Sir Galbraith Logan, K.C.B., from the post of Director-General of the Army Medical Department, it is rumoured that Deputy Surgeon-General W. Rutherford, M.D., C.B., the present head of the Medical Branch at Whitehall-yard, will succeed Sir William Muir, K.C.B., as head of the Sanitary Branch, the post which he thus vacates being filled by Deputy Surgeon-General W. Munro, M.D., C.B., at present doing duty as Principal Medical Officer of the Western District.

HEALTH OF DUBLIN.

Of 178 deaths registered in the week ending Saturday, March 14, no fewer than 47, or 26·4 per cent., were ascribed to zymotic diseases. Of the 47 zymotic deaths, 23 were caused by scarlatina, 4 by diphtheria, 3 by measles, 2 by hooping-cough, 2 by croup, 1 by erysipelas, 1 by diarrhœa, and 11 by fever (typhus 5, enteric 4, and simple continued 2). The death-rate of the week represented an annual mortality of 29 per 1000 of the population living. Twenty-two of the zymotic deaths were of children under five years of age, and 36 were of children under fifteen years of age.

VIOLENT DEATH OF A MEDICAL MAN.

We are sorry to learn that Dr. Parks, of Ullid and Kilmacow, Kilkenny, was found dead in the street of the latter village on the morning of the 22nd inst., with a severe wound of the scalp. The unfortunate gentleman had probably been thrown from his gig while on his way home from paying a night visit at some distance. He leaves a wife and a large family.

VACANCY AT KING'S COLLEGE HOSPITAL.

By the resignation of Dr. Kelly, due to his appointment as Medical Officer of Health for part of Sussex, a vacancy for an Assistant-Physician is made at King's College Hospital. In many ways this resignation is to be regretted, but chiefly in the interests of the Hospital itself, where Dr. Kelly was a most valuable and indefatigable teacher and investigator. On the other hand, the local authorities are to be congratulated on having secured the services of one so likely to prove a most efficient officer of health. Various gentlemen have been mentioned as probable candidates for the vacant post of Assistant-Physician, especially teachers in King's College who are not also attached to the staff of the Hospital. It has been given out that Dr. Rutherford is not a candidate for the post, but we have the best authority for contradicting this statement.

MEDICAL SOCIETY OF LONDON.

At the meeting of this Society on March 16, Victor de Mérie, F.R.C.S., President, in the chair, the thanks of the Society were warmly accorded to Dr. Habershon, the retiring President, and also to the officers and Council. The President, Mr. de Méric, said, on taking the chair, that while praising the energy that had been displayed by his predecessor, Dr. Habershon, and by Mr. Thomas Bryant, who was chiefly instrumental in taking these premises and enabling the Society to meet in such a handsome and comfortable room, he still would call the attention of, especially the younger, Fellows to the amalgamation of the Medical Society with the Westminster Medical Society, which took place twenty-two years ago, and which resulted in the formation of the present influential and powerful body, over which he had now the honour of presiding. He trusted he should have the assistance of the Fellows in keeping up the tone and interest of the meetings, and would remark that this Society had been characterised by the freedom of its discussions, which character he wished to maintain. He did not ask for any great eloquence from the speakers, but he would wish the subjects brought forward to be fully and carefully discussed in their practical bearings. On the Continent he had noticed a custom in the societies there of bringing forward patients suffering from obscure diseases or injuries, and in the way of a general consultation obtaining opinions from the members. This custom had been productive of much good, and he would very much like to see it followed in the Medical Society of London.

THE HARVEIAN SOCIETY.

A few weeks since, a requisition, signed by nine members of the Society, was handed to the President (Mr. James R. Lane), begging him to call an extraordinary meeting, for the purpose of considering an accusation against one of the members—Mr. Harry Lobb. It appears that certain advertisements respecting his books on "Curative Electricity" and "Hypogastria in the Male," which had frequently appeared in the *Times* and other daily papers, had excited the indignation of these gentlemen, who resolved to propose Mr. Lobb's expulsion from the Society, on the ground that he had been guilty of an offence against the established usages of the profession. However, at the special meeting called to consider the subject, the requisite majority of votes was not recorded for the expulsion to be effected, whereupon the President and several other officers and members resigned. A second special meeting being summoned to discuss the critical condition of the Society, Mr. Harry Lobb himself severed the Gordian knot by tendering his resignation of the membership. Votes were then passed requesting the other members who had resigned to withdraw their resignations, and to resume their official positions in the Society; and we learn that all the seceders have since signified their intention of doing so. Thus terminates happily a dilemma which threatened to break up this long-established, useful, and successful Society.

POOR-LAW MEDICAL OFFICERS' ASSOCIATION.

The annual meeting for the election of officers and passing the balance-sheet will be held on Wednesday, April 8 next, to commence at 8 p.m. precisely, at the rooms of the Century Club, 6, Pall-mall-place (opposite the Oxford and Cambridge Club, Pall-mall), Dr. J. Lush, M.P., the President of the Association, in the chair. On this occasion matters of considerable

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importance, affecting the status and remuneration of the Service, will come before the meeting for discussion. The Council consider that the present moment is a critical one for poor-law medical officers, as the Premier has committed himself to the policy of sanitary reform, and many of his immediate colleagues in the Government have pledged themselves to deal with the question of local taxation, with the view to its more equitable incidence. The importance of this, as affecting the interests of the poor-law medical officers, must be evident; the Council therefore trust that there may be a good attendance.

LETTER FROM THE GOLD COAST.

(*From our Special Correspondent.*)

SIERRA LEONE, WEST COAST OF AFRICA, March 6.

H.M.S. Hospital-ship *Victor Emmanuel* left Cape Coast Castle on the evening of February 26, for Sierra Leone and St. Vincent, Cape de Verde Islands, *en route* for England. Her arrival at Cape Coast was singularly opportune, being on the same day that the first division of the first European regiment (the 2nd Battalion Rifle Brigade) landed, and her departure was equally well-timed, as the last corps (the 42nd Royal Highlanders) had embarked on board the *Sarmatian* for England the day before, and nothing of the expedition remained behind, save his Excellency the Commander-in-Chief and staff, the two West Indian Regiments, and a few details, the waifs and strays of the force.

That the hospital-ship fulfilled her mission right nobly, public opinion out here is unanimous; and that her staff were not idle will appear from a survey of the subjoined statement showing the numbers respectively of sick and wounded officers and men treated on board, and how these were disposed of:—

1. The total number of officers admitted to H.M. Hospital-ship *Victor Emmanuel* at Cape Coast Castle from January 1 to February 26, 1874, inclusive, was—Fevers, 15; dysentery, 13; diarrhœa, 1; gunshot wounds, 7; other complaints, 19—total 55.

2. The number of men admitted to H.M. Hospital-ship *Victor Emmanuel* at Cape Coast Castle from January 1 to February 26, 1874, inclusive, was—Fevers, 321; dysentery, 62; diarrhœa, 22; gunshot wounds, 51; other complaints, 109—total 565.

3. The officers admitted (55) to the hospital-ship within the above period were disposed of thus:—Discharged to duty, 16; transferred to other ships (11 of these were afterwards invalided), 18; invalided home, 23; died, 2; remaining, 6.

4. The following was the mode of disposal of men admitted (565) within the above period:—Discharged to duty, 104; transferred to other ships, 111; discharged to be readmitted for another disease, 5; died, 3; invalided home, 165; remaining, 167.

When the character of the diseases of this coast, its exhausting climate, and the extreme youth of a large proportion of the men are taken into account, the death-rate will appear a very moderate one, and it will contrast very favourably with that recorded by Bogle and other writers on the diseases of Western Africa under the heroic treatment of former days. Had venesection *ad effectum*, repeated from time to time, with powerful cathartics and mercury to ptyalism, constituted our line of therapeutics, doubtless the ratio of mortality to cases treated would have more closely approximated that which obtained forty years ago.

The number of men discharged to duty naturally strikes one as being small, in comparison with the admissions. In explanation of this, two points may be adduced for consideration—viz.: 1st, Tedious convalescence is at all times characteristic of the diseases of this coast, as it is, indeed, of malarious affections of Europeans everywhere in tropical climates; 2nd, The nature of a soldier's duties ashore on active service during the expedition now ended was such that delicate or imperfectly convalescent men were worse than useless. Hence it became necessary to retain many on board ship, and to invalid a still larger number of anæmic subjects; few of whom, it is confidently hoped, will be lost to the service, and a fair sprinkling of whom, there was reason to apprehend, would be fit to join the depôt companies of their respective corps on arriving in England.

Of the 565 cases admitted, the Royal Engineers furnished 21; Royal Artillery, 11; 2nd Battalion 23rd Royal Welsh Fusiliers, 165; 42nd Highlanders, 145—32 of these being wounds; 2nd Battalion Rifle Brigade, 159; Army Service Corps, 14; Army Hospital Corps, 37; and details of various kinds the balance. In proportion to numerical strength, the Royal Engineers and Departmental Corps contributed an undue number, and the same remark applies to invaliding. This was to be expected, as the men of the Engineers and Army Service Corps had hard work to bear and much exposure to the sun, while the orderlies of the Army Hospital Corps had more than their fair share of arduous and irksome duties.

Of the three European corps, the 2nd Battalion 23rd had the largest sick-list throughout, and also the greatest amount of invaliding—viz., 51 from this ship, as compared with 35 of the 42nd and 46 of the Rifle Brigade; and, in addition, there were 120 of the Fusiliers invalided from St. Vincent, Cape de Verde, none of the other corps being invalided from that place. Of the 51 wounded received on board the hospital-ship, 3 belonged to the Royal Engineers, 3 to the 2nd Battalion 23rd, 32 to the Highlanders, 12 to the Rifles, and 1 to the Royal Marine Artillery. Of wounds of head there were 2; of face, 5; of neck, 5; of chest, 2; of back and spine, 2; of perineum and generative organs, 1; of upper extremity, 22; of lower extremity, 12.

During the last fortnight of our stay at Cape Coast Castle a large number of admissions to the hospital-ship took place, and before our departure the various hospitals on shore sent all their European sick on board. Many of these were serious cases, more especially those of dysentery; most of the latter being in a very prostrate condition from the conjoined influence of a most depressing disease and of the miserable journey of several days down country.

Of the 167 on board at the time of our departure, 70 were cases of remittent fever, 40 of dysentery, 40 of gunshot wounds, and the rest of other diseases, the entire number being *bonâ fide* hospital cases, requiring careful nursing and treatment. Another few weeks at Cape Coast, and our army, composed of men in the prime of life, and fresh from England, would have literally rotted away; the Walcheren expedition would have been nothing to it. And we have all great cause for gratitude to Providence, and, under Providence, to our gallant chief, that the Ashantee war ended when and how it did.

Two officers and five men died between Cape Coast Castle and Sierra Leone, and it is to be feared that not a few poor fellows will succumb before we reach England.

The mortality amongst the officers during this short expedition has been very great—twenty-four in all up to the present date; and there are probably more to follow. The amount of invaliding amongst the officers has been enormous, and I believe I am correct in saying entirely without precedent.

The very heavy work that has fallen to my lot during the past month must be my excuse for not sending you the reports of cases that I promised, and which I hope to forward by an early mail.

THE WEBB FUND.

THE following contributions have been received by Mr. Augustus Churchill, the Treasurer, to the 26th inst.:—

	£	s.	d.
Rev. J. Russell Stock ...	3	3	0
Dr. Wheatley, Oporto ...	5	0	0
Mr. C. Bleeck	2	2	0
Mr. Onley Savill-Onley ...	1	1	0
Mr. George Meek	2	0	0
Dr. Cahill	2	2	0
Captain Poland, R.N. ...	2	2	0
Mr. C. C. Ferard	10	0	0
Mr. R. C. Griffith	5	0	0
Dr. Beddoe	1	1	0
Dr. Dyce Duckworth ..	1	1	0
Messrs. Yarde and Son ...	5	5	0
Dr. D. Fraser	2	2	0
Dr. Murchison	4	4	0
Sir H. J. S. Ibbetson, Bart.	10	0	0
Mr. W. H. Domville ...	1	1	0
Dr. Clifford Allbutt ...	1	1	0
Messrs. Spalding & Hodge	10	10	0
A Friend of the Family ...	2	2	0
Dr. Willoughby Arding ...	0	10	6
Dr. Cookle	3	3	0
Rev. F. Hildyard	5	5	0
Dr. A. S. Taylor	3	0	0
Dr. Andrew Clark	10	10	0
Mr. John Ferard	2	2	0
Mr. W. H. Cochran ...	5	5	0
Dr. J. Russell, Birmingham	2	2	0
R. L. F.	100	0	0
Mrs. Holmes	100	0	0
Mr. O. C. Jackson	26	5	0
Dr. E. T. Watkins... ...	1	1	0
	330	0	6
Amount previously acknowledged ...	1478	14	0
Total	£1808	14	6

*** In the list of subscriptions to the "Webb Fund" in our number for February 14, *for* "Dr. Jeffson" *read* Dr. Jephson, and *for* "Mr. E. H. Bradley" *read* Rev. R. H. A. Bradley.

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ABSTRACT OF

THE CROONIAN LECTURES.

DELIVERED AT THE ROYAL COLLEGE OF PHYSICIANS.

By CHARLES MURCHISON, M.D., F.R.C.P., F.R.S., LL.D.,
Physician to St. Thomas's Hospital.

ON FUNCTIONAL DISEASES OF THE LIVER.

LECTURE III.

THE principal *Derangements of the Nervous System* referable to functional disease of the liver are aching pains in the limbs, pain in the shoulder, neuralgia, cramps, headache and megrim, vertigo, convulsions, noises in the ears, sleeplessness, depression of spirits, irritability, and the typhoid state. Of these, headache and megrim, vertigo, and sleeplessness were discussed in the last lecture; and of those that remain, only the last will be considered at length. It is well known that the symptoms, described collectively as the typhoid state, are apt to supervene in long-standing cases of disease of the liver, whether accompanied by jaundice or not. The condition is generally attributed to the presence of bile in the blood, but this we have already proved to be incorrect; we have seen that the presence of bile in the blood, even to saturation, may be unattended with any serious symptom. And, as has just been remarked, the typhoid symptoms may supervene where no jaundice is present. We attribute them, therefore, to the failure of the disintegrating function of the liver. We know that under these circumstances the products must accumulate in the blood, and we find accordingly that the symptoms developed are identical with those observed in many febrile diseases, and in chronic Bright's disease. They are seen especially in acute atrophy of the liver.

Derangements of the Organs of Circulation.—Palpitations and flutterings of the heart are frequently recognised as due to the liver. Dr. Murchison remarked that they are more often referable to functional disease of the liver than to distension of the stomach, as some persons are inclined to believe. Exaggerated pulsation of the arteries is a symptom observed especially in the epigastrium. Dr. Baillie first directed attention to increased pulsation of the aorta in the epigastrium, as occurring in simple dyspepsia. The condition is now a familiar one, and one of its causes seems to be disordered blood, connected with derangement of the liver and gout. Soudamore and Garrod record such cases in gout. The undue pulsation is frequently removed by remedies directed to the liver. Irregularities of the pulse may be caused by morbid states of the blood connected with lithæmia, gout, or other hepatic disturbance. The symptom is commonly referred to irritation of the pneumogastrics supplying the stomach, but Dr. Murchison believes that it is due to a toxic substance in the blood from derangement of the liver. What this may be we do not know; it may be unchanged bile-acids, but it is more probably some other product of albumen. Patients suffering from this symptom are often relieved by blue-pill; they are worst when idle, and feel better if actively at work. Such irregularity of pulse may last for years; Dr. Murchison has seen a gentleman of eighty whose pulse had been irregular for fifty years. It may after all disappear:—thus, Dr. Murchison has heard of a case where a gentleman aged forty-two, a high liver, and subject to hepatic derangement, had intermittent pulse and fluttering of the heart for three years, at the end of which time the symptoms disappeared suddenly after an attack of urticaria, without returning for a period of twenty years. Angina pectoris is due to many causes, and one of these is lithæmia. Dr. Butter described this condition many years ago under the name of "diaphragmatic gout," and Trousseau has pointed out that it is connected with the gouty diathesis in many cases. In a patient of Dr. Murchison's attacks of angina came on suddenly during the night, and similar attacks had occurred some time previously; the patient's brother was gouty. Anæmia and feeble circulation are other derangements which may follow functional disease of the liver. In this connexion it may be mentioned that there are certain constitutional diseases connected with disease of the liver. When a blood-poison enters the system, the liver is one of the first organs to suffer; but there are certain blood-poisons which may be generated in the liver, as, for example, gout. Acute atrophy of the liver is a blood-disease, but it is the liver which primarily fails. Probably the same happens in erysipelas; and Dr. Murchison thinks that the excess of fibrine in the blood in acute rheumatism may be due to its imperfect destruction in the liver. It seems not improbable that many so-called constitutional diseases are generated in the liver. Such diseases (gout, for example) are not themselves hereditary, but the tendency to them is. In gout, cancer, and tubercle, this tendency, which exists at first in the ovum, is located afterwards in the blood-forming and blood-destroying organs, and therefore in the liver. It is no argument against this view that primary cancer is not more common in the liver, any more than it would be an argument in gout.

The *Derangements of the Organs of Respiration* which may occur in functional diseases of the liver cannot be more than enumerated here. They are chiefly chronic catarrh of the fauces, chronic bronchitis, and spasmodic asthma.

The same remark applies to *Derangements of the Urinary Organs*—deposits in the urine, renal calculi, disease of the kidneys, and catarrh of the bladder. Several of these have, however, been already referred to.

Neither is there time for more than a simple enumeration of the *Abnormal Conditions of Skin* which may arise in the course of functional diseases of the liver. They are eczema, lepra, psoriasis, lichen, urticaria, boils and carbuncles, pigment-spots, xanthelasma, and pruritus.

We now come to consider the *Causes* of functional derangements of the liver, but the remarks will be restricted to the causes of abnormal disintegration only. Others would be out of place here. The conditions which induce lithæmia may be either primary, or secondary to other states of the body. Structural diseases of the liver, disorders of the stomach and bowels, and diseases of the heart and lungs may cause secondary derangements of the liver. Another cause of the same is pyrexia, as is seen more or less in all diseases attended with elevation of temperature. Unlike many of the other organs, the liver enlarges in fever; and after fever has passed off there is perhaps a tendency to hepatic derangement, as may be seen, for example, after typhus. Among the causes of primary derangement of the liver, errors in diet must be first considered. There is no doubt that the present mode of living tends to derange the liver. Most persons eat too much, and although fortunately a great part of this is not assimilated, but thrown out in the fæces, more enters the liver than can be sufficiently oxidised. It is therefore thrown out as such imperfectly oxidised products, or it accumulates in the system. The result is functional derangement of the liver. Fatty and saccharine substances are most apt to have this effect, and the carbon which they contain is either deposited in the form of fat, or takes so much oxygen in its excretion as to cause imperfect oxidation of the nitrogenous compounds. Alcohol in its various forms is especially apt to disagree. It may cause persistent congestion of the liver and functional derangement, and that although imbibed in very small quantities, if the person have a constitutional weakness in this respect. Wines often derange the liver when any one of their constituents taken separately would not. It is a fact that the injury varies directly as the admixture of alcohol and sugar. Wines containing sugar are accordingly known to disagree much more frequently than claret, hock, Moselle, and the simple spirits, such as whisky and gin. The hepatic symptoms due to errors in diet generally make their appearance in middle life. Young persons take more exercise, and in them development is still going on. Middle-aged persons, on the other hand, take less exercise as a rule, while they eat more, and development of the body has ceased.

A deficient supply of oxygen leads to primary derangement of the liver either by insufficient exercise in the open air or by imperfect ventilation. Persons who may have occasion to exchange an outdoor for an indoor occupation suffer in this way; and, on the other hand, the effect of a day's shooting or hunting is well known on persons who are suffering from a sedentary life. The exercise takes effect on the liver in two ways in these cases. In the first place, a sufficient supply of oxygen insures perfect oxidation, and prevents accumulations in the system; in the second place, it accelerates the flow of blood through the liver. Since the time of Haller we recognise the effect of the lungs on the hepatic circulation, but it is not so generally known that some thirty years ago Mr. Shaw, observing that the portal vein had to perform the functions of an artery, suggested that the weak force *a tergo* was assisted

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by the movements of the diaphragm. The experiments of M. Bernard have confirmed the truth of this view. Now, it is evident that in sedentary persons this force will considerably fail, and that exercise, on the other hand, will be attended with an increase of the function.

A high temperature favours certain functional diseases of the liver, especially those connected with sanguification. Derangements due to this cause will occur more frequently in tropical climates and in summer. These results are no doubt partly due to rarefaction of the air and a diminished supply of oxygen, but this is probably not the chief way in which they arise. It has been shown that high temperature causes degeneration of the liver cells, and it is possible that this may occur in the tropics.

Many facts show the effect of *nervous influences* in producing functional derangements of the liver. Diabetes is produced in this way. Prolonged mental anxiety and the like will interfere with the processes of bile-formation and sanguification, and induce lithæmia, and the result will be intensified if resort is had to indulgence in alcohol to drown grief. Even structural disease of the liver may arise in this way, as, for example, acute atrophy of the organ. Dr. Murchison believes that a connexion may sometimes be traced between emotional states and the extrusion of gall-stones; and even in cancer of the liver a history of mental depression is very frequently obtained.

Constitutional peculiarities may cause derangement of the functions of the liver. In virtue of these peculiarities, whether inherited or acquired, the livers of some persons are deranged more easily than those of others. Most persons have excess of liver, just as most have excess of lung, but others have too little, or in other words an unnatural weakness of the liver. This is seen, for example, in the subjects of gout, and is too often forgotten by the patient and by the doctor, who may very unwisely recommend alcohol. A person with such a constitutionally weak liver may defend his mode of living by comparing it with that of other people, forgetting that "what is one man's food is another man's poison."

Lastly, certain *poisons* have the effect of deranging the functions of the liver. Malarial poison acts in this way, and some cases of acute atrophy of the liver are caused by poisons being either taken into the system or engendered in the body. Phosphorus-poisoning produces an effect on the liver very similar to acute atrophy. And certain substances taken with food act in the same manner.

Structural disease of the liver will increase the readiness with which the various causes which have been discussed will induce functional derangements of the organs.

Treatment of Functional Derangements of the Liver.—Dr. Murchison said that the time was so short that he was compelled to limit his remarks on this head to the treatment chiefly of derangements due to abnormal disintegration and elimination. First, in regard to *diet*, much more is to be expected from the careful regulation of diet than from physic. We ought to remember that the hepatic derangement of lithæmia may exist for years, and that it may be cured by a careful attention to diet only, but if neglected may go on to gout. Over-eating, especially of rich food, must be interdicted, and above all saccharine and oleaginous cooked dishes. Even bread may have to be given up by the patient. Any idiosyncrasy must be ascertained. A simple diet of stale bread, fish, tea, etc., will be found best. The derangement may be due to overmuch both of nitrogenous and non-nitrogenous foods, and it may be necessary to order a minimum only of both kinds. The chief meal of the day may have to be taken in the morning. Diluents such as the mineral waters may prove useful. Even greater caution should be exercised in recommending alcoholic drinks, especially malt liquors; many patients under these circumstances do better without stimulants at all. Dr. Murchison did not wish to discuss the value of alcohol as a stimulant on this occasion, but he would say that alcoholic drinks, in amounts falling far short of affecting the brain, may undermine the health by their effect on the liver. The effect of sudden and complete abstinence is not so serious.

Secondly, a free supply of *oxygen* is, next to diet, highly important in the treatment of functional diseases of the liver. There is no doubt that exercise quickens the circulation, introduces more oxygen into the system, and operates beneficially on lithæmia. Observations have shown the value of sea-air, and patients with hepatic derangements and lithæmia will, especially under favourable circumstances, derive advantage from residence on the coast.

Aperients and cholagogues are of value in many cases, whether constipation is present or not. Aperients carry off not only bile but fluid from the intermediate circulation. The aperient salts are chiefly used. Daily experience shows also the value of certain mineral waters in functional diseases of the liver, as those of Carlsbad and the recently discovered Hungarian spring—Hunyàdi-János. These cause but little peristaltic action of the bowel, and purge without griping. Certain other aperients have long had a reputation as cholagogues, among which mercury stands pre-eminent. At the present day mercury has, however, lost much of its reputation, especially as a cholagogue. A practitioner gives a mercurial, and finds more bile in the stools and his patient relieved. A physiologist ties the common bile-duct, makes a fistula, and finds that less bile is discharged after the administration of mercury. The results of such experiments have indeed been contradictory. Kölliker and Müller obtained uncertain results. In 1858 Dr. George Scott found a diminution of bile after mercury. Mosler in 1858 found that calomel did not induce an increase of the amount of bile. In 1868 a commission of the British Medical Association, with Dr. Hughes Bennett amongst their number, came to the conclusion that mercury did not increase the amount of bile secreted. In 1873 Röhrig described mercury as a less powerful cholagogue than jalap, senna, etc., and placed calomel at the bottom of the scale of cholagogue medicines. The general effect of these investigations has been to discredit the cholagogue action of calomel very much. On the other hand, it has been urged that the results of such experiments do not apply either to man or to the diseased state of the liver. Now, much of the difference of opinion may be reconciled if we remember the osmotic circulation in the abdomen previously alluded to. A large proportion of the bile which enters the bowel is reabsorbed and carried back to the liver. Mercury and some other drugs produce bilious stools because they sweep away the bile before it is absorbed; and it is for this very reason that they are to be found at the bottom of Röhrig's list of medicines which increase the flow of bile from the common duct. It would appear, therefore, that mercury is a true cholagogue, and that more than if it were a mere stimulant of the liver, and thereby induced congestion. It may also act on the gall-bladder. But there is reason to believe that mercury is of use in other functional diseases of the liver unattended with biliousness. Patients suffering from such diseases continually confess this. Mercury may indeed be useful for the very same reason that it is useless in promoting the healing process—namely, by helping disintegration. It is perhaps for the same reason valuable in some cases of croup and in constitutional syphilis. Be this as it may, the clinical evidence in favour of mercury is overwhelming. Podophyllin acts much like mercury, but it has probably some affinity for the small intestine, and grips more than mercury. Jalap, senna, etc., are all valuable: Röhrig seems to consider them true cholagogues. Colchicum has some effect in this way; taraxacum probably acts mainly as a mild aperient.

Alkalies, next to aperients, are the most useful drugs in functional derangements of the liver, especially a combination of alkaline salts. The waters of Vichy, Vals, and Ems are valuable for the same reason. The beneficial effects of alkalies are not due to the neutralisation of acidity or of lithic acid, but to their influence upon the pathological state on which lithæmia depends. The administration of alkalies in lithæmia is, as a rule, well borne, but it should be occasionally interrupted.

Chloride of ammonium, mineral acids, tonics, and opium may be used in these cases; but tonics should be given with the greatest possible caution, otherwise they may do more harm than good.

Dr. Murchison concluded his lectures by insisting upon the importance of his subject. He confidently hoped that the day will come when we shall be able to arrest or prevent some of the most serious of the diseases referred to, and thus add another chapter to preventive medicine.

AT the Leavesden Asylum, twenty-eight patients had been received during the four weeks ending Saturday last, twenty-two had died, and seven had been discharged, leaving 1754 at present in the Asylum. At the Hampstead Asylum, during the same period, thirty patients had been received, three had died, and seven had been discharged, leaving 418 at present in the Asylum.

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OZONE.

THE following interesting facts relating to that curious atmospheric form of oxygen called ozone are from a lecture delivered before the Royal Society of Edinburgh by Dr. Andrews, of Belfast, who more than any other in this country has worked to advance our knowledge on this interesting subject. The lecture is published in full in *Nature*:—

"Soon after the discovery of ozone, Schönbein having observed that the air of the country frequently coloured a delicate ozone test-paper in the same manner as ozone itself, inferred that ozone is a normal constituent of our atmosphere. He concluded that the amount of this body present in the air is different in different localities, and in the same locality at different times, and with great boldness he attempted to connect its presence or absence with the prevalence or rarity of certain catarrhal affections. A new field for investigation was thus opened up, which has been assiduously cultivated by a large and zealous band of observers. Before referring, however, to their labours, it will be necessary briefly to allude to the present state of our knowledge regarding the existence of ozone in the atmosphere.

"Schönbein always maintained that ozone is a constituent of atmospheric air, and his various papers on this subject alone would, if collected, fill a large volume. In his last memoir he observes that the active substance in the air acts in a parallel manner on iodide of potassium and sub-oxide of thallium papers, although more slowly on the latter; and that the thallium paper, which has been coloured brown by the air, behaves towards reagents in the same manner as that which has been exposed to artificial ozone. From these facts he infers that the active substance in the air is neither peroxide of nitrogen nor sulphuretted hydrogen. He further states that the atmosphere never contains free nitric acid, although nitrate of ammonium in small quantities is frequently present; and that neither chlorine nor bromine can be present in the free state in air, on account of their affinity for hydrogen. Houzeau also maintained that the existence of ozone in the air was proved by the alkaline reaction of iodide of potassium paper, which had been decomposed by exposure to the atmosphere. Although experiments and arguments of this kind were sufficient to give probability to the view that the active substance in the atmosphere which produces these reactions is ozone, they were at the same time far from conclusive, and some of the ablest chemists in Europe accordingly considered the question doubtful, while others attributed the effects observed to the presence of oxidising agents altogether different from ozone. I will only cite on this point the opinion of M. Frémy, whose researches in conjunction with M. Becquerel on ozone have already been referred to. 'Without denying,' he remarked at a meeting of the Academy of Sciences in 1865, 'the importance of the indications given by the paper of M. Schönbein, or by that of M. Houzeau, I do not find that these reactions demonstrate with sufficient certainty the existence of atmospheric ozone. I am of opinion that the presence of ozone in the air must be established anew by incontestable experiments.'

"In 1867 I made a set of experiments which I had contemplated some years before, for the purpose, if possible, of finally settling this important question. These experiments have since been successfully repeated by Dr. C. Fox.

"The identity of the active body in the atmosphere with ozone we may now assume to be established beyond dispute, and the accuracy of Schönbein's views on this subject to be fully confirmed. To determine, however, the actual amount of ozone in the atmosphere is a problem of surpassing difficulty, on account of the extremely small proportion in which it exists, even when at a maximum. Its presence can be easily discovered by any of the ordinary iodised starch-papers, or even more readily by white bibulous paper which has been moistened with a dilute solution of iodide of potassium, and allowed to dry spontaneously in a dark room. If a slip of this paper be exposed for five minutes to a current of air, which will be often supplied by the wind, or may be produced by walking briskly, it will be found to have acquired a delicate red tint, if ozone be present even in the smallest quantities. The tint will be best observed by comparing the slip after exposure with another slip of the same paper which has not been exposed. The action of the diffused light of day on the paper is perceptible after so short an exposure, but this source of error can be easily avoided by enclosing the paper in a hollow cylinder of wood.

"Although, with the experimental resources now at our command, we can scarcely venture even to estimate the actual amount of ozone at any time present in the atmosphere, yet it may be possible, as Schönbein long ago proposed, by applying a chromatic scale to the indications of the test-papers, to ascertain approximately its relative amount in different localities, and its variations in the same locality. Such estimates must, however, be most uncertain, since the shades of colour produced on test-paper hardly admit of being defined by numbers; and in this particular case they are liable to a special source of error, as there can be little doubt that a large but unknown part of the ozone in the air which comes into contact with the paper is catalytically destroyed, and produces no chemical effect whatever. At the same time the ozonometer, especially when used with an aspirator, does unquestionably give indications of value regarding the ozone states of the atmosphere; and till more accurate methods are devised these observations ought certainly to be continued.

"Ozone is rarely found in the air of large towns, unless in a suburb when the wind is blowing from the country; and it is only under the rarest and most exceptional conditions that it is found in the air of the largest and best ventilated apartments. It is, in fact, rapidly destroyed by smoke and other impurities which are present in the air of localities where large bodies of men have fixed their habitation, and I have often observed this destructive action extending to a distance of one or two miles from a manufacturing town, even in fine and bright weather.

"Ozone is rarely, if ever, absent in fine weather from the air of the country, and it is more abundant, on the whole, in the air of the mountain than of the plain. It is also said to occur in larger quantity near the sea than in inland districts. It has been found to an unusual amount after thunderstorms—a fact which is favourable to the view that the presence of ozone in the atmosphere is due to the action of the free electricity of the latter on the oxygen of the air. The amount of ozone in the air is greater, according to some observers, in winter than in summer, in spring than in autumn; according to others, it is greater in spring and summer than in autumn and winter. As regards the influence of day and night, the observations do not all tell the same tale. Ozone has usually been found more abundantly in the air at night than by day, but some careful observers have found the reverse of this statement to be true.

"Schönbein was the first who attempted to connect the fluctuations of atmospheric ozone with the prevalence or absence of epidemic disease; and since this suggestion was first published, numerous observations have been made in different countries with the view of ascertaining whether there is really any connexion between the indications of the ozonometer and the health of a district. It has been asserted, for example, as the result of observation, that an outbreak of cholera is accompanied by a marked diminution of atmospheric ozone; but this statement has been disproved by later and more trustworthy observations. On the whole, I think it may be safely asserted that no connexion has yet been proved to exist between the amount of ozone in the atmosphere and the occurrence of epidemic or other forms of disease.

"The permanent absence of ozone from the air of a locality may, however, be regarded as a proof that we are breathing, if I may venture to use the phrase, adulterated air. Its absence from the air of towns, and of large rooms even in the country, is probably the chief cause of the difference which everyone feels when he breathes the air of a town, or of an apartment, however spacious, and afterwards inhales the fresh or ozone-containing air of the open country. It is, indeed, highly probable that many of the most important actions, by which the products of vegetable and animal waste are removed by oxidation from the air, are due to the action of ozone, and could not be effected by ordinary or inactive oxygen. If the amount of ozone in the atmosphere appear too small to produce such large results, we must remember that, from its powerful affinities, ozone is being continually used up, and must, therefore, be constantly renewed.

"The physiological action of ozone on the animal system is a subject of interest, and I am able to state the general results of two independent inquiries—one conducted a few years ago, by Dr. Redfern, in Queen's College, Belfast, the other recently communicated to this Society by Mr. Dewar and Dr. McKendrick. Dr. Redfern's experiments have not been published, but

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he has kindly supplied me with the following note on the subject:—'The general results,' he says, 'I obtained from about forty experiments conducted from May to September, 1857, to find the effects of oxygen and ozone on different animals, are as follows:—The respiration for a very short time of oxygen, containing about $\frac{1}{210}$th part of ozone, is certainly fatal to all animals. The same gas, when passed over peroxide of manganese and freed from ozone, is comparatively harmless, even when respired for long periods. Respiration of such a mixture of ozone for thirty seconds kills small animals, some dying after respiring it only fifteen seconds, whilst similar animals will live in good health for months after respiring oxygen alone for thirty-seven hours, the carbonic acid being removed during the experiment. Death is not due to the closure of the glottis, for it occurs when a large opening has been made in the trachea. Ozone causes death by producing intense congestion of the lungs with emphysema, and distension of the right side of the heart with fluid or coagulated blood, frequently attended by convulsions. If ozone be respired in a dilute form, the animals become drowsy and die quietly from coma, the condition of the lungs and heart being the same, except that the emphysema is less marked. Animals which have respired oxygen for more than twelve hours will now and then die suddenly from the formation of coagula in the heart, even after they have appeared in good health for some days.'

"The following are the conclusions which Mr. Dewar and Dr. McKendrick have deduced from their researches:—Inhalation of an atmosphere highly charged with ozone diminishes the number of respirations per minute, and reduces the cardiac pulsations in strength, the temperature of the animal being at the same time lowered from 3° to 5° C. After death the blood is found to be in a venous condition. Neither the capillary circulation nor the reflex activity of the spinal cord is appreciably affected. The same remark applies to the contractility and work-power of the muscles. Ozone acts on the coloured and colourless corpuscles of the frog like carbonic acid. Ciliary action is not affected by ozonised air or oxygen, but if the layer of liquid be very thin, the cilia are readily destroyed.

"The thermal changes which accompany many of the reactions of ozone are well marked, and their investigation, which has been undertaken by Mr. Dewar, promises to yield a valuable addition to our thermo-chemical knowledge."

THE CONTRA-INDICATIONS TO THE REMOVAL OF MELANOTIC TUMOURS,

DERIVED FROM THE MICROSCOPIC EXAMINATION OF THE BLOOD AND THE URINE.

It is important to know before extirpating a melanotic tumour whether the viscera have also become the seat of the morbid growth or not; and M. Nepveu (*Gazette Médicale*, No. 5, 1874, p. 59) has lately shown that this point can be settled with almost absolute certainty by examining the blood and urine of the patient microscopically. The white corpuscles are found, in cases of visceral implication, to be increased in number, so that with Hartnack (ocular iii., objective 7), fifteen, twenty, or even forty are visible in one field, and they contain, in addition, fine blackish granules of pigment. The serum shows small brownish-red granules, and also flexible granular casts without consistence, and analogous in form to those occurring in the urine in Bright's disease. These, M. Nepveu considers, are moulds of capillaries. The red corpuscles seen *en masse* may have a more or less distinctly pronounced sepia tint.

The urine is darker in colour than ordinary, and assumes a blackish hue if nitric acid or bichromate of potash be added to it. Under the microscope cylindrical masses are seen in the deposit, or else irregular accumulations of brown granulations, like the hyaline casts of Bright's disease in form. If the urine be allowed to evaporate in the air, clumps of fine greyish granules become visible, which surround crystals of various shapes, all of which have a dark hue.

As examples of the application of these facts to diagnosis, M. Nepveu relates two cases. The first was that of a man of thirty, from whose thigh a pigment mark had been removed because it had become irritated by the friction of his trousers. A few months afterwards the glands in the groin enlarged, and an incision was made into them, under the impression that there was suppuration; but instead of that a fungoid growth appeared, which rapidly increased in size, and extended up into the iliac fossa. The blood and urine were examined a little while before the patient's death, and found to have the characters previously described. At the necropsy, metastatic nodules of melanotic sarcoma, resembling the primary tumour, were found in the liver and lungs, in the bones of the cranium and sternum, and in some of the lower ribs. There was not a single nodule in the kidneys, but the whole organs had a slight sepia tint, with one or two pigment spots scattered here and there; so that melanuria does not point necessarily to implication of the kidneys themselves, but only to the presence of a great amount of pigment in the blood, and so to its generation in the other viscera. In a second case one melanotic tumour was removed from a man of fifty-one in December, 1871. In 1872 he had a relapse, and he died in November, 1873. His liver, spleen, kidneys, and osseous system were the seat of secondary deposits, and the diagnostic signs of visceral affection were previously found in the blood and urine.

FROM ABROAD.

Hypodermic Injection of Carbolic Acid in Erysipelas.

Dr. Aufrecht, of Magdeburg, having last year lost four patients of advanced age who were attacked by erysipelas of the extremities after injury, determined to try the effect of carbolic acid, and in a short paper in the *Centralblatt* for February 21 he communicates the results which he obtained in two cases. If (he observes) it be true that erysipelas in such cases as these arises from the penetration of organisms into the subcutaneous tissue, and their multiplication there, and if carbolic acid possess the power of destroying such organisms or of impeding their injurious influence, this substance should be able to prevent the spreading of the erysipelas, and to a certain extent diminish its danger. In order to ascertain whether carbolic acid may be hypodermically employed without any ill consequence, he experimented upon himself with a 1 per cent. solution, of which he threw in six decigrammes at a time—*i.e.*, the amount contained in an ordinary Pravaz's syringe. Neither local nor general ill-effect resulted. Since then he has employed the injection in two cases—the one a woman aged fifty-six, with erysipelas of the forearm and the hand, arising from a slight abrasion; and the other a man, aged eighty-two, with erysipelas of the thigh following slight ulceration of a cicatrix. In the first case five injections were employed during three successive days, and in the second four injections within two days. The injections were thrown into the sound subcutaneous tissue just beyond the margin of the erysipelas as it advanced towards the trunk. Its progress was at once arrested in the direction where the injections were made, the injection being repeated in consequence of some insular erysipelas appearing beyond the first injection-points. More remarkable still than this limitation of the erysipelas was the decided influence of the injections in diminishing the febrile action and the frequency of the pulse, and in inducing a general improvement in the patients' condition. Convalescence was quite satisfactory in both patients.

The Election of Professor Gosselin.

The hard-fought battle between the surgeons and the physiologists, for the purpose of filling the place left vacant by the death of Nélaton, has terminated, after three meetings have almost entirely been occupied by discussions with closed doors, in the triumph of the former. The contest has been warm and almost bitter, turning more on principles than persons. Everyone admits the desirableness that physiologists of such eminence as MM. Vulpian and Marey, should be members of the Academy, but many do not regard the section of Medicine and Surgery as the appropriate portal for their admission, at all events when eminent practitioners are putting in their claims. But these practitioners are just the persons that the *savants par excellence* say have no business within its walls. Foremost among these is M. Claude Bernard, who, on more than one occasion, has stigmatised the worthlessness of practical medicine, unless based upon and justified in its

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conclusions by those derived from experimental physiology. He is warmly seconded by the venerable M. Andral, who in former days was a pillar of French clinical medicine, although his valuable hæmatological investigations—almost the earliest of their kind—amply show that he was not the mere practitioner. The surgeons were chiefly defended by MM. Bouillaud, Cloquet, and Sédillot. At last, the list presented for voting placed Professor Gosselin on the first line, MM. Broca, Demarquay, and Richet (alphabetically) on the second line, and MM. Marey and Vulpian (alphabetically) on the third line. The contest, however, prevailed only between the first and second lines, and 60 members being present, 31 votes were required to secure the election. At the first voting this could not be obtained, only 25 votes being given to M. Gosselin, while M. Marey received 18, M. Vulpian 13, and M. Broca 3, some enthusiastic friend of M. Piorry giving him a vote. At the second voting the 60 votes were thus divided—28 for M. Gosselin, 19 for M. Marey, and 13 for M. Vulpian; and at the third voting by ballot, M. Gosselin obtained 38 votes to M. Marey's 21, and M. Vulpian's 1. The election of M. Gosselin has given great satisfaction to the profession, for it is felt that the leading practical surgeons have their place in the Institut, just as among ourselves we admit the propriety of their admission into the Royal Society. By its artificial distribution of its members into sections, the Academy seems to very much embarrass its freedom of choice, and to generate animosities without securing any compensatory advantage.

Distribution of Prizes at the Académie de Médecine.

For the first time since the war the Academy held its anniversary in full state on the 17th inst., a large number of ladies being present. M. Roger, the Annual Secretary, undertook the somewhat difficult task of summing up, in presence of so miscellaneous an audience, the reasons which had actuated the various committees in arriving at their decisions concerning the various essays sent in in competition for the prizes. At all events, he avoided wearying his auditors, and by some has been thought to have treated grave subjects in a somewhat jocular manner. The first award related to the *Itard Triennial Prize*, to be adjudged to the author of the best book or memoir on Practical Medicine or Applied Therapeutics which had been published at least two years ago. Of the seven works submitted, only two were thought to fulfil the conditions of the prize, and to neither of these was awarded the full amount (2700 fr.) of the prize. To M. Deroubaix, of Brussels, was awarded 1000 fr. as a "recompense for his 'Traité des Fistules Urogénitales de la Femme.'" This seemed rather a delicate subject to allude to amidst an assemblage of ladies young and old, but M. Roger quietly observed that "woman often has to pay dear for maternal felicity, for she has, according to biblical law, to bring forth in pain, and sometimes suffering is her attendant for many years. It is to the cure of one of the saddest consequences of delivery that M. Deroubaix's work is consecrated." A recompense of 500 fr. was also accorded to M. Armieux for his work on the Baréges Mineral Waters. For the *Academy Prize* of 1000 fr.—subject, "Resection of Bones in their Continuity after Gunshot Wounds"—only one essay was sent in, and to its author, M. Puel, the prize was adjudged. The essay does not seem to have been founded on original observation, but, from the comparison of all attainable statistical facts, its writer comes to the conclusion that resections in the diaphyses of bones, undertaken not at once but secondarily, have been of real service in conservative surgery. For the *Godard Prize* of 1000 fr., for the best work on external pathology, four works were sent in, and none being deemed worthy of the entire prize, it was divided between two of the competitors, 700 fr. being awarded to M. Poncet for his essay on the "Mal Perforans of Nélaton," and 300 fr. to M. Felizet for his "Anatomical and Experimental Researches on Fractures of the Cranium." By careful examination of fractured crania, he has convinced himself that the skull, far from being fractured indifferently at any point, is so only in certain determined directions; while at a portion of the base, placed between the basilar apophysis and the foramen magnum, the bone is never broken, this constituting a kind of true centre of resistance. The *Amussat Prize* of 1000 fr. has been adjudged to M. Jaques Reverdin, of Geneva, for his memoir "La Greffe Epidermique," summing up all that is known concerning this great advance in surgical therapeutics, which he has been the means of so effectually introducing. The *Barbier Prize* of 3000 fr., for the discovery of a cure for an incurable disease, brought forward this year only one competitor, who claimed it for the cure of cancer of the breast. The grounds of his claim were somewhat singular, as not only did his treatment consist merely in the administration of large doses of cod-liver oil, but of the only patient of twenty-two so treated who recovered no traces could be found. Three other prizes also have failed to obtain claimants, and it is quite evident that the disposition to contend for rewards of this kind is greatly on the decline.

But the prize upon which M. Roger expends most of his energy and eloquence is that of the Marquis D'Ourches, concerning premature interment. This, in fact, is two prizes, one of 20,000 fr. for the discovery of a simple vulgar means of recognising in a certain and indubitable manner the signs of real death—a means which, moreover, may be put into force by poor and ignorant villagers; and the other for the discovery of a scientific means of recognising with certainty the signs of real death. This question, at all events, has succeeded in attracting the attention of competitors, for no less than 102 essays have been sent in. The first portion of the prize of 20,000 fr. has not been adjudged, while the second portion of 5000 fr. has been divided among six competitors. M. Roger prefaces his account of these awards by a lively historical view, in which the various fables and exaggerations concerning premature interments are disposed of very summarily. The old story of Vesalius also receives no credit from him. "Neither is it true," he says, "that men of art have committed cruel mistakes with regard to apparent death. Vesalius, the creator of anatomy, first physician to Charles V. and Philip II., directed his scalpel into the body of a gentleman while yet alive, and for this he was condemned to death, and by commutation to exile in the Holy Land. This is the way history is written! For this fact about Vesalius contemporary chronicles may be searched in vain. The autopsy of the gentleman, the capital condemnation, all is pure invention; and if Vesalius repaired to Palestine it was only for his health."

Of the 5000 fr. awarded, 500 fr. are given to M. Martenot de Cordue for his observations on the effects of the flame of a candle on the pulp of the finger. As long as life persists, this burn produces ampullæ filled with serosity, while, when life is extinct, they contain nothing but vapour. The condition of the eye has long been constituted a sign, and of late the disappearance some hours after death of the dilating power of belladonna and of the contracting power of Calabar bean has been noted. M. Larcher has been rewarded with a recompense of 500 fr. for the discovery in the eye of what he regards a new sign of death. As the result of the examination of nearly 900 subjects, he has observed that a certain sign of death is the occurrence of a shaded and greyish spot, first at the outer portion of the sclerotica and gradually invading its whole surface. It is a sign of local decomposition which precedes general decomposition by several hours. M. Poncet also receives an honourable mention for a sign as positive and more rapid in appearance—viz., a general decoloration of the fundus of the eye, this changing from the intense red seen by the ophthalmoscope during life to a yellowish white. M. Molland, one of the official municipal verifiers of death, has obtained 2000 fr. of the prize in consequence of his observations concerning *cadaveric lividity* of dependent parts of the body made in 16,000 subjects. From these he concludes that such lividity is a constant sign of death, which is of the more practical value as it generally appears very soon after death. For investigations as to the *temperature of the body after death* as a sign of death, M. Bouchut (under the *nom de plume* of Pierre Durand) and M. Linas have each received 1000 fr.

For the 20,000 fr. prize for a sign of death capable of being utilised by a simple villager, there were, it seems, plenty of competitors from all parts of the world, the great majority being non-medical persons of every variety of station and occupation. As might be expected, the most absurd proposals were made, and none worthy of academic approval presented themselves. One exceptional award is made, in which we suspect a sly hit is aimed at the Professor of Legal Medicine at Leipzig, to whom, under the pretext that nationalities must not be regarded in decreeing academic honours, a very honourable mention is accorded for a procedure which the committee on several trials found rarely successful. His constant and infallible sign of death consisted in the production of a parchmenty condition of the skin by rubbing it for a few minutes with a moistened brush. This 20,000 fr., which has been offered several times in vain, is, according to the testator's

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will, now to revert to the poor of his parish, where, at all events, authorised claimants will be found.

Besides the above prizes, numerous medals have been presented to those who have distinguished themselves among the Physicians for Epidemics and Medical Inspectors of Mineral Waters; and more than a hundred silver medals have also been distributed to physicians and *sages-femmes* acting as vaccinators.

The period for sending in essays for the prizes of 1874 having expired, we only give the subjects for the prizes of 1875, viz.—1. The Academy Prize of 1000 fr., "The Treatment of Aneurisms by different modes of Compression." 2. For the Portal Prize of 2000 fr. candidates are free to send in essays on any subject in Pathological Anatomy. Still, the Academy thinks it right to recommend their attention to the following subjects:—(1) Secondary Cancer of Bone; (2) Muscular Atrophies; (3) the various species of Cirrhosis of the Liver. 3. Madame Civrieux's Prize of 900 fr., "Sleeplessness." 4. The Capuron Prize of 3000 fr., for the best unpublished work on any subject included in Obstetrical Science. 5. The Barbier Prize of 3000 fr., for the discovery of Complete Means of Curing Affections usually regarded as Incurable—*e.g.*, hydrophobia, cancer, epilepsy, scrofula, typhus, cholera, etc. 6. The Godard Prize of 1000 fr., for the best work on External Pathology. 7. The Amussat Prize of 1000 fr., to be given to the author of the work on researches which, simultaneously based on anatomy and experiment, has realised or prepared the way for the most important progress in Surgical Therapeutics. 8. The Lefèvre Prize of 3000 fr., "Melancholia in its relations to General Paralysis." 9. The sexennial Argenteuil Prize of 8000 fr. will be given to the author of the greatest improvement in the Curative Treatment of Stricture of the Urethra during the years 1869-74; or, subsidiary to this, to the author of the greatest improvement in the treatment of other diseases of the urinary organs. 10. A prize of 1200 fr., offered by the Committee for Infantile Hygiene, for "The Statistics of the Mortality of Infants from the age of one day to that of one year." 11. The St. Lager Prize of 1500 fr., for the experimenter who succeeds in producing an enlarged thyroid gland in animals by the administration of substances extracted from the soil or waters of goitrous localities.

All essays, written in French or Latin, to be delivered at the Académie by March 1, 1875.

After the distribution, M. Béclard delivered a powerful *éloge* on Louis.

REVIEWS.

Biographical Sketch of Dr. Ephraim McDowell. By John D. Jackson, M.D. Louisville. 1873.

This pamphlet is a reprint of an article from the last volume of the *Richmond and Louisville Medical Journal*, and would not call for any lengthened review if it did not serve to throw light upon some of the questions which have lately been somewhat warmly discussed respecting the history and progress, the decline and fall, and the recent revival of ovariotomy.

Dr. McDowell was born in Virginia in 1771. He became a pupil of Dr. Humphreys, a graduate of the University of Edinburgh, who practised in Virginia, and in 1793-94 he himself attended lectures in the Edinburgh University, and the private course of John Bell, who at that time did not belong to the Faculty. He returned to America in 1795, began practice at Danville, in Kentucky, and soon "became known throughout all the Western and Southern States as the first surgeon west of Philadelphia." In 1809, after having been fourteen years in practice, he performed ovariotomy, with set purpose and design, for the first time in the history of surgery, upon a Mrs. Crawford, who recovered and lived till 1841, when she died at the age of seventy-eight. It is true that Dr. Houston, more than a hundred years before McDowell, incised an ovarian cyst, and "squeezed out all I could, then stitched up the wound," but, as Mr. Spencer Wells says, this isolated case "will hardly deprive Dr. McDowell of his undeniable merit of having been the first who, guided by scientific principles, enriched modern surgery with the operation" ("Diseases of the Ovaries," p. 300). The reasons why Mr. Spencer Wells claims ovariotomy as an operation the honour of which is chiefly due to British surgery, are that it was advocated theoretically by William Hunter in 1762, and by John Hunter in 1785, and that it was the teaching of John Bell which led McDowell to the determination to perform the operation. Dr. Jackson, in the memoir before us, says—"The idea that his success would be pleasing to his former preceptor, John Bell, *to whom he felt he owed his determination to perform the operation* (according to his nephew), seemed more than all else to have induced him to put his cases before the professional world." A son of a Scotchman, born in Kentucky, pupil of an Edinburgh graduate, goes to Edinburgh and attends John Bell's lectures—who, in the words of Dr. Gross (another of McDowell's biographers), "dwelt with peculiar force and pathos on the hopeless character of ovarian tumours when left alone, and of the practicability of removing them by operation." Then, strongly impressed by the teaching of Bell, McDowell takes the first opportunity of proving that the lesson had not been lost. All honour to him; but while we render to America the honour which is McDowell's, let us also render unto our own country the honour due to the Hunters and to Bell.

We have not space now to follow the varying features of ovariotomy in Great Britain from Lizars' first case in 1825, and Granville's attempts in 1827, to the first successful case in England by Jeaffreson of Framlingham in 1836, and the success of other provincial surgeons; to the first completed, though fatal, case in London, by Mr. B. Phillips in 1840, and the first successful case in London by Mr. Walne in 1842, and the scattered cases, few and far between, and the various causes which had brought this operation into general discredit, before the example of Mr. Spencer Wells led to what has been well-called by various writers its *revival*. In our last volume some notice was taken of an attempt to show that the late Mr. Baker Brown, who was undoubtedly the *predecessor*, had also been the *preceptor* of Mr. Wells, and we inserted a letter in which the son very naturally states the case in the way most honourable to the memory of the father. This question called forth a letter from Dr. Keith of Edinburgh, which, as giving the opinion of a highly competent and perfectly impartial judge, is of immense value in determining a matter of great importance in contemporary surgical history. Writing as an "independent onlooker" on the claims of Mr. Brown and Dr. Clay, Dr. Keith says—"Few watched more eagerly than I did the history of this operation, and few know so well the details of the early cases. Till 1858, I could find nothing whatever anywhere to encourage, but everything to deter, one from attempting it. Ovariotomy was then, as an operation, simply nowhere; and, had the practice of using Dr. Clay's long intra-peritoneal ligatures been continued, it would have yet been nowhere. Up till that year, Mr. Brown had lost seven out of his nine patients, and had ceased operating for upwards of two years and a half. Surely there was nothing for anyone to learn from such results, except, perhaps, what there might be to avoid. But when Mr. Wells began to publish his results, it was evident that a period of progress had begun. He continued to give every case, successful as well as unsuccessful—the only way, in the case of a new operation, to give or restore confidence. I think I know pretty well what the verdict of the profession on this matter will be; and when I think of the weariness of flesh and spirit with which Spencer Wells's great work has been accomplished—and there never has been anything like it in surgery since surgery began,—it seems to me strange that any doubt could have arisen at all."

We need say nothing more on this part of the subject. But we cannot conclude without noticing the curious manner in which Dr. Jackson brings forward his claim for honour to McDowell, not only from Americans, but from the whole world. After quoting Peaslee to show the enormous saving of human life which is due to ovariotomy, Dr. Jackson says that if McDowell had lived in Athens in the days of the glory of ancient Greece, "rank among the gods, with a temple and an altar, would have been accorded him by acclamation of the people. Had he lived in the palmy days of the Roman Republic, the highest civic honours, a medal and a statue, if not a shrine in the temple, would have been his by a decree of the Senate; and had Ephraim McDowell been born, and flourished in any one of the principalities of Europe, instead of the United States, long since would the Government, proud of such a son, have conferred titles of distinction upon him and his children while living, and erected a fitting monument to his memory when dead. . . . . While Kentucky, and nearly every State of the Republic, has at different times voted monuments, statues, or paintings to one and another political favourite or military idol of the day, the worthiness of the commemoration of none of whom is to be compared to that of

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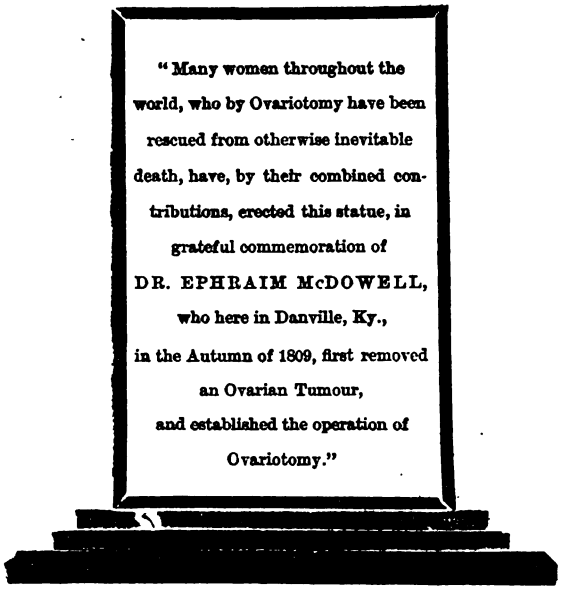
McDowell, and while if our State should erect the tallest shaft in all the land to mark his resting-place, she would but justly honour the worthiest of honour of all her children; yet does his fame not rest with us alone, nor is the beneficence of ovariotomy confined alone to our part of the globe. Like Jenner, McDowell has been a benefactor for the generations of all time and all countries; and as a few years ago the world at large contributed to the statue of Jenner, now erected in Hyde-park, London, so do we think it most fitting that all nations should be allowed to contribute to a suitable statue to McDowell, to be erected in Danville, the scene of the first ovariotomy. But since Dr. McDowell has been woman's special benefactor, we think it would be especially appropriate that the gratitude of the women of all nations should be allowed to display itself in the erection of a fitting memorial to their friend. Indeed, that a bronze statue of life-size should be erected solely from the voluntary contributions throughout the world of those women who may owe their lives to the operation of ovariotomy.


"Many women throughout the
world, who by Ovariotomy have been
rescued from otherwise inevitable
death, have, by their combined con-
tributions, erected this statue, in
grateful commemoration of
DR. EPHRAIM McDOWELL,
who here in Danville, Ky.,
in the Autumn of 1809, first removed
an Ovarian Tumour,
and established the operation of
Ovariotomy."

We may say, "Better late than never," and also ask whether it might not be a good plan for republics, monarchies, and empires to reward the men who do good service to the State while they are living?

Lectures on Diseases and Injuries of the Ear delivered at St. George's Hospital. By W. B. Dalby, F.R.C.S., M.B. Cantab., Aural Surgeon to the Hospital. London: J. and A. Churchill.

The literature of otology is rapidly assuming great proportions, and promises soon to rival both in quality and quantity that of the sister science of ophthalmology. As usual, the greater part of the best work comes from Germany, though France and even Italy are not idle. Our American cousins have shown great zeal in the cultivation and discussion of aural subjects, in the formation of otological congresses, and the publication of works devoted specially to aural surgery. Great Britain stands at present very much in the rear rank with regard to the production of first-class aural surgeons, and of works that may be at all compared with the writings of Troltsch, Politzer, Grüber, Helmholtz, and many other Continental writers. However, we are not entirely dead to the existence of a scientific aural surgery, though our works are mainly of a practical character. That which most strikes one familiar with the practice as well as with the literature of the subject is the great want of originality in nearly all recent English writings. Foreign authorities and discoveries are quoted in every chapter; and even in the domain in which Englishmen, from their practical character, would naturally be expected to shine—viz., that of treatment,—we have nothing that can compare with the improvements of the German school. The mantles of Wilde, Pilcher, and Toynbee have surely not fallen on their successors.

The little book before us consists of a reprint of lectures originally published in the *Lancet* during the latter part of 1872, with additions and alterations. In it Mr. Dalby discusses, in a pleasant fashion, most of the leading topics of aural surgery, and certainly puts them in a clear manner before the student. The first lecture deals with affections of the external ear, and in speaking of foreign bodies, his advice, though anything but new, is thoroughly sound. There is no mention of a very simple and safe method which we know, from our own experience and that of others, to have been very efficacious—viz., the use of a loop of thin wire, or even a horsehair. When syringing (which should always be resorted to first) has failed, and the cautious use of forceps has been of no avail, this simple contrivance has proved effectual.

Lecture II. deals with inflammations of the external meatus, exostoses, and malignant growths, and concludes with a sketch of the anatomy of the tympanum. In treating of Eustachian obstruction in the latter part of this lecture, and in the greater part of the next, the author, while describing Politzer's method, and properly recommending the use of a bag with a valve at the bottom, omits to caution the student against a common source of fallacy, and to mention some circumstances which interfere considerably with the appreciation of the delicate sound produced by the motion of the membrane. We have known students who were not beginners mistake the sound caused by the air being forced through the nasal secretion, and that produced in the act of swallowing, for the proper sound; and the noises thus produced are not unfrequently sufficient to disturb the accurate auscultation of the tympanum. We fail to find mention of a valuable aid to diagnosis when the use of the otoscope has failed us. It is one we invariably practise, and no one should give an opinion on a case without having applied the method. We allude to ocular inspection of the membrane while the patient practises the Valsalvian experiment, or while the air-douche is applied by an assistant, or even by the patient. By this method we have been able to detect motion of the membrane when the otoscopic result was negative. Here, again, we would point out a source of fallacy which, we believe, no work, English or foreign, takes note of. In a certain small proportion of cases the membrane may be seen to move in part or whole, faintly or more freely, and auscultation may render perceptible a delicate sound; yet the Eustachian tube is completely obstructed in a part of its length near the tympanic extremity. We have verified this by the passage of a catheter, through which a bougie was introduced, which failed to enter the tympanum. At first the explanation of the mechanism by which the movement of the membrane was brought about was not clear to us, but on reflection the following one seemed probable, and is, to some extent, demonstrable by experiment. As the air was forced into the pervious portion of the tube it came in contact with a plug or other obstructing cause, and the impulse was propagated to the contents of the tympanic cavity, and thus to the membrane. Such cases are, of course, uncommon, but their occurrence seems to us of sufficient importance to be mentioned in this place.

We entirely agree with Mr. Dalby's remarks anent the use of the catheter: it is valuable as a means of treatment, but is rarely required for the purposes of diagnosis.

In Lecture V., page 90, when speaking of the treatment of catarrh of the tympanum by incision of the membrane, the author makes use of the following words:—"And in no cases that have fallen under my observation has the hearing been disimproved." We do not object to the coining of expressive and euphonious terms, but surely "disimproved," even if it be expressive, is anything but elegant.

The limits of an ordinary review warn us that our notice of this work must close. Being much interested in aural surgery, we have gone carefully through it, and would have gladly seen more information and increased light on the pathology of nervous affections, the value of electricity, and various other subjects, but have failed to do so. Meanwhile we may truthfully say of Mr. Dalby's book that it is a good one to place in the hands of those who require an outline of the subject.

Leave of absence for six months has been granted by the St. Pancras Guardians to Dr. Harding, one of the district medical officers of health, to enable him to take a voyage to Australia or New Zealand for the purpose of recruiting his health.

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REPORTS OF SOCIETIES.

ROYAL MEDICAL AND CHIRURGICAL SOCIETY.

TUESDAY, MARCH 10.

Dr. E. H. SIEVEKING, Vice-President, in the Chair.

MR. SAVORY showed the upper and lower jaw-bones from a case of Necrosis from Phosphorus, and gave an account of the case.

Mr. JOHN BIRKETT said the case was a very remarkable one, and he thought this was the first time in which the whole of the lower jaw had been replaced. He referred to the case of a young child he saw many years ago, who suffered from cancrum oris, and a part of the lower jaw exfoliated, and the lost part was reproduced; the patient did well, and was now about thirty years old and had a useful lower jaw. The fact which he had just ascertained from Mr. Savory, that sensation remained in that part of the face supplied by the nerve passing through the mental foramen, was interesting. In the case he had referred to sensation was as perfect as before, though it could scarcely be believed that a piece of the jaw extending posteriorly to the mental foramen could be removed without injury to the nerve.

Dr. DRYSDALE asked the cause of the patient's death; and if from the effects of phosphorus, what was the state of the viscera.

Mr. COOPER FORSTER thought the case was worthy of a more detailed account, and hoped Mr. Savory would favour them with it. He would like to know how he had removed such large pieces of bone entire.

The PRESIDENT said he was much interested in this question, and would be glad to know if phosphorus-disease was as frequent now as formerly. About twenty-five years ago he was engaged in an inquiry on this subject, and had visited most of the match manufactories in the East-end of London. He found that the frequency of the disease was in direct proportion to the badness of the ventilation. In one manufactory where this was attended to there was not one case. He remembered seeing one man who had himself removed the whole of the lower jaw by sawing it across in the middle; he did not think the condyles had come away; the bone was reproduced.

Mr. SAVORY, in reply, said that as the disease had been recorded, he thought an abstract was sufficient. With regard to the removal of the lower jaw, this was very simply effected; it was performed seven months after the first symptoms of mischief about the face. He divided the bone in the middle line, and each half was drawn out without force or hæmorrhage. When the jaw was removed there was no evidence of new bone, but a few weeks after new bone was felt in the left angle. The boy was about eighteen, stunted, and looked about fourteen; he was five feet high. He had been employed in Bryant and May's factory for five years. During the last two he had been employed in preparing the phosphorus paste; this is made by heating over hot water phosphorus and gum, the mixture requiring to be kept constantly stirred. The following points were to be noticed: first, the extent of the necrosis, all the lower jaw and condyles, and both upper jaw and the adjacent bones, being involved; secondly, the very complete reproduction of the lower jaw, which was reproduced in six months. On carefully examining the specimen, a normal periosteum was found in contact with the bone, so that probably it had been separated, and so took part in the reforming of the bone. Then there were two teeth in the lower jaw, one of which was carious; all the teeth were in the upper jaw. The patient died of exhaustion from the great discharge.

Mr. GEORGE GASKOIN read a paper, "On the Relations of Asthma to Skin Disease." After mentioning that the hereditary character of psoriasis has been much exaggerated, according to the usual acceptation of the term "hereditary," the author affirms that its connexion with asthma forms the most conspicuous feature of this complaint, being discoverable in the history of at least one-third of the cases. In a continuous inquiry, asthma has been sought for in 2000 cases of skin disease, exception being made for those of a parasitic and syphilitic class; and the result has been its appearance in 141 cases, of which sixty-five are cases of psoriasis. Further observations in the course of the paper affirm the dependence of skin disease on the phthisical and arthritic diatheses in the great majority of cases; their influence being observable, with very few exceptions, in those families which present instances of hereditary transmission.

Dr. DRYSDALE said he had seen hereditary ichthyosis accompanied with emphysema in four members of the same family. He had also seen a case of alopecia of the whole scalp accompanying emphysema. Other cases of chest disease were attended with skin diseases. He did not understand in what way Mr. Gaskoin used the term "asthma."

Dr. CHURCH said he, too, would be glad to hear a definition of asthma. Mr. Gaskoin had spoken of a large number of cases in his paper; he did not know if he referred to the spasmodic form; if so, in his experience it was very rare. But if by asthma Mr. Gaskoin meant emphysema and pulmonary catarrh, which was very common, then the connexion between cutaneous diseases and chest complaints was explicable.

Dr. SYMES THOMPSON said the relation between asthma and psoriasis had been pointed out before, but no statistics, as in the paper, had been brought together; and he thought the paper was valuable in this respect, provided we knew what was meant by the term asthma. Since arsenic was said to have been of benefit in the cases, he would suppose the asthma was of the spasmodic kind, as arsenic had proved of great service in such cases.

Mr. GASKOIN said he had met with psoriasis associated with asthma much more frequently than was generally supposed. The relation to phthisis was not so frequent. He had taken as asthma what was called so by the people, and did not often find it was the dry spasmodic kind. He had taken every proper precaution to ascertain the facts.

Dr. SYMES THOMPSON communicated a paper by Dr. Leonard H. J. Hayne, R.N., Surgeon to H.M.S. *Doris*, "On the Amount of Carbonic Acid found by experiment in the Air on board Wooden Frigates."

THE PATHOLOGICAL SOCIETY.

TUESDAY, MARCH 17.

Sir W. JENNER, Bart., M.D., F.R.S., President, in the Chair.

ADJOURNED DISCUSSION ON CANCER.

(*Continued from page* 335.)

MR. HENRY ARNOTT said that it seemed to him, in listening to the speech of Sir James Paget, and in reading the address of Mr. De Morgan, that the subject was so vast, and the points raised so embarrassing from the confusion of hypothesis and observation, that they could not hope to do more than come to an understanding upon some one point. One thing was striking—that those who held the local origin of cancer, admitted so far, at the same time, its constitutional connexion that Sir James Paget was able to reconcile their observations with his own belief. Mr. Arnott therefore fancied that one must admit some great part played by the constitution in the production of cancer; yet he was not quite convinced by Sir James's arguments. The ratio of cases of undoubted transmission of cancer by inheritance seemed to be much larger than has hitherto been believed. His own experience had been confined to hospital-patients, but he confessed he had thought his seniors rather overstated the facts. But granting all this about the inheritance of cancer, it did not seem to him to throw much light on the question. Sir James had admitted that the most simple tumour might be so inherited, but he drew an important line between the simple fact of inheritance and the manner of inheritance. Now, it seemed to him (Mr. Arnott) that if one had five minutes to consider the subject, one would be able to meet some of Sir James's remarks on this point. One explanation of this alteration of manner of inheritance between simple and cancerous tumours was that the former are chiefly overgrowths of simple tissues, and not heterologous. Cancer of the breast in a mother may appear (perhaps) in muscle, in bone, or in any other part of the body of her offspring; but if she have a fatty tumour she can transmit this in the same tissue only—not necessarily in the same part. In another very striking part of his speech Sir James had asked why we do not find a local recurrence of cancer as we do of the recurrent fibroid tumours or sarcomata. Here the histologists might come to the rescue. Sir James said it does not lie in the physical characters of the tumour. for osteoid cancer, one of the most infectious tumours

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of the hardest tissues met with in the body. But this was not the point; it was not the gross hardness or softness of the tumour, but the distribution of its elements. Here he found himself at variance also with Mr. Simon, who seemed to underrate the importance of mobility of the elements of the tumour. Illustrating his remarks from diagrams which he had prepared, Mr. Arnott proceeded to say that when a direct relation is discovered between the mobility of the elements and the malignancy of a tumour, the observation should not be passed lightly by. In a scirrhus of the breast the cells lie quite loose in an alveolus, and may be hurried away at any time. In a chronic mammary tumour, on the other hand, the cells are epithelial, not epithelioid; they are in close, mutual contact, and not easily carried away. In glioma of the eyeball in infants the union of the cells is loose, and so this is found to be of all tumours one of the most malignant. In spindle-celled sarcoma the cells are bound together by an intercellular material, and so it is found to be not nearly so malignant as cancer. So with other tumours. Epithelioma, for example, is not so malignant as cancer, and the elements stick close together. In regard to rodent ulcer, Mr. Arnott confessed that he had regarded it as a form of cancer, but must reconsider the point after the remarks of Sir James Paget. In it the cells are still more closely coherent, and the growth is still less malignant. And so it would seem that, although histologists had lately appeared to take too prominent a part in discussions on cancer, much had still to be learned from them. Again, the position of tumours affects much their malignancy, where their structure does not. His own observations had shown him that, other things being equal, much of the malignancy of certain tumours may be referable to their situation; and that malignancy will thus vary directly as the warmth, moisture, great vascular supply, free lymphatic connexions, and functional activity of the part. Thus an epithelioma at the bridge of the nose proves very slowly malignant; but let the same disease attack the frænum of the tongue, and the patient dies in a year. If but one fact were well settled after this discussion, they would do well. Admitting some constitutional element in cancer, we must admit something similar in simple tumours; and if we bear this in mind, and consider at the same time the anatomical peculiarities and position of certain tumours, we need not be driven to search for any hypothesis of a blood-disease in the sense of syphilis or gout.

Sir William Gull said that he wished he had Sir James Paget's power of expression, for he would then be able to demolish Sir James's structure of the constitutional origin of cancer. The word "constitution" had two different meanings. He apprehended that when Sir James spoke of syphilis being constitutional by inheritance he referred to some condition of the ovum or spermatic fluid. There is at first no blood in the ovum. If one considers the development of the ovum and its differentiation into organs, one must trace this constitutional condition to a local seat. He would allow that cancer is liable to be inherited, yet it must, according to the laws of all scientific inquiry, be localised somewhere. "Constitutional" is an expression true in the ovum, but not in the body, for here differentiation has taken place. Now, it is certain that some tissues are more liable to cancer than others. He would challenge the constitutional theorists to say why certain parts of the intestinal tract should be specially the seats of cancer. There are some twenty feet of intestine which cancer does not, as a rule, affect. Cancer of the jejunum is very rare. Brodie said of cancer of the great intestine that it is never found higher than the sigmoid flexure. While, therefore, he (Sir William) would fully admit the constitutional predisposition of cancer, it would only be in an undifferentiated ovum. In a differentiated tissue this condition becomes a local one. If we could analyse the beginnings of cancer in a part, we could rid our patient of the disease in that part. Again, when one comes to talk of a blood-disease, one is lost in conjecture, especially if one explains it by gout. There is no proof that gout is a blood-disease, or typhoid fever a blood-disease. The blood may convey the disease, but if a man were all blood he would not have gout. Blood itself, without the elements, is a very indifferent fluid, and as such cannot present the morbid phenomena of disease. The whole question of constitution required reconsideration. He had seen a man die of hydrophobia who had been bitten thirteen years before. Where had the poison been lying? He believed, in the tissue bitten, and not in the blood, floating about for thirteen years. Therefore, Sir William thought that when we deal with malignant disease we must consider it as local then and there, however much its appearance may have been influenced by an inherited predisposition called "constitutional." He did not participate in Sir James Paget's hope that we may find a cure for cancer as we have done for syphilis. In regard to infection, it may be a matter of cell-change. We do not understand either a cell or the processes of tissue-change. He was surprised to hear Sir James Paget speaking of "hardness" of tumours. It is notorious that affections of bones are prone to spread. For his own part, Sir William would adhere to the opinion which he once expressed in the Clinical Society: that were he to become the victim of cancer, he hoped it would be in the retina; he should soon observe the defective vision, and have the eye removed.

Dr. William Squire remarked, in reply to Sir William Gull, that it is the characteristic of a general disease to affect particular localities, as is seen in scarlet fever and measles. With regard to the other great question raised—that of blood-disease—it seemed to be forgotten that half of the blood is outside the vessels, and an interchange constantly going on. This consideration merged many of the differences in the discussion.

Dr. J. F. Payne wished to suggest that the discussion could hardly be carried farther without a clearer understanding of the meaning of the terms employed. Neither "constitutional," nor "local," nor "cancer" had been used in the same sense by the different speakers. He believed one great element in the meaning of the word "constitution" was expressed when it was said that in an injury or change the general disposition of the body has a large share, and external causes but a small share. Yet there was an infinite gradation from one to the other. The term might be used in one sense to cover both acquired and inherited diseases—namely, that the subject of them will suffer differently from a healthy man from any injury which may happen to him. This explained what Mr. Simon said of the affinities of cancer with tubercle and syphilis. There are also other respects, and these purely anatomical, in which these diseases may be compared. But before touching on this point Dr. Payne wished to define what is meant by "cancer." Cancer had often been considered as something extremely destructive, but which could not be recognised until it had proved destructive; but it had afterwards come to be recognised before proving destructive, and an anatomical definition was then rendered necessary. This was not new. Abernethy made an attempt at the anatomical classification of tumours at the beginning of the century. Now, fortunately, with the anatomical definition there is associated a certain feature of growth. All are agreed that a growth is cancerous when it has begun to infiltrate neighbouring parts. There were of course difficulties in this definition. Now, infiltration has a very distinct anatomical meaning, and leads to an anatomical definition of cancer. It is this—that a growth beginning in one tissue has passed over to an adjacent but different one. Everyone says, for instance, that cancer has something of a glandular character. Dr. Payne believed that, anatomically speaking, no better definition of cancer could be given than this—that there is a kind of duality in its structure. This fact meant that when a growth has once bridged over the small but important interval between tissues of different kinds, it may go on indefinitely over the body. One expression of this is adhesion of the skin. Of this anatomical fact—this crossing over—several explanations had been given. First, as a mere matter of growth, as in epithelioma. Secondly, that the growth in one kind of tissue infects or causes a similar growth in another tissue; such was perhaps the opinion of Virchow and Mr. Simon. Thirdly, the theory of conjugation, which was exceedingly plausible but without much support. What support did anatomy give to these views? If we could detect anything by the microscope or the test-tube, and call it cancer, the task would be easy. This had nearly been done with tubercle. There was no doubt that the material is transmitted through the body in connexion with cells. If this be true, cancer being introduced from without, would deserve the name "constitutional," as syphilis and tubercle. At the same time it would be essentially local, being always attached to local growth. Thus it seemed to Dr Payne that cancer might bear both the terms "constitutional" and "local." Whether the material could exist in the body in a diffuse form was not at present known. In regard to inheritance, if there was any inherited condition it must be something not absolutely separable, but a property of tissue. In favour of this view was Sir James Paget's argument of the

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prevalence of cancer in female organs which early degenerate. Dr. Payne concluded by claiming more indulgence for histologists than they had received from some of the speakers in the present discussion.

Dr. Moxon moved the adjournment of the debate.

LEGAL INTELLIGENCE.

PLEA OF "MORAL" INSANITY.

The following trial is one of great importance in a medico-legal sense. We give it *in extenso*, as reported in the *Times* newspaper. The statement of the facts could not be abridged without diminishing the value of the report:—

On the Western Circuit, in the Crown Court, at Exeter, on March 14, before Mr. Justice Quain, Sylvanus Sweet, described in the calendar as a tanner, of good education, aged 28, was indicted for the wilful murder of his wife, Ann Elizabeth Sweet, at Plymouth, on January 28 last.

Mr. Cole, Q.C., and Mr. M'Kellar prosecuted; the prisoner was defended by Mr. Lopes, Q.C., and Mr. Charles.

The facts of this case, which were not disputed, were as follows:—That the prisoner had been married to the deceased woman in the year 1868, and that subsequently she took proceedings in the Divorce Court against him for a decree of nullity of marriage, which she failed to obtain. For some time after she lived apart from her husband, but lately they had again been living together in Clifton-street, Plymouth, and, according to undisputed evidence, on the most affectionate terms. On the afternoon of January 28 the prisoner asked his wife for some pomade, which she refused to give him, saying that if he used any of the nasty stuff he should not come near her. The servant, however, who heard this, said that the words were not spoken angrily. Shortly afterwards the prisoner sent the servant out to buy him some pomade. This was done without the knowledge of the deceased. When the servant came back in about a quarter of an hour, she found her mistress lying on the floor in a pool of blood, so much hacked about the head as to be almost beyond recognition. The prisoner had been seen a few minutes before the servant's return leaving the house in a hurried manner, and it was not disputed that the act had been done by the prisoner with a fearful weapon—half sword, half knife—which was produced at the trial. The medical evidence as to the cause of death was that there were ten wounds on the head, each of which had fractured the skull of the deceased, and that she died of her wounds about twenty-five minutes after they had been inflicted.

The defence was that the prisoner was at the time under the influence of epileptic *furor*, and was not responsible for, or even cognizant of, his acts. It was proved that early in the afternoon of this day in question a visit had been paid to the prisoner by his father-in-law, Mr. Watts, and a Mr. Hammett, who were accompanying Mr. Bates, M.P., then a candidate for the representation of Plymouth, on his canvass of the borough. Neither Mr. Bates nor Mr. Watts appear to have spoken much to the prisoner, but Mr. Hammett deposed to a strange reserve and an absent look in his eye, which led him to think that the prisoner was not in his right mind. It was proved that the prisoner was seen leaving the house after the murder, when he was pulling on his coat, and ran hastily to a cabstand, where he got into a cab, telling the driver to take him to the Guildhall at once. When the cab arrived at the Guildhall the prisoner rushed upstairs into the police-station, telling the cabman to fetch him a policeman. His hat had fallen off as he got out of the cab, but though the cabman offered it to him he did not take it, and he was shortly afterwards found on the stone floor of the police cell by a policeman. He cried very much and seemed in such a confused and rambling condition that one policeman at first thought he was drunk. He repeatedly said, both to the police and also to the divisional police surgeon, that his wife and Mr. Watts and Mr. Bates wanted to put him in an asylum, which was clearly a delusion, especially with respect to Mr. Bates; and one policeman added that the prisoner was evidently in fear that he would be put in confinement. About an hour after coming to the police-station the prisoner became more rational in his demeanour, and information having meanwhile been brought to the Guildhall that the murder had been committed, the inspector charged the prisoner, after cautioning him, with the wilful murder of his wife. He answered, "I did not kill my wife. Is she dead?" And the divisional surgeon, who saw him frequently, stated that though he never spoke to the prisoner on the subject, he should suppose from his general demeanour that he did not know anything about it.

A considerable amount of evidence was given on the subject of epileptic *furor* by several medical gentlemen who saw the prisoner at the time. They said that he had all the appearance of a person suffering from that form of *furor*, or delirium, and it was proved that in such patients there is a total suspension of intelligence and moral susceptibility; that when an attack is coming on the patient usually becomes very pale; that the attack is usually very sudden, and accompanied by acts of extreme violence, sometimes towards the patient himself, at other times towards any person who may be near him; and that in this case the fact that such a number of blows had been inflicted tended to show that the person inflicting them might have been suffering from such an attack of *furor*. It was also stated that after the attack was past the patient would be very likely to be entirely forgetful of what had happened during the fit.

The prisoner's brother was called, and proved that the prisoner had long been subject to such fits, and that an aunt of his had suffered in the same way.

Upon the close of the evidence for the prosecution, the learned Judge asked the jury whether they had formed an opinion as to the state of the prisoner at the time of committing the act charged against him.

Upon their replying that they were unanimously of opinion that he was suffering from epileptic *furor*, they were directed to return a verdict of "Not Guilty" on the ground of insanity, and the prisoner was directed to be detained until her Majesty's pleasure should be known.

IMPORTANT MEDICAL EVIDENCE.

At the Stafford Spring Assizes, last week, a point of some interest to the profession came before the judge. The most important witness in the case was an old lady, seventy-four years old, who seldom left the house, and was so nervous that when told that she would have to give evidence in the case she fell back into a chair and nearly fainted. The question was whether her deposition, which was of great importance, should be admitted in evidence on the testimony of the medical practitioner called to prove her inability to travel. The doctor was closely questioned by the learned judge as to the state of the witness's health, but could extract from him nothing more than that he did not think she could be got to the Court; that she was nervous and frightened, and would be pretty certain to faint. He admitted, however, that if she wished to go to London to consult some eminent medical man, he saw no reason why she should not bear the journey. On this evidence his Lordship seemed disposed to exclude the deposition, but ultimately, after consulting with Baron Cleasby, admitted it, subject to the opinion of the Court above.

MEDICAL NEWS.

King and Queen's College of Physicians in Ireland.—At the usual monthly examination meetings of the College, held on Tuesday, Wednesday, and Thursday, March 10, 11, and 12, the Licence to practise Medicine was granted to the following candidates:—

Bookey, David Brownrigg.	McSweeny, Joseph Patrick.
Emerson, Isaac Bomford.	Murray, Frederick Robert.
Flinn, David Edgar.	Murray, James.
Griffin, Thomas.	Russell, Arthur Willoughby.
Kennedy, Patrick.	Slevin, Patrick Joseph.

The Licence to practise Midwifery was granted to—

Bookey, David Brownrigg.	Murray, James.
Kennedy, Patrick.	Russell, Arthur Willoughby.
McSweeny, Joseph Patrick.	Slevin, Patrick Joseph.

Apothecaries' Hall.—The following gentleman passed his examination in the Science and Practice of Medicine, and received a Certificate to practise, on Thursday, March 19:—

Messiter, Matthew Arden, Repton, Derbyshire.

The following gentlemen also on the same day passed their primary professional examination:—

Rawlings, Alfred, Guy's Hospital.
Theed, William Caywood, Guy's Hospital.
Walker, Hyde Edwards, London Hospital.

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APPOINTMENTS.

*** The Editor will thank gentlemen to forward to the Publishing-office, as early as possible, information as to any new Appointments that take place.

BAKER, CHARLES EATON, M.R.C.S. Eng., L.R.C.P. Edin. — Medical Officer for the New Romney District of Romney Marsh Union.

DAGLISH, RICHARD ROTHWELL, M.R.C.S. Eng., L.S.A.—Medical Officer to the Workhouse, Romney Marsh Union.

GERVIS, HENRY, M.D. Lond., M.R.C.S. Eng., L.S.A. — Physician-Accoucheur to the Royal Maternity Charity, London.

HEBBLETHWAITE, J. E., M.D. St. And., M.R.C.S. Eng., L.S.A.—Re-appointed Medical Officer for the Scrooby District of East Retford Union, Notts.

HERBERT, JONAS TRAVERS, L.R.C.P. Edin., L.F.P.S. Glasg.—Medical Officer to the Markyate-street District of Luton Union, Beds.

KNOWLES, EDWARD, M.R.C.S. Eng., L.S.A.—Medical Officer for the Fifth District of Chesterton Union, Cambridgeshire.

MOLONY, PATRICK JOHN, M.B., M.S. Univ. Dub., L.M.K.Q.C.P.I.—Medical Officer for the Sixth District of Chesterton Union, Cambridgeshire.

PARKER, ROSSTON, M.B., F.R.C.S., Demonstrator of Physiology, Liverpool School of Medicine—Pathologist to the Liverpool Royal Infirmary, *vice* W. M. Banks, M.D., F.R.C.S. Eng., appointed Assistant-Surgeon.

PARSONS, GEORGE, A.B., M.B. Univ. Dub., L.R.C.S.I., and L.M.—Medical Officer and Public Vaccinator to the Hawkshead District of Ulverston Union.

ROPER, Dr. GEORGE.—Physician-Accoucheur to the Royal Maternity Charity, London.

WOOD, R. A. H., M.R.C.S. Eng., L.S.A.—Honorary Assistant-Surgeon to the Ladies' Charity and Lying-in Hospital, Liverpool.

MARRIAGE.

PALMER—MATTHEWS.—On March 21, at All Saints, Benhilton, Sutton, Surrey, F. J. Morton Palmer, L.R.C.P. Edin., L.M., M.R.C.S. Eng., L.S.A., of 363, Old Kent-road, only son of Dr. F. W. Palmer, of Ormonde House, Old Kent-road, to Clara Jane, second daughter of W. Matthews, Esq., Altyre House, Benhilton, Sutton, and of Spa-road, Bermondsey.

DEATHS.

ACKWORTH, EDWARD, M.D., at Elfinsward, Hayward's Heath, on March 17, aged 64.

BANTOCK, PERCY, youngest son of G. Granville Bantock, M.D., at 44, Cornwall-road, Westbourne-park, on March 20, aged 18 months.

BROWN, HENRY, L.S.A., at Mortlake, on March 24, aged 77.

CARYL, WILLIAM ASYLUM, M.R.C.S. Eng., at Old Charlton, on March 21, of apoplexy, aged 60.

DALTON, H. G., M.D., of Demerara, West Indies, suddenly, of apoplexy, in London, on February 28, aged 55.

DAVIS, JAMES, surgeon, at Ludlow House, Ampthill-square, on March 23, aged 83.

INGLIS, THOMAS, M.D., F.R.C.S. Edin., late of the Indian Army, Bengal Presidency, at Onslow House, Eastbourne, on March 21.

TETLEY, SARAH ANNE, wife of James Tetley, M.D., Belmont, Tor, Torquay, after a long illness, on March 16.

WINDER, JANE, widow of the late John Winder, M.R.C.S., at her residence, Clapham, on March 20, in her 72nd year.

WOODMAN, FREDERICK, M.D. St. And., L.R.C.P. Lond., M.R.C.S. Eng., at Bedford House, Deal, on March 15, aged 34.

VACANCIES.

In the following list the nature of the office vacant, the qualifications required in the Candidate, the person to whom application should be made, and the day of election (as far as known) are stated in succession.

BERKS COUNTY ASYLUM, MOULSFORD, WALLINGFORD.—Assistant Medical Officer. Candidates must be duly qualified. Applications, with testimonials, to Dr. R. B. Gilland, Medical Superintendent.

BOOTLE BOROUGH HOSPITAL.—House Surgeon. Candidates must possess both a medical and surgical qualification. Applications, with testimonials, to T. P. Dawson, Honorary Secretary, on or before April 20.

BRISTOL GENERAL HOSPITAL.—Physician. Candidates must be duly qualified. Applications, with testimonials, to the Secretary, Henry Fox, Esq., R.N.

CENTRAL LONDON OPHTHALMIC HOSPITAL, GRAY'S INN-ROAD, W.C.—Assistant-Surgeon. Candidates must be duly qualified. Applications, with testimonials, to the Secretary, on or before April 8.

HULL GENERAL INFIRMARY.—Honorary Physician. Applications, with testimonials, to the Chairman, at the Infirmary.

KILBURN DISPENSARY.—Senior Resident Medical Officer; also Assistant Resident Medical Officer. Candidates must be duly qualified. Applications, with testimonials, to the Honorary Secretary, 30, Boundary-road, Finchley-road, N., on or before April 6.

KING'S COLLEGE HOSPITAL.—Assistant-Physician, Pathological Registrar, and Curator of the Anatomical Museum. For particulars apply to J. W. Cunningham, Esq., King's College, Strand.

KING'S COLLEGE HOSPITAL.—Assistant Dental Surgeon. For particulars apply to J. W. Cunningham, Esq., Secretary, King's College, Strand.

LANCASTER COUNTY ASYLUM.—Assistant Medical Officer. Applications, with testimonials, to the Superintendent.

LUNESDALE UNION.—Medical Officer. Applications, with testimonials, to Mr. R. Stephenson, Hornby, near Lancaster, on or before April 21.

MIDDLESEX HOSPITAL.—Assistant-Physician, Assistant Obstetric Physician, and Dental Surgeon. Applications, with testimonials, to the Weekly Board, on or before March 31.

NORTH LONDON CONSUMPTION HOSPITAL, HAMPSTEAD.—Candidates must be F. or M.R.C.P. and graduates of a university (or qualify within twelve months). Applications, with testimonials, to the Secretary, Mr. W. Hornibrook, at the offices, 216, Tottenham Court-road, W., on or before April 15.

UNION AND PAROCHIAL MEDICAL SERVICE.

*** The area of each district is stated in acres. The population is computed according to the census of 1871.

RESIGNATIONS.

Knaresborough Union.—Mr. Henry R. Wright has resigned the Knaresborough District; area 7380; population 5282; salary £55 per annum.

St. Saviour's Union.—The Eighth District is vacant; salary £130 per annum.

APPOINTMENTS.

Bingham Union.—Alfred C. Taylor, M.R.C.S. Eng., B.M. and M.C. Univ. Aber., to the South District.

Bourn Union.—James H. Ashworth, L.R.C.P. Edin., L.F.P.&S. Glasg., L.S.A., to the Bourn District and the Workhouse.

Bridgwater Union.—Evan Evans, M.R.C.S. Eng., L.S.A., to the Eighth District.

Cambridgeshire.—Mr. Richard Apjohn as Analyst.

Grantham Union.—Charles T. Heaven, M.R.C.S. Eng., L.S.A., to the Colsterworth District.

Lichfield Union.—Herbert M. Morgan, L.R.C.P. Lond., M.R.C.S. Eng., to the St. Chad District and the Workhouse.

St. Mary Abbott's (Kensington) Parish.—Mr. Edward L. Cleaver as Analyst.

Trowbridge Union.—John H. Boughton, M.R.C.S. Eng., to the Forthampton District.

DR. OSBORN has been re-elected Medical Officer of Health for the City of Southampton at a salary of £250 per annum; and Dr. Bencraft has been appointed Port Sanitary Officer.

MR. MACAULAY, of Langholm, has been presented with a handsome carriage and horse with silver-mounted harness, by the coal-miners of Rowanburn. The ceremony took place in public in the presence of a large number of miners and their wives and families, and many friends. In returning thanks Mr. Macaulay said it was the third presentation from the people of Canonbie to him within twelve years.

IRELAND: THE VICEREGAL HOUSEHOLD.—The following appointments to the Household of his Grace the Duke of Abercorn, K.G., Lord Lieutenant of Ireland, have been made:—Physician-in-Ordinary, G. W. Hatchell, M.D., F.R.C.S.I.; Surgeon-in-Ordinary, Philip Crampton Smyley, M.D., F.R.C.S.I.; Physician to the Household, W. M. Burke, F.K.Q.C.P.; Surgeon to the Household, James Stannus Hughes, M.D., F.R.C.S.I.

PROFESSOR FLOWER, F.R.S.—The many friends of this gentleman, who is now travelling in the East, will be glad to know that in a long and interesting letter addressed to a colleague from Esneh on the Nile, and bearing date February 28, he writes most hopefully of the future:—"I am pleased to be able to give you a corresponding good report of myself, for this Nile voyage has perfectly answered all that we expected of it, and I am, I trust, now laying in a stock of sunshine and fresh air to last through many a winter's frost and fog in Lincoln's-inn-fields. This is a wonderful climate; every day the same clear blue sky, bright sun, and generally kept cool by a refreshing north breeze. Rain is almost unheard of in these regions; we have not seen any for more than a month, and that was lower down the river. I cannot think how anyone who has to spend a winter abroad can hesitate about where to go, if the Nile is practicable. I don't believe there is any place in the world equal to it, for climate, for beautiful scenery, for splendid historical ruins, its healthiness of living, and for everything that people with plenty of time generally seek for. For anyone who wants a thorough change from the bustle, worry, and fatigue of a London life it is perfection. I have been looking out to get some things for the Museum, especially some skulls of those wonderful old people who built the Pyramids and the Grand Temple of Thebes. They must have been a marvellous race to have reached to such a height of civilisation, mechanical skill, and decorative art as shown in the solidity and beauty of their buildings, when all the rest of the world were in barbarism."

THERE will be an election at Worcester College, Oxford, in June, to three Scholarships, one of which will be in Natural Science. Particulars can be had on application to the Senior Tutor. At the same time there will be an election at Magdalen College to not less than four Demyships and one Exhibition. Of the Demyships, one at least will be Mathematical, and one at least in Natural Science; the Exhibition will be in Mathematics. The stipend of the Demyships is £95 per annum, and of the Exhibition £75, tenable for five years. For particulars apply to the Senior Tutor.

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THERE were registered in London last week 1611 deaths, which shows seventy-two below the average. There were seventy-four deaths from measles.

SCARLET FEVER is still fatally prevalent in Newcastle-upon-Tyne and Leeds, and small-pox has caused 100 deaths in Birmingham during the past eleven weeks.

AN outbreak of some virulence of typhoid fever at the west-end of Greenock is causing some alarm to the inhabitants. It is reported that all the families afflicted are found to be supplied with milk from the same farm.

THE Admiralty have sanctioned the following additions being made to the medical comforts supplied to sea-going vessels, viz.:—Preserved carrots, 4 oz. for every individual of the complement of all rates; also a certain proportion of egg-powder, in quantities ranging from 10 lbs. for first-rates to 3 lbs. for gunboats, &c. For vessels proceeding to the West Coast of Africa, East Indies, and China, double these quantities is to be supplied.

HEALTH AND MORTALITY OF IRELAND.—During the quarter ended December 31 last there were registered in the 791 registrars' districts in Ireland 21,558 deaths, representing an annual mortality of 16·2 per 1000. The reports from the registrars show the general public health in Ireland to have been good; but, owing to the prevalence and fatality of scarlet fever in many districts, especially in the province of Munster, the deaths from preventable diseases were somewhat in excess of those registered during the previous quarter.

YORK LUNATIC ASYLUM.—On January 1, 1873, there were resident in the Asylum 182 patients, of whom 99 were males and 83 females. There have since been admitted 16 males and 22 females, and the total number of patients under treatment during the year has, therefore, been 220. Of these 26 have been discharged, and 10 have died, leaving 184 at present under care and treatment. The average number resident has been 184; one less than last, and one more than any other previous year. The number of recoveries, which was 17, bore the proportion to the admissions of 44·73 per cent., and made the average of recoveries for the last five years 52·7 per cent. The deaths were 10 in number, or at the rate of 5·43 per cent. of the average numbers resident, making the average for the last five years 5·6 per cent.

HEALTH AND MORTALITY IN SHEFFIELD.—Dr. Griffiths, Medical Officer of Health for the borough of Sheffield, in his first annual report shows that there were, in 1873, 6558 deaths in the borough, and the death-rate was 26·61 per 1000. Of the mortality amongst infants, it appears that out of every 100 children born alive in Sheffield, 29·3 per cent., on an average of three years, die before they are one year old. In healthy districts the death-rate from all causes is 12 per cent. Dr. Griffiths adds that, in periods of increasing trade and the development of either new or existing branches of manufacture, Sheffield has its population continually increased by the influx of adults of an age when child-bearing may occur and infant mortality speedily follow. Thus there are *naturally* more births and even more deaths *relatively* in urban than in rural districts. Since 1871 there has been a decrease of rather more than 2·2 per cent.

PARIS MEDICAL PRACTITIONERS of 1874.—According to the *Almanach de Médecine* for 1874, there are in Paris 1634 doctors and 322 *officiers de santé*, a total of 1956 practitioners. These divided among the 1,794,380 inhabitants give one practitioner per 923 inhabitants. Out of these 923 what is the mean number of patients; and of this mean how many are treated in hospitals and dispensaries? How many paying patients remain? Oh! young *confrères*, who so imprudently increase the number of practitioners every year, meditate well on these figures. Of the 1956 practitioners the enormous number of 605—*i.e.*, many more than a third—are *decorés*. Thus, of the doctors 2 are Grand Officers of the Legion of Honour, 21 Commanders, 106 Officers, and 420 Chevaliers; there are also 40 who have foreign orders, but do not belong to the Legion. Of the *officiers de santé*, 10 are Chevaliers of the Legion of Honour, and 6 have foreign orders.—*Union Méd.*, March 17.

THE PARIS FACULTY OF MEDICINE.—The following is the programme of the lectures to be delivered during the summer semester, commencing March 16:—Medical Natural History, M. Baillon; Physiology, M. Béclard; Pathological Anatomy, M. Charcot; Surgical Pathology, M. Trélat; Legal Medicine, M. Tardieu; Pharmacology, M. Regnauld; Accouchements and the Diseases of Women and Children, M. Guéniot, as a substitute for M. Pajot; Experimental and Comparative Pathology (Functions of Nutrition), M. Vulpian; Medical Pathology (Diseases of the Nervous System), M. Hardy; Hygiene, M. Bouchardat; Therapeutics and Materia Medica, M. Gubler. Each of the above courses of lectures is to be given three times a week. Medical, Surgical, and Obstetrical Clinical Lectures are to be delivered daily at the Hôtel-Dieu, Charité, Pitié, and Hôpital des Cliniques. M. Roger will lecture three times a week at the Hôpital des Enfants, M. Panas twice a week on Ophthalmology at the Lariboisière, M. Fournier once a week on Syphilitic Diseases at the Louvoine, and M. Gauthier three times a week on Medical Chemistry.

NOTES, QUERIES, AND REPLIES.

He that questioneth much shall learn much.—*Bacon.*

Mr. E. Elphick, Adelaide.—Letter, with enclosure, received.

V. W.—1. Yes. 2. On April 17 last.

Septimus should apply to the Clerk of Apothecaries' Hall.

N. P.—Surgeon-General Sir William Muir, K.C.B., was principal medical officer of the China expeditionary force under Sir Hope Grant in 1860.

A. A. D.—The Deaf and Dumb Asylum, Old Kent-road, was founded in 1792.

J. W., M.D.—*Journal of the Institute of Actuaries*, No. 83, April, 1871, p. 187, "On the Rate of Mortality amongst the Natives compared with that of Europeans in India," by Samuel Brown, F.I.A.

Mrs. G. M. is referred to the Ladies' Sanitary Association in Aberdeen.

A Pupil.—"The Proper Treatment of Children," by Dr. Charles E. Buckingham, of Boston, read before the Massachusetts Medical Society, June 4, 1873.

Ego.—The verbal understandings subsequent to the written agreement should be set aside, and the agreement abided by.

A Member.—The title is one of courtesy only.

Centenarians.—Mr. Thoms, in the *Times* of Tuesday last, records two well-authenticated cases of centenarism—one where a gentleman died aged upwards of 102 years, and the other of a lady upwards of 101 years. In the obituary of the same paper there were recorded the deaths of two persons at eighty, two at eighty-two, eighty-three, eighty-seven, and ninety years of age.

An Old Fellow of the College.—We believe the Prince of Wales has visited the College of Physicians more than once, but not the sister college in Lincoln's-inn-fields. The museum of the latter was visited in July, 1847, by the Prince Consort accompanied by the Duke of Saxe-Weimar.

Associate, King's College.—Sir William Fergusson was born on March 20, 1808. Sir George Burrows is his senior by six years.

Biographist.—Lawrence's Hunterian Oration, so hard on the general practitioner, was delivered February, 1846; our leaders on the subject will be found in the *Medical Times and Gazette*, vol. xiii., p. 419 *et seq.*

A Student, Guy's Hospital.—The registration at the College of Surgeons will be brought to a close on Tuesday, the 31st inst.

AN APPEAL.

TO THE EDITOR OF THE MEDICAL TIMES AND GAZETTE.

SIR,—After sixteen years' service as medical officer in the Barnstaple Union, a fresh election took place at the end of the year without giving me any notice whatever, although under contract I was entitled to two months notice. Consequently I applied to the Board for a superannuation under the Act passed in 1870 by a large majority of 101. Being seventy-three years of age, and labouring under disability (and giving a medical certificate to that effect), the guardians at their weekly meeting about six weeks since proposed granting me an annual allowance of two-thirds of my yearly salary, whilst others proposed one-third—viz., £20 per annum, the salary being £60. The latter was carried by a majority of five. However, after this it was necessary to give one month's notice in writing to every guardian (to confirm it). At the end of the month, in a most extraordinary manner, they put it to the vote again, and thirteen voted for, and seventeen against; whereby I lost what before had legally been proclaimed by four. If you will kindly lay this statement before the profession and the public,—as having no funds to fall back on for future support makes my case the more sad,—contributions will be thankfully received by the Rev. John Russell, the vicar, and Pyke Nott, Esq., Bydown House, Swymbridge, Barnstaple, North Devon.

I am, &c.,
JOHN HAWKES JACKMAN.
Swymbridge, Barnstaple, North Devon, March 18.

Cocoa.—Yes; an elaborate and most interesting paper on the manufacture of cocoa was read at the Society of Arts by Mr. John Holm, F.R.C.S. Edin. (a member of the well-known firm of Dunn and Hewett). It dealt mainly with the subject of prepared cocoa. The mode of preparing cocoa may be said to consist in the addition of starch, sugar, or some similar substance to it, so as to neutralise in some degree the effects of the butter or oil of the cocoa. Messrs. Cadbury, on the other hand remove the excess of this oil in the preparation of their well-known essence.

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Indian Experience.

In the "Doctor's Log," written on first arrival in India, a hurried imperfect account was given of the journey from Portsmouth to Deolalee. Taking up the pen after an interval of a year, everything formerly curious is now common-place; it is not so easy to describe scenes and events. The thousands who will traverse over the same ground, proceeding up country, might like to know how we proceeded, therefore the parable is taken up again. At Deolalee, the medical officer, pestering the Circumlocution Office, "wanting to know," may or may not find a Tite Barnacle disinclined to afford information. Like the importunate widow, the traveller must worry until supplied with forms, a packet of medicine, certain clothing, and also a medical subordinate to take charge of these things. Starting at night, halting at a rest-camp during the day, either in tents or barracks, the medical officer will daily have to send duplicate returns to the principal medical officer at Bombay, until Allahabad, the boundary, is reached. When sending farewell documents to Bombay, a new set have to be made out for Bengal. Mind to have extra room in the carriage next to your own, so as to have a hospital where any sick man, woman, or child can lie at full length. The train being a special one, as a rule nothing can be procured at the dark stations; so a small cooking lamp to heat boiling water to make tea, coffee, or whisky-toddy, to heat beef-tea, or to make a poultice, will be handy. One night an alarm was raised; the train stopped at a station whilst a woman roaring with cramp and diarrhœa had to be lifted out. All this time the guard tearing his hair, anxious to whistle; another train behind; the nigger porter with great delight ringing the bell. The engine suddenly starting, I jumped on to the ledge of a carriage, and a brandy-bottle in a cloak-pocket was dashed against a projecting iron pump—a very near thing. Sometimes the drop on to the ground is lower than expected; so to save your neck and limbs mind the lantern. Do not be imposed upon. If lying down accommodation is required for those unable all night to sit bolt upright or find room on the floor, insist upon it. If the carriages are badly lighted with oil that illuminates only for a few minutes, the remainder of the night spent in total darkness, pretend to be a director or a brother of the superintending engineer, who in a quintuplicate half-margin emergent indent will be informed of this. From the splendid saloon carriage fitted up with drawing-room, bedroom, kitchen, coach-house, etc., allotted to the superintending engineer, he must be a functionary of terrific importance. If the carriages are locked, claim a key; if small or dirty, object to take them, unless driven into a corner. See that the men are warmly clad, each wearing the belt provided; also, encourage the taking of cold tea in the water-bottles. As a rule, it is of no use speaking to men—at all events, to new arrivals,—who in rest-camps eat, drink, and smoke injudiciously. Some complain of troopship rations being insufficient; and the sea-air inducing hunger, even the best fed are ravenous on landing. The old soldiers are the drunkards who entice the black sheep amongst the recruits to sell their necessaries to procure rum. You can get plenty of liquor everywhere, in spite of most rigid restrictions, so long as the money is forthcoming. Loitering about rest-camps exposes the men to the chance of contracting syphilis, and that disease annually becoming worse—namely, enteric fever. How on earth can men be protected from the chance of drinking polluted water or breathing a poisoned atmosphere, if we are to believe the reports of sanitary commissioners? The trains generally leave in the evening, sometimes reaching the halting-place in the dark—as a rule, in broad daylight. At the station there will be officials provided with conveyances for the sick, to show the way to the tents or barracks constituting the rest-camp. The commissariat have the rations ready; the men, taking their bedding, remain a few hours, perhaps several days, then go on again. There is at each camp a medical officer, and if there is anything of interest, or you want to go out shooting, ask him to do *locum tenens*. At Allahabad there are fine barracks, a large station, handsome houses, an interesting fort—all worth seeing. Arriving there on Sunday, I went to church: a very fashionable place, such beauty and fashion, such fine carriages *outside*—so many pretty girls handsomely dressed, and substantial city-looking magnates *inside*,—all confessing to be miserable sinners. It was All Saints' and St. Andrew's Well-street combined. At Jubbulpore—a few miles out, rather—are the waterfalls of the Nerbudda: nothing very much until, taking a boat, you pass a little island covered with martens' nests, thousands of them. Also hornets abound; they stung a bather to death once. The stream narrowing, you row into a channel with cliffs about thirty feet high on each side, and these cliffs are the celebrated rocks of white marble, somewhat glaring in the sun, but exquisitely lovely in the moonlight. The crocodiles in the deep stream, the monkeys playing their antics on the high banks, the soothing sound of the neighbouring waterfall, all very pleasant and memorable. Excepting these two places, Jubbulpore and Allahabad, from Bombay 1000 miles up country by rail there is nothing to see, and, looking out of window in the early morning, the Isle of Dogs is beautiful in comparison; the iron road dreary in the extreme. It appears we are indebted to a doctor (afterwards knighted) for the blessing of telegraphy, which at an estimated cost of £35 a mile was introduced by Sir W. O'Shaughnessy. We look at the posts, the signals, the railway-stations, the bridges and viaducts; hear the bell and the whistle and the puff, puff of the engine; we pay exorbitantly for bad soup, bony chicken, or mouldy sandwiches; and then we bid good-bye to civilisation as a rule. One mud-built city relieved by ugly tombs or temples crumbling to decay never differs from another. In addition to sweethearts, wives, and creditors, we have left in England the rich parks and lordly manors, the ivy-covered abbeys and grand cathedrals, the pretty cottage and the thriving farm. In exile, one thinks fondly of Bond-street, the opera in the season, and of the happy hours spent in picture-galleries. Let us talk of something else—for instance, to advise the Griffin not to leave sick behind if possible at these rest-camps. Keep a rough diary, and for your own comfort and peace of mind study the nature, phases, wording, number, and channels connected with returns. For Heaven's sake cross your t's and dot your i's and mind your decimals, otherwise life will become a burden. If anybody dies or infectious disease breaks out, or what not occurs on the road, use common sense instead of alarming the whole country; put your shoulder to the wheel instead of blubbering in the ditch. It appears that besides elephants, tigers, snakes, and alligators, the fretful porcupine wanders to his destruction on the railway, and the white ants feeding on the sleepers are intensely disgusted by the noise and oscillation. An engine-driver receives from £18 to £20 a month; neither he, the guard, nor other officials signed the protest against alcohol. The native pointsmen are very stupid, the trains fortunately few—on a single line. I had written thus far when the sad news arrived that Dr. Webb, the editor of the *Medical Times and Gazette*, had been called away from his post, and his clever pen never more will delight us. It is only natural for every man who has once had the pleasure and privilege of writing in a journal to take an interest in *that* journal, and most respectfully to tender sympathy with those who have so eloquently testified to the loss sustained.

How shall Young Ladies be Flogged?

TO THE EDITOR OF THE MEDICAL TIMES AND GAZETTE.

Sir,—"A Country Physician," writing from Dublin—above all other places where true gallantry exists, if anywhere,—dares to put such a question to you, an English journalist! Now, as an outraged British matron, I should like to show how *he* should be flogged. My husband, one of your oldest subscribers, suggests "urtication," or stinging with nettles, as likely to "wake him up" to the enormity of the question he puts to you. Of the many things so mildly suggested by a "Country Physician"—as the birch, leather strap, ruler, cane, and lastly the horse-whip,—I should like to see the latter well laid about his back. I am, &c.,

Clapham-road, S.W. Theresa Madeline Stanley.

*** We have also received the following replies to the queries of "A Country Physician" (Dublin):—

1. "The delicacy of feeling that leads the principal of the 'good ladies' school' to whip on the gloved hands is admirable—only I would suggest that the physician to the school should carefully attend to the thickness and texture of the gloves. Also, that the birch, for which he has a theoretical preference, should be applied outside the clothes; all danger of a scar would then be avoided.(a)—(Solomon.)"

2. "The principal has apparently not mentioned to her medical adviser one instrument of corporal punishment of the use of which we have heard—the slipper or lady's shoe; it has at least the merit of readiness. The 'Country Physician' objects to the ruler, but does not mention the 'Home Ruler.' Now, we have lately been assured that Home Rulers are equally innocent and effective against discontent and insubordination. Can he tell us anything about them?—(Anxious Mother.)"

3. "It is said, and believed, that there are good schools—in this country at least—in which discipline and obedience are perfectly maintained without long impositions, confinement, rulers, canes, birches, leather straps, or riding-rods! But if this cannot be in the land from which 'A Country Physician' writes, it is some satisfaction to note that both he and the 'principal' are not far from the right way of thinking on one fundamental principle of education. Why, indeed, should not girls be flogged as well as boys, or better? In this, as in all other things, let us be true to—Equalisation of the Sexes."

4. "In the monastic orders of both sexes, flagellation became a refined art, and was of two kinds, the upper and the lower, the former inflicted on the shoulders, the lower chiefly resorted to when females were to be fustigated. This mode was adopted, according to their assertions, from the accidents that might have happened in the upper flagellation. Let your correspondent beware how he recommends the upper or shoulder flagellation, as besides the injury to what Burns describes as 'the full ripe hoosm, exquisitely white,' it is said to injure the eyesight, and it was from fear of this that the lower discipline was generally adopted amongst nuns and female penitents. We are told that the monks of Fonte Avellana decreed that thirty psalms, said or sung, with an accompaniment of one hundred stripes to each psalm, would be considered as a set-off for one year of purgatory.—(Flagellant.)"

Poisonous Fish.—How the conger-eel (*Muræna major*) got into the long list of poisonous fish we cannot say. At Jersey and elsewhere they are largely consumed; and when the late Mr. Jones, of Jersey, read his paper on excision of the scapula at the Royal Medical and Chirurgical Society, exhibiting at the same time the girl from whom it was removed, he with characteristic modesty attributed the recovery of his patient to the excellent conger-eel soup on which she was fed in the hospital. Dr. Dancer should therefore have excluded it from the list of poisonous fishes In Abyssinia, fever patients are tied down on a table, and a species of torpedo or electric eel applied to various parts of the body as an infallible remedy.

The late Mr. Wormald.—The widow of this gentleman, of whom a biographical notice appeared in the *Medical Times and Gazette* of January 10, ever mindful of the great interest he took in the College of Surgeons, has just presented to the Museum of the College an interesting collection of surgical instruments, including those of the renowned Abernethy, exhibited by him at the International Exhibition; also a small collection of calculi, and the skeleton of the murderer John Thurtell, simply sent as that of a fine male adult. The College has no "Chamber of Horrors," but curiously enough has the nucleus of one in the skull of Eugene Aram and the skeleton of the notorious Jonathan Wild.

Indophilus says: "Some of the earliest reports on the subject of Guinea-worm are those by Mr. Bird and Dr. Smyttan, in the first volume of the *Medical and Physical Transactions of Calcutta*, 1825. They affirm the 'seasonal' habits of the parasite, and that a man who is affected with a mature worm must have received the embryo months before. New recruits who join their regiments in India do not suffer; it is men in their second or some subsequent season. See also Chisholm, *Edinburgh Medical and Surgical Journal*, April, 1815. A Dr. Myone entertained the curious idea that Guinea-worms were nothing but portions of lymphatic vessels, which had inflamed, become thick, then sloughed and formed abscesses."

The *Mudar* is the dried root of the *Asclepias* or *Calotropis gigantea*, and has some reputation as an "alterative," whatever that term means. It has been given in skin disease, leprosy, snake-bite, and tertiary syphilis. It has been introduced into England, but its reputation, we believe, is nowhere increased upon trial.

(a) The "medical officer" would of course attend at all punishment parades.

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A Student.—If you had read our advertising columns you would have seen that *primary* examinations take place on the 4th and 25th proximo.

COMMUNICATIONS have been received from—

Dr. FAYRER, London; Mr. HAYNES WALTON, London; Messrs. CADBURY BROS., Birmingham; Mr. WALTER W. REEVES, London; Mr. RUSHTON PARKER, Liverpool; Mr. J. E. BENHAM, London; Dr. PARSONS, Hawkshead; A MEMBER; Mr. J. BIRKETT, London; Mr. TIBBITS, Bristol; Mr. W. BATHURST WOODMAN, London; Mr. J. W. HULKE, London; Dr. C. HANDFIELD JONES, London; Dr. J. C. L. CARSON; Mr. J. CHATTO, London; Mr. R. WOOD, Liverpool; Mr. F. BARLOW, Chesterton; Mr. J. SEABROOK, London; Dr. GERVIS, London; Mr. W. TALLACK, London; Mr. EASTES, London.

BOOKS RECEIVED—

Allen's Aural Catarrh and Curable Deafness, second edition—Practical Medicine, being the fourth edition of Meade's Manual for Students, by Alexander Silver, M.A., M.D.—Liddle's Report on the Sanitary Condition of the Whitechapel District of the Board of Works—Russell's Mortality Tables of the City of Glasgow—Report of the Committee of Visitors of the Hereford City and County Lunatic Asylum—Tests adapted to Determine the Truth of Supernatural Phenomena, by George Harris, F.S.A.—The Report to the Barnsley Corporation by Dr. Sadler, Medical Officer of Health—Russell's Annual Report on the Health of the City of Glasgow—Some Contributions to Operative Surgery, by J. C. Hutchinson, M.D.—Reports of the Medical Officer of Health for Birkenhead, on the Removal and Disposal of Town Refuse—Die Sensibilitäts-Verhältnisse der Haut, von Dr. M. Bernhardt—Report of the Medical Officer of Health to the Gloucester Union of Sanitary Authorities—Intorno l'Efficacia Particolarmente Anticolerica del Solfuro Nero di Mercurio detto Comunemente Etiope Minerale, per dal Dottore Socrate Cadet—Report of the Association of Certifying Medical Officers of Great Britain and Ireland—Sands on Naso-Pharyngeal Polypi—Holden on the Sphygmograph.

PERIODICALS AND NEWSPAPERS RECEIVED—

Lancet—British Medical Journal—Medical Press and Circular—London Medical Record—Nature—Pharmaceutical Journal—Allgemeine Wiener Medizinische Zeitung—Berliner Klinische Wochenschrift—La Tribune Médicale—La France Médicale—Gazette des Hôpitaux—Le Progrès Médical—Gazette Médicale—Bulletin de l'Académie de Médecine—Southampton Times—Hampshire Advertiser—Gazette Hebdomadaire—Australian Medical and Surgical Review—Leisure Hour—Sunday at Home.

APPOINTMENTS FOR THE WEEK.

March 28. *Saturday* (*this day*).

Operations at St. Bartholomew's, 1½ p.m.; King's College, 2 p.m.; Charing-cross, 2 p.m.; Royal Free, 9 a.m. and 2 p.m.; Hospital for Women, 2½ a.m.; Royal London Ophthalmic, 11 a.m.; Royal Westminster Ophthalmic, 1½ p.m.; St. Thomas's, 9½ a.m.

ROYAL INSTITUTION, 3 p.m. Mr. C. T. Newton (Keeper of Greek and Roman Antiquities, British Museum), "On Mr. Wood's Discoveries at Ephesus."

30. *Monday.*

Operations at the Metropolitan Free, 2 p.m.; St. Mark's Hospital for Diseases of the Rectum, 2 p.m.; St. Peter's Hospital for Stone, 3 p.m.; Royal London Ophthalmic, 11 a.m.; Royal Westminster Ophthalmic, 1½ p.m.

MEDICAL SOCIETY OF LONDON, 8 p.m. Dr. Brunton, "On the Therapeutic Use of Aconite, with Illustrative Cases." Mr. Braine will exhibit a new Foot Regulator and Nitrous Oxide Economiser.

31. *Tuesday.*

Operations at Guy's, 1½ p.m.; Westminster, 2 p.m.; National Orthopædic, Great Portland-street, 2 p.m.; Royal London Ophthalmic, 11 a.m.; Royal Westminster Ophthalmic, 1½ p.m.; West London, 3 p.m.

April 1. *Wednesday.*

Operations at University College, 2 p.m.; St. Mary's, 1½ p.m.; Middlesex, 1 p.m.; London, 2 p.m.; St. Bartholomew's, 1½ p.m.; Great Northern, 2 p.m.; St. Thomas's, 1½ p.m.; Samaritan, 2½ p.m.; King's College (by Mr. Wood), 2 p.m.; Royal London Ophthalmic, 11 a.m.; Royal Westminster Ophthalmic, 1½ p.m.

ROYAL MICROSCOPICAL SOCIETY, 8 p.m. Meeting.

OBSTETRICAL SOCIETY, 8 p.m. Discussion on Dr. Playfair's paper, "On Puerperal Thrombosis." Dr. Copeman (of Norwich), "On Consultation Midwifery in Private Practice." Dr. Saboia, "On a New Operation for Atresia Uteri." And other communications.

2. *Thursday.*

Operations at St. George's, 1 p.m.; Central London Ophthalmic, 1 p.m.; Royal Orthopædic, 2 p.m.; University College, 2 p.m.; Royal London Ophthalmic, 11 a.m.; Royal Westminster Ophthalmic, 1½ p.m.

HARVEIAN SOCIETY, (Meeting of Council, 7½ p.m.), 8 p.m. Dr. R. Farquharson, "On the Effects of Continued Physical Exertion on the Heart and Large Vessels."

3. *Friday.*

Operations at Central London Ophthalmic, 2 p.m.; Royal London Ophthalmic, 11 a.m.; South London Ophthalmic, 2 p.m.; Royal Westminster Ophthalmic, 1½ p.m.; St. George's (ophthalmic operations), 1½ p.m.

VITAL STATISTICS OF LONDON.

Week ending Saturday, March 21.

BIRTHS.

Births of Boys, 1310; Girls, 1298; Total, 2608.
Average of 10 corresponding years 1864-73, 2286·2.

DEATHS.

	Males.	Females.	Total.
Deaths during the week	844	767	1611
Average of the ten years 1864-73	778·4	751·2	1529·6
Average corrected to increased population	...	...	1633
Deaths of people aged 80 and upwards	...	...	63

DEATHS IN SUB-DISTRICTS FROM EPIDEMICS.

	Population, 1871.	Small-pox.	Measles.	Scarlet Fever.	Diphtheria.	Whooping-cough.	Typhus.	Enteric (or Typhoid) Fever.	Simple continued Fever.	Diarrhœa.
West	561359	...	11	2	...	6	...	1	...	4
North	751729	1	16	1	5	14	...	1	2	6
Central ...	334369	...	6	...	...	8	...	3	...	1
East	639111	1	12	4	1	15	2	2	3	1
South	967692	2	19	4	3	18	1	5	...	1
Total	3254260	4	64	11	9	61	3	12	5	13

METEOROLOGY.

From Observations at the Greenwich Observatory.

Mean height of barometer	29·975 in.
Mean temperature	46·5°
Highest point of thermometer	58·0°
Lowest point of thermometer	34·3°
Mean dew-point temperature	40·4°
General direction of wind	W.S.W. & N.W.
Whole amount of rain in the week	0·09 in.

BIRTHS and DEATHS Registered and METEOROLOGY during the Week ending Saturday, March 21, 1874, in the following large Towns:—

Boroughs, etc. (Municipal boundaries for all except London.)	Estimated Population to middle of the year 1874.*	Persons to an Acre. (1874.)	Births Registered during the week ending Mar. 21.	Deaths Registered during the week ending Mar. 21.	Temperature of Air (Fahr.) Highest during the Week.	Lowest during the Week.	Weekly Mean of Mean Daily Values.	Temp. of Air (Cent.) Weekly Mean of Mean Daily Values.	Rain Fall. In Inches.	In Centimetres.
London	3400701	45·1	2668	1611	58·0	34·3	46·5	8·05	0·09	0·23
Portsmouth ...	120436	26·8	65	64	...	33·2	...	...	0·04	0·10
Norwich	82257	11·0	60	33	56·5	31·0	44·2	6·78	0·13	0·33
Bristol	192889	43·3	143	95	...	...	...	...	...	...
Wolverhampton ...	70896	20·9	51	29	55·7	36·9	46·3	7·94	0·15	0·38
Birmingham ...	360892	43·0	317	162	56·0	37·6	47·0	8·33	0·28	0·71
Leicester	106202	33·2	85	53	56·8	35·0	46·6	8·11	0·32	0·81
Nottingham ...	90894	45·5	53	34	57·6	33·7	46·1	7·83	0·32	0·81
Liverpool	510640	98·0	394	280	56·7	39·0	47·1	8·39	0·31	0·79
Manchester ...	355339	82·8	324	228	57·8	33·5	46·7	8·16	1·04	2·64
Salford	133068	25·7	114	75	56·6	33·0	45·6	7·55	0·84	2·13
Oldham	86281	18·5	62	42	51·5	...	...	...	1·37	3·48
Bradford	163056	22·6	125	63	55·0	37·8	46·3	7·94	0·46	1·17
Leeds	278798	12·9	238	158	56·0	36·0	46·6	8·11	0·22	0·56
Sheffield	261029	13·3	190	115	56·5	34·7	46·7	8·16	0·38	0·97
Hull	130996	36·0	127	53	57·0	31·0	45·6	7·55	0·17	0·43
Sunderland ...	104378	31·6	119	56	...	...	...	...	...	...
Newcastle-on-Tyne	135437	25·2	91	81	56·0	39·0	46·2	7·89	0·20	0·51
Edinburgh	211691	47·8	123	116	...	...	...	...	...	...
Glasgow	508109	100·4	353	301	53·4	35·0	45·3	7·39	1·46	3·71
Dublin	314666	31·3	176	170	57·0	33·3	48·3	9·05	0·21	0·53
Total of 21 Towns in United Kingdm	7618655	36·6	5818	3819	58·0	31·0	46·3	7·94	0·44	1·12

At the Royal Observatory, Greenwich, the mean reading of the barometer last week was 29·98 in. The highest was 30·21 in. at the beginning of the week, and the lowest 29·64 in. on Thursday afternoon.

* The figures for the English and Scottish towns are the numbers enumerated in April, 1871, raised to the middle of 1874 by the addition of three years and a quarter's increase, calculated on the rate which prevailed between 1861 and 1871. The population of Dublin is taken as stationary at the number enumerated in April, 1871.

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ORIGINAL LECTURES.

CLINICAL LECTURES DELIVERED IN MIDDLESEX HOSPITAL.

By JOHN W. HULKE, F.R.S.

ON CASES OF STRANGULATED HERNIA.

GENTLEMEN,—No accidents are more deserving of your closest attention than strangulated ruptures, for it is scarcely an exaggeration to say that no two are alike in all their circumstances, and upon your prompt appreciation of these will mainly depend your patients' rescue from a condition which, when unrelieved by art, is so desperate, so nearly hopeless, that it well-deserved the name our forefathers gave it—a "*miserere.*" There have been lately in Broderipp ward two cases which it will not be unprofitable for us now to review.

The first is that of a muscular, healthy carpenter, aged 27, who was admitted into Broderipp ward at 4 a.m., October 14, 1873. The right side of his scrotum was distended by a very large, extremely tense, globular swelling, which below concealed the testis, and above was continuous with an oblong portion in the inguinal canal. When he coughed, no impulse was communicated from the belly to the scrotal tumour. It and the belly were very tender, and so painful that he writhed restlessly about in bed and begged for something to be done speedily to relieve his suffering. He frequently retched. His face was pale, and its expression anxious. His pulse was quick and small.

He had had a rupture for many years; it had sometimes come down, and until now he had always managed to replace it. Latterly he had worn a truss. The rupture had slipped down at midnight; he could not get it back; it directly became extremely painful. He began soon after to vomit, and felt very ill.

At five o'clock, when I saw him, he was at once placed under the influence of chloroform, and, when complete relaxation was obtained, the taxis was tried for a few minutes. Not being successful, without further loss of time the hernia was operated on under a carbolised spray. A cut, about three inches long, was made in the long axis of the tumour, with its centre over the depression which marked off the scrotal swelling from that in the groin. When the external inguinal ring, where the seat of the strangulation was expected to be, had been notched, and some tight threads of fascia transversalis upon the outer surface of the sac had been cut, another attempt was made to reduce the contents. It failed, and the sac, which was very thin and transparent, was opened. A coil of dark purple intestine came clearly into view. The finger could be passed upwards through the internal ring without meeting any obstacle, yet still reduction was impracticable. The impediment now appeared to be in the scrotum; and on passing the finger downwards, at about one inch from the lower angle of the wound, a sort of transverse diaphragm was found dividing the scrotal part of the sac into an upper and a lower compartment, which communicated by a small circular aperture. When this had been notched, and a recent adhesion of the gut just above it had been separated, several coils of small intestine, almost black, and spotted with many small hæmorrhages, were easily drawn out of the lower compartment and reduced. They were lying upon the testis. The wound was washed out with a watery solution of 1 per cent. of carbolic acid, closed with wire stitches, and dressed antiseptically. He was ordered one grain of opium at intervals, the length of which was to depend on pain. The wound healed almost wholly at once; a very slight, inodorous, sero-purulent discharge oozed for a few days from the upper angle. The bowels first acted on the 21st, and until then he was restricted to a milk diet. At the end of the month he was convalescent.

The next case is that of a large, heavy brewer's drayman, aged 23, also lately in Broderipp ward. He had had a rupture since childhood, but he had never worn a truss. At long intervals the rupture had occasionally slipped down, but until now it had always been reducible. At 4 p.m., whilst hurrying to catch a train, he felt it pass into the scrotum; and he was directly seized with great pain, followed by sickness. His attempts to reduce the rupture failing, and his suffering becoming very great, at 7 p.m. he was brought to the Hospital. When I saw him (four hours after the accident) the right side of his scrotum was distended by a very tense rupture, about a span long, separated by a shallow groove at the external abdominal ring from an upper portion filling the inguinal canal. The scrotal part did not receive any impulse from the belly when he coughed. The testis could be plainly felt at the bottom of the scrotum, distinct from the rupture behind it. He was bent double with pain in the belly and rupture—the latter, too, was so tender that he could not bear it to be handled; and he was sick. We at once gave him chloroform, then tried the taxis for a few minutes, and, not succeeding by it, operated.

When the external ring, where the strangulation was expected, had been notched, an attempt was again made to reduce the contents without opening the sac, but this could not be effected. The sac, as thin as tissue-paper and quite transparent, was then opened. It contained a large piece of omentum slightly congested, and behind this several coils of dark purple small intestine. The obstacle to reduction was found to be a couple of tight fascial threads crossing the neck of the sac and blended with it; after their division the intestine and omentum were returned without difficulty. The sac also contained about two ounces of bloody serum. Antiseptic precautions were taken during the operation, and the wound was dressed antiseptically. It healed almost entirely at once; there was a slight suppuration only in one suture-track. The first stool was not passed until the fourteenth day, when, the belly being rather uneasy, a simple enema was given, which brought away many scybalæ. About a week later, when quite convalescent, he had looseness, with tenesmus, caused by impaction of fæces in the rectum. It ceased on their removal, and a couple of days afterwards he returned to work.

These, gentlemen, are pattern cases of large, acutely strangulated ruptures in young muscular subjects. In the first patient recourse was had to herniotomy five hours, in the second four hours, after the accident. To some of you this will perhaps have appeared a hasty proceeding, and you would like to ask me why we did not give the taxis a longer trial and put the patient into a hot bath; why the effect of a full dose of opium and of ice upon the rupture was not tried before operating—measures which you have known successful in other cases. The reply is, that when unsuccessful these measures have entailed a loss of time which in acute cases is very perilous; and here the ruptures were so tense, presumably therefore the strangulation so tight, that the chance of their succeeding was almost *nil*. It is in the less acute strangulations, where a few hours' delay in operating does not much increase the danger, that they find their proper place. Experience has only strengthened my conviction that abuse of the taxis has contributed in no small degree to swell the mortality after operations on strangulated ruptures. I speak not merely of a misplaced confidence in it, by which precious time is lost, during which the patient's condition drifts into constantly increased dangers, but of injuries inflicted by the use of force unwarrantable in degree and faulty in direction. Two cases which I watched with intense interest made a lasting impression on my mind. I will briefly relate them as warnings to you.

A young widow, ruptured four years, wearing a badly fitting truss, had her rupture slip down and become strangulated. For three days her medical attendant assiduously persevered with the taxis. At last she was brought into a hospital. In her right groin was a large, tense, tender crural rupture. She complained of a dreadful screwing pain in the belly at the navel, and of great thirst, and she vomited a pale coffee-coloured, fæcal-smelling fluid. The house-surgeon put her into a hot bath and repeated the taxis, with the result that the contents of the rupture suddenly slipped up into the belly. She instantly cried out with excruciating pain above the pubis—she exclaimed that she thought her bladder had burst. Two hours later the pain was, if possible, still more intense, and her suffering was heightened by a sensation of distension, as if her belly were about to burst. Her face was pale, her features pinched and sunken; her pulse small, intermittent, weak, and so rapid that it could hardly be counted; and she retched, with little intermission, bile-coloured matters.

The sudden way in which the contents of the rupture went up into the belly, raised the suspicion that possibly they might have slipped up through the crural opening still enclosed in the sac, and constricted by its neck (reduction *en bloc* or *en masse* as it was named by Claquet). It was ascertained by an exploratory operation that this mishap had

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not occurred. She died seventeen hours after the reduction of the rupture.

At the examination of her body the sac and the tissues around it were found in a nearly gangrenous condition. Six inches of the ileum were gangrenous, and in this part was a small hole through which fæces had run out into the peritoneal cavity. The pelvis contained about a pint and a half of a turbid, yellow, fæculent-smelling serum, and there were evidences of an intense general peritonitis. Had this woman's rupture been operated on early instead of being repeatedly submitted to the taxis, she would probably have recovered; and even on the fourth day—by which time its contents had become gangrenous—had the taxis not been repeated, but herniotomy been done, and the sac opened, the gangrenous condition of the strangulated intestine would have been ascertained, a safe outlet for its contents might have been made, and recovery with an artificial anus been still possible. As it was, misuse of the taxis allowed the gut to become gangrenous, then burst it, and killed her.

Several years later I witnessed another case where I could not resist the conviction that the patient's death was directly due to violent manipulation. The rupture was umbilical, very large, of several years' formation, during which the patient, a stout middle-aged woman, had been plagued with dragging pains, and with retching, which were relieved by simple domestic measures. At last strangulation occurred, and her condition growing desperate, additional advice was obtained. Happening to go in, I saw the surgeon standing upon a stool, bent over his patient, energetically kneading the rupture with, as it seemed to me, a dangerous expenditure of force. She suddenly swooned, and in a few moments life was extinct. At the examination of her body, her stomach, much dilated and thinned, and partly drawn into the rupture and entangled in it by adherent omentum, was found burst; the rent was extensive, and the contents were diffused through the peritoneal cavity.

I have, also, several times found the skin red and ecchymosed and the superficial cellular tissue so much more congested than that nearer the sac, that I felt constrained to refer these disorders to external injuries, and not to any spread of inflammation from the rupture to the surface. The lesson which cases such as these and the two I have just related convey is that any handling of a strangulated rupture should be very gentle. The only justifiable taxis is a gentle, uniform, steady compression, combined with an equally gentle pushing in the direction of the channel through which the viscera have protruded from the belly. This, whilst far safer, is also much more efficient than the forcible jerky squeezing occasionally witnessed.

To return to our two cases. You will have remarked that they have several common features and one notable difference. Both patients were young muscular men; in both the local and also what are termed the "general" or "constitutional" symptoms were urgent; the nervous commotion, pain in belly, and sickness were great, and the morbid changes in the strangulated viscera were already very considerable, although so short a time as only four hours in one and five hours in the other case had elapsed. In the first rupture the intestine in the sac was even more excessively congested than in the second. Two circumstances conduced to this—first, the contraction of the inguinal ring consequent on the recent use of a truss; and next, the existence of a double strangulation, one at the external abdominal ring, the other in the sac occasioned by the sharp edge of the circular partition which divided this into an upper and a lower compartment. You will recollect that the intestine in this compartment was even more congested and more spotted with extravasated blood than that in the upper space between this partition and the external ring. You will also have noticed that the intestine was directly in contact with the testis—in short, that the hernial sac was the tunica vaginalis testis (the obscuration of the testis by the rupture raised the suspicion of this before the operation), —the characteristic of the variety of rupture named "congenital," because conditioned by the persistent openness of the tube of peritoneum, which the testis draws after it in its passage from the loins into the scrotum in the eighth month of fœtal life, and which, soon after the testis has left the external ring, normally begins to be obliterated and converted into a solid fibrous band.

The partitions in the upper part of the sac, so frequent in congenital hernia (I have several times met with one, and more than once found two), probably have their origin in incomplete obliterations of this peritoneal tube. Their presence is an additional complication, and it may, perhaps, partly explain the much greater danger of strangulated congenital ruptures than of herniæ acquisitæ of similar bulk and at the same time of life—a circumstance so pointedly mentioned by Dieffenbach in his "Operative Chirurgie," a book I cannot too strongly recommend you to read.

In our second case the hernial sac was distinct. Formerly this would have been regarded as a *hernia acquisita*—one whose sac was a new bag of peritoneum pushed before them by the protruding viscera; but the early age at which the rupture first appeared, renders it very probable that it was really only a sub-variety of congenital hernia, in which the congenital peritoneal tube had been obliterated only just above the testis, so separating its dilated testicular part (now the tunica vaginalis) from the tubular part above, which, remaining unclosed, admitted the intestine into it, and became its sac. In connexion with this, I would refer you to Mr. Birkett's article on hernia in Holmes's "System of Surgery." The progress of both cases after the operation was all that could be desired. The symptoms of strangulation at once ceased, and those who saw only the calmness of the following day could scarcely realise the critical state which had so shortly preceded it. There was very slight febrile disturbance, and the wound healed almost wholly by first intention. How far this should be ascribed to the antiseptic precautions I cannot say, but I would lay great stress here, as everywhere in surgical operations, on the necessity of absolute cleanliness. To both patients opium was given, not in fixed doses and at stated times, but in quantity from half a grain to a grain, and at intervals entirely dependent on the existence and the degree of pain. This, which has been my practice many years, has afforded me very satisfactory results: it tranquillises, and it keeps the bowels quiet. In one of our two cases no stool was passed until a week, in the other till a fortnight had passed. This did not occasion us any anxiety, and the only inconvenience resulting from the prolonged inactivity of the bowels was a slight impaction of accumulated fæces in the rectum—an affair of very small importance. Do not take my remarks as a sanction to give opium necessarily in all cases; this would be a blameable want of discrimination. To some patients you will not need to give a single grain; to others you must give it boldly, but with judgment.

ORIGINAL COMMUNICATIONS.

NOTES OF A CASE OF

HEMIPLEGIA FROM SOFTENING OF THE BRAIN AFTER LIGATURE OF THE EXTERNAL AND INTERNAL CAROTIDS,

WITH GENERAL REMARKS UPON THE SUBJECT.

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(*Continued from page* 287.)

I HAVE been able to collect the histories of forty-five cases of ligature of the carotid in which symptoms of cerebral disorder or disease have followed. In making this selection I have carefully excluded all cases in which the symptoms following the operation appear to have been occasioned solely by injury to, or derangement of, the nerves of the neck. Cases of the latter description constitute by no means an unimportant element in the history of carotid ligature, but do not fall in with my present object.

I have included my own case (by my friend Mr. Bartleet) in my present selection; it is the only one of the forty-five in which the ligature was not applied to the primitive carotid.

The evidence afforded by these cases, as to the nature of the morbid process which has taken place in the brain, is for the most part clinical only, since the details of the organic changes which have been the effect of this morbid process, even where supplied, generally fail to afford clear indications of the successive steps by which the effect has been produced.

In recording the peculiar circumstances which rendered the application of the ligature necessary, I may add to my own selection of cases twenty-three others from Dr. Ehrmann, thus giving a total of sixty-eight cases in which cerebral disorder had followed deligation of the carotid.

Of these sixty-eight cases, the artery was tied for aneurism

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of the common or internal carotid, real or supposed, in nineteen cases only—a circumstance which adds force to the recommendation already quoted, to prefer the external carotid for deligation, wherever practicable.(a)

In Dr. Norris's tables (*American Journal of Medical Science*, July, 1847), taking together all cases in which the common carotid had been tied without reference to the sequel, there were fifty-three cases in which the ligature was applied for aneurism of the common or internal carotid, or of the innominata (though in four cases the diagnosis was proved erroneous), out of a total of 149. The other cases involved the branches of the external carotid, with the exception of six in which the operation had been performed with the idea of curing some cerebral affection.

Recurring now to the clinical details in the forty-five cases which form the subject of my present communication: I have first to observe that two principal theories are advanced in explanation of the cerebral accidents which take place under the circumstances we are considering. The older one originated by P. Bérard, extended by Dr. Chevers, and fully formulated by Dr. Ehrmann (*op. cit.*), refers the disease in the brain, with certain exceptions to be stated immediately, to a state of anæmia, and places the cause of the supposed anæmia mainly in failure of the circle of Willis to effect compensation for the blood withdrawn. It further suggests the probability of imperfection in certain of the trunks of that circle when the cerebral mischief is long continued or permanent. In certain cases, however, in which the cerebral symptoms present themselves only "au bout d'un certain temps," Ehrmann agrees with Chevers in supposing an excess of pressure to have been exerted upon the cerebral tissue during the effort of re-establishing the circulation, whence arises an "imperfect state of nutrition disposing to change" (p. 64).

M. Richet ("Dictionnaire") offers decided opposition to an important part of this theory. He first distinguishes broadly between the *primitive* accidents and those which are *delayed* for twenty-four or forty-eight hours after the operation. The former class, comprising the less grave and more fugitive symptoms, he refers to anæmia of the *entire* brain—the immediate consequence of closing the carotid. The second class of deferred symptoms, containing the graver and more permanent accidents, he explains by the effect of the ligature upon the vaso-motor nerves of the carotid itself. The injury of these nerves inflicted by the ligature, he says, induces paralysis, with dilatation of the intracranial vessels depending upon that particular artery, and a slowing of the circulation through those vessels, of which engorgement, congestion, and patches of ecchymosis are the ultimate consequence.

I do not propose at present to do more than state these hypotheses; but whatever be the nature of the morbid processes which take place in the brain, and however varied they may be, it may be noted that they all tend to one end—disorganisation of the tissue of the brain, or at least suspension, temporary or permanent, of its functioning power. I cannot but think, however, that an examination of the cases I now have under review will justify the suspicion that the accidents themselves may be of a more varied character than either of these theories indicate, and not conformed to one or two fixed types alone; at least, I think this remark will apply to hemiplegia, the most important in the list of symptoms. Reasons will be given for referring several of the cases of hemiplegia to special causes peculiar to the particular case.

Now, it will be at once admitted, with reference to all the cases, that in considering their details we have to do with an exceptional condition of the brain, or of its vascular arrangements. The very fact that about 60 per cent. of the patients operated upon do not suffer, at least in the way under notice, proves that some peculiarity must exist in the remaining patients; and this conclusion is supported by considerations not necessary to insert in this place. At the outset of the inquiry, one very obvious consideration presents itself as connected with special states of the brain: I mean the degree of sensitiveness to changes in its nutritive arrangements or functional demands natural to the cerebral tissue in each individual. In this particular, it need hardly be stated, there is a wide difference between the organisation of different brains; and preternatural liability of this kind will be enough to account for some of the less serious consequences of interrupting the current of blood through the carotid, especially those which occur immediately after the deligation.

Obvious analogy suggests one important circumstance often connected with the operation, either as an antecedent or as a consequent, which must act powerfully in increasing such sensitiveness, or in creating it when absent: I refer to the occurrence of hæmorrhage at various periods before the outbreak of the cerebral symptoms. My cases appear to point to this accident as holding an important place among the indirect or even the direct causes of the affection of the brain.

Referring to the relative mortality and to the relative liability to cerebral accidents which attend the different classes of cases for which deligation of the carotid is practised, I find that the statistics of Lefort and Norris agree in showing that the *mortality* after the operation required for wounds or ulcerations of the neck and face—cases in which hæmorrhage is a prominent element—much exceeds the mortality after the artery has been tied for tumours, although the latter class of cases is not altogether free from risk of hæmorrhage (33 per cent. against 28 per cent., Lefort; 50 per cent. against 31 per cent., Norris). In Dr. Norris's cases, the percentage of *cerebral accidents* was 26·4 in the operation for wounds, etc., against 16·7 for tumours.

In eleven of my own cases the ligature had been required by wounds; there had been hæmorrhage in all, in four at least profusely. Moreover, in three of the cases in which the operation had been occasioned by tumours, severe hæmorrhage had taken place. Now, in all but two of these fourteen cases the symptoms were of an urgent character, and in all the cases they occurred at an early period after the ligature. In one of Mr. Nunneley's cases of operation for orbitar aneurism, although very alarming symptoms occurred at the moment of tightening the ligature, the renewal of these symptoms after their partial removal occurred coincidently with repeated secondary bleedings. In a case of fungoid tumour narrated by Dr. Warren, the access of temporary cerebral disorder concurred with the occurrence of secondary hæmorrhage. The most striking example, however, was furnished me by my friend and colleague Mr. Baker, in a man whose carotid was tied for most profuse hæmorrhage from a wound in the neck. Immediately on tying the ligature, the collapse was so extreme that preparation was being made for effecting transfusion; the man, however, recovered. The wound of the operation healed perfectly, when secondary hæmorrhage occurred on the sixteenth day, and returned with alarming frequency and copiousness; five days after, delirium occurred, and hemiplegia on the day after. The patient made a very lingering recovery. It is self-evident that the occurrence of hæmorrhage must exert a powerful influence upon the progress of cases such as those under consideration; but perhaps the point of my remark may rather consist in the fact that hæmorrhage had been a prominent symptom in fifteen out of forty-five cases of cerebral affection.

(*To be continued.*)

(a) I ought to have added the authority of M. Richet ("Dictionnaire") to that of Mr. Holmes in support of indirect digital pressure to the carotid in cases of aneurism of that vessel; and this quite as much with the object of avoiding the danger of other accidents, especially of inflammation of the sac (in his opinion the most common of the fatal accidents after ligature of the carotid for aneurism), as from fear of injuring the brain. The same writer strongly advises to reserve the ligature of the common carotid for "des cas graves et tout à fait urgents," substituting for it, wherever it can be done, deligation of the external, or even of both external and internal carotids at once. In my own case, however, though the latter alternative was adopted, the patient did not escape cerebral disease. I may also note in this place that in the "Dictionnaire de Médecine et de Chirurgie Pratiques," in 1829 (to which the present work is, I presume, the successor), M. Bégin makes no reference to any special danger which attached to the operation of tying the common carotid (article "Anévrisme").

THE LEPER HOSPITAL, MADRAS,

WITH AN ACCOUNT OF THE LATEST REMEDIES PROPOSED FOR LEPROSY, AND THEIR RESULTS.

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(*Continued from page* 343.)

IV.—Diet.

The dietaries in use in the Lazaretto, for Eurasians and natives respectively, are given below:—

Diet Table of Europeans.—Spoon diet: Breakfast—Tea, 1 pint; sugar, ½ oz.; milk, 3 oz. Dinner—Sago in jelly, 2 oz.; sugar, ½ oz. Supper—As breakfast. Tea diet: Breakfast—Tea, 1 pint; bread, 3 oz.; sugar, 1 oz.; milk, 3 oz. Dinner—Tea, 1 pint; bread, 3 oz.; sugar, 1 oz.; milk, 3 oz.; arrowroot, 4 oz. Supper—Tea, 1 pint; bread, 2 oz.; sugar, 1 oz.;

milk, 3 oz. Beef-tea diet: Breakfast—Tea, 1 pint; bread, 4 oz.; sugar, ¾ oz.; milk, 3 oz. Dinner—Beef-tea, 12 oz.; bread, 8 oz. Supper—As breakfast. Milk diet: Breakfast—Tea, 1 pint; milk, 1 pint; bread, 4 oz.; sugar, ¾ oz. Dinner—Rice, 2 oz.; milk, 1 pint; bread, 4 oz.; sugar, ¾ oz.; soojee, 4 oz., in lieu of rice. Supper—Tea, 1 pint; bread, 4 oz.; butter, ½ oz. Chicken diet: Breakfast—Tea, 1 pint; bread, 2 oz.; butter, ½ oz. Dinner—Chicken, 8 oz.; bread, 8 oz.; custard pudding. Supper—As breakfast. Low, with pudding: Breakfast—Tea, 1 pint; bread, 3 oz.; butter, ¼ oz. Dinner—Mutton broth, 1 pint; bread, 6 oz.; rice pudding. Supper—Tea, 1 pint; bread, 3 oz.; butter, ¼ oz. Low diet: Breakfast—Tea, 1 pint: bread, 4 oz.; butter, ½ oz. Dinner—Mutton broth, 1 pint; bread, 8 oz. Supper—As breakfast. Half diet: Breakfast—Tea, 1 pint; bread, 6 oz.; butter, ½ oz. Dinner—Mutton broth, 1 pint, or meat roasted or fried, 10 oz.; bread, 4 oz.; potatoes, 8 oz. Supper—As breakfast. Fish diet: Breakfast—Tea, 1 pint; bread, 6 oz.; butter, ½ oz. Dinner—Fish, 8 oz.; bread, 4 oz.; potatoes, 8 oz.; butter, 1 oz. Supper—As breakfast. Full diet: Breakfast—Tea, 1 pint; bread, 6 oz.; butter, ½ oz. Dinner—Broth or soup, 1 pint, or meat roasted, 12 oz.; bread, 4 oz.; potatoes, 12 oz. Supper—Tea, 1 pint; bread, 6 oz.; butter, ½ oz. Mixed diet: Breakfast—Coffee, ½ oz.; bread, 8 oz.; butter, ½ oz.; sugar, ½ oz.; milk, 3 oz. Dinner—Rice, 8 oz.; mutton for curry, 8 oz.; vegetable, 4 oz.; bread, 2 oz. Supper—Coffee, ½ oz.; sugar, 1½ oz.; milk, 3 oz.; bread, 6 oz.; butter, ½ oz.

Diet Table of Natives.—Full diet.—Breakfast: Adults—Boiled rice 1¾ pint, atchar(a) 1 oz.; youths—thick congee 12 oz., atchar 6 drs.; children—thick congee 8 oz., atchar 4 drs. Dinner: Adults—Boiled rice 2½ pints, curry ½ pint; youths—boiled rice 1¾ pint, curry 6 oz.; children—boiled rice 1¼ pint, curry 4 oz. Supper: Adults—Boiled rice 1¾ pint, pepper-water 1 pint; youths—boiled rice 1¼ pint, pepper-water 12 oz.; children—boiled rice ¾ pint, pepper-water 6 oz. Reduced diet.—Breakfast: Adults—Boiled rice 1¾ pint, atchar ½ oz.; youths—thick congee 12 oz., atchar ½ oz.; children—thick congee 6 oz., atchar none. Dinner: Adults—Boiled rice 1¾ pint, curry 6 oz.; youths—boiled rice 1¼ pint, curry 4 oz.; children—boiled rice ¾ pint, curry 2 oz. Supper: Adults—Boiled rice 1¼ pint, pepper-water 12 oz.; youths—boiled rice ¾ pint, pepper-water 8 oz.; children—boiled rice ½ pint, pepper-water 4 oz. Spoon diet.—Breakfast: The same as in the reduced diet. Dinner: Arrowroot, sago, mutton broth, or fowl soup, at the discretion of the surgeon (these articles to be the same as in European hospitals)—adults 1 pint, youths 12 oz., and children ½ pint. Supper: The same as in reduced diet.

Rotation of Diet.—Europeans: Sunday, stew for dinner; Monday, ordinary vegetable and mutton curry; Tuesday, French ball curry; Wednesday, pepper-water and fried mutton; Thursday, mutton mulligatawny; Friday, pepper-water and fried mutton; Saturday, kabob curry. Natives: Sunday, Monday, Wednesday, Thursday, and Saturday, mutton curry; Tuesday and Friday, vegetable curry.

Preparation of Stew for One Patient.—Mutton, 8 oz.; potatoes or other vegetable, 4 oz.; flour (wheat), ¼ oz.; onions, 1 oz.; pepper, ⅛ oz.; vinegar, ⅛ oz.; salt, 6 drs.; water, sufficient to make ½ pint.

French Ball Curry for One Patient.—Mutton, 8 oz.; ghee, ⅝ oz. spice, ½ oz.; salt, 6 drs.; lime-juice, 4 drs.; cocoanut, ½ oz.; curry powder, ½ oz.; onions, 1 oz.; water, sufficient to make ½ pint.

Preparation of Ordinary Vegetable and Mutton Curry for One Patient.—Mutton, 8 oz.; vegetable, 4 oz.; curry powder, ½ oz.; tamarind, ½ oz.; ghee, ¼ oz.; salt, 6 drs.; onions, 1 oz.; water, sufficient to make ½ pint.

Pepper-Water and Fried Mutton for One Patient.—Curry powder, ¾ oz.; ghee, ⅝ oz.; salt, 6 drs.; tamarind, ½ oz.; onions, 1 oz.; mutton, 8 oz.; water, sufficient to make ½ pint.

Mutton Mulligatawny for One Patient.—Mutton, 8 oz.; curry powder, ½ oz.; tamarind, ½ oz.; ghee, ¼ oz.; salt, 6 drs.; onions, 1 oz.; water, sufficient to make ½ pint.

Kabob Curry for One Patient.—Mutton, 8 oz.; curry powder, ½ oz.; lime-juice, 4 drs.; ghee, ¼ oz.; spice powder, 1/16 oz.; salt, 6 drs.; green chillies, ⅛ oz.; ginger, 1/13 oz.; cocoanut, ¼ oz.; onions, 1 oz.; water, sufficient to make ½ pint.

Curry Powder.—Chillies, 3 oz. 12 drs.; black pepper, 1 oz. 8 drs.; coriander, 1 oz. 5 drs.; turmeric, 9 drs.; cummin seed, 12 drs.; mustard seed, 12 drs.; vendeum (dill) 12 drs. (For eight curries.)

Eight ounces of raw rice by weight are computed to boil into twenty ounces dry by weight and twenty-eight ounces by measure.

The quantities (in ounces) of raw rice allowed for breakfast, dinner, and supper respectively, under the different denominations of diet are as follows:—

	Full Diet.			Reduced Diet.			Spoon Diet.	
	B.	D.	S.	B.	D.	S.	B.	S.
Adults ..	4	12	8	4	8	6	4	6
Youths ..	3	8	6	3	6	3½	3	3½
Children ..	2	6	3½	1½	3½	2½	1½	2½

Adults, fifteen years and upwards; Youths, from eight to fifteen years; Children, under eight years. Computation: Sixteen ounces to the pint; sixteen ounces to the pound; sixteen drachms to the ounce.

The following are the ingredients for half a pint of curry and half a pint of pepper-water respectively:—

Articles.	For ½ Pint of Curry. drs. grs.	For ½ Pint of Pepper-Water. drs. grs.
Tamarind	9 9	5 4
Garlic	2 0	1 0
Salt	8 18	4 9
Onions	5 9	2 18
Ghee	6 18	2 9
Chillies	3 9	1 8
Black pepper	1 9	0 18
Coriander	0 18	—
Turmeric	0 24	—
Cummin seed	0 12	0 6
Mustard seed	0 12	0 6
Vendeum (dill)	0 12	0 6
Carriapillay	0 9	0 4

Table: Twenty-seven grains make one drachm; sixteen drachms make one ounce; sixteen ounces make one pound.

Among Eurasians the mixed diet is most popular, as it contains curry and rice, and may be termed their staple diet. Occasionally chicken diet is preferred, and less frequently full diet; but, when intercurrent diseases set in, it is often necessary to prescribe spoon diet, with extras varied according to circumstances.

Among natives, the full diet of their scale is that mostly in use, and, though a great improvement on the ordinary full diet of native hospitals generally, is, I opine, scarcely equal in the item of animal food, both albuminous and fatty, to the requirements of lepers. Its nutritive value(b) appears to me considerably inferior to that of the mixed diet of Eurasians, and I am unable to discern why there should be so manifest a difference. Natives, as a rule, may not be so accustomed to animal food as Eurasians, but this surely is no proof that they do not equally need it; and I am in hopes that the same liberal and generous spirit which has recently led Government to sanction the improvement already made will lead it to sanction the greater improvement needed still, as soon as its necessity is shown. Certain I am that until natives at large feed on better and more nutritive food than they do, they will continue liable to leprosy; and that, also, when once leprous, good nourishing food is certainly the best means of keeping the manifestations of the taint at bay.

V.—Employment and Recreation.

1. *Employment.*—For a long time past the inmates of the Lazaretto have been encouraged to occupy their time in gardening within the grounds of the institution, and, as an inducement to do this, have been permitted to sell what they have cultivated, and keep the proceeds themselves. But recently all able to work have been told off to various duties in the institution, not only as a means of benefiting their own health, but also of reducing the hospital establishment of servants. In this way two ward coolies and one scavenger of the permanent establishment have been recently discharged, and the services of a tailor dispensed with. At present the lepers are employed as follows:—In sweeping, eight; gardening, forty-one; ward duties, ten; lamplighting, one.

2. *Recreation.*—For the recreation and amusement of

(a) Atchar, equal to pickles.

(b) In a recent analysis of the mixed diet of Europeans and full diet of natives, the Chemical Examiner of Madras represents the values of albuminate and fatty principles in the former as 3·25 and 2·11 respectively, and in the latter as 2·2 and ·93. The total water-free food is 23·98 oz. in the mixed diet and 23·53 in the native full diet; so that there is a manifest lack in the latter of fatty matters especially, and of azotised matter also, with an excess of starch and salts.

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Eurasian lepers, draft- and chess-boards, bézique, cards, and musical instruments (harmonium, flute, violin, concertina, and French horn) have been provided. An aquarium was also placed in each of the female wards; a rabbit-hutch in the back and an aviary in the front verandah; and a fowl-house built and stocked close to their wards. The women, however, have not shown any deep or permanent interest in these. The aviary, rabbit-hutch, and fowl-house are all empty, and the aquaria owe their present stock, reduced as it is, to the ward attendants more than to the patients. Among the males, however, a greater measure of interest has been shown. They keep up their stock of fowls and pigeons, and seem altogether more alive and active than the women are. Newspapers are supplied to the lepers through the sympathy and interest of friends; and there is a collection of books, contributed at different times by Government and occasional visitors, for the perusal of the Lazaretto inmates.

VI.—Leprosy: its Varieties and their several Features.

Leprosy in both its forms—tubercular and non-tubercular—occurs in this place. The two have some features in common, such as deciduous eyelashes and eyebrows, alteration of the voice, ulceration, distortion, mutilation, and leucoderma. Even anæsthesia, though generally absent in the early history of a tubercular case, becomes a prominent feature in its later development, as it is *ab initio* in every instance of the non-tubercular variety. Still, the two forms are distinct enough. The appearance of tubercles in tubercular leprosy, accompanied or preceded by more or less deeply coloured patches—at first often hyperæsthetic—sufficiently distinguishes this form of the disease in its early stage. Then the progressive increase of the tubercles, causing a thickened and rugose condition of face, and its marked leonine expression, still further characterises this form of the malady; while the appearance of light discoloured patches of the skin, and the early occurrence of anæsthesia, soon indicate existence of the non-tubercular variety, with the advance of which distortion(c) and mutilation take place sooner and more extensively by interstitial absorption rather than by the ulcerative process, as in the tubercular form.

The duration of non-tubercular is generally much more protracted than that of tubercular leprosy—that is to say, the intercurrent affections, which are found to occur in the history of both forms, usually bring about decease of the patient sooner in the latter than in the former variety.

In both its forms, leprosy is liable to be complicated with other cutaneous eruptions. Of these, the most frequent are psoriasis, eczema, scabies, and ichthyosis.

Of a total of 628 cases, 259, or 41·24 per cent., were tubercular, and 369, or 58·76 per cent., were non-tubercular. Of these cases, at the time of their admission, the voice was altered in 149, or 23·72 per cent. The digestive powers were more or less impaired in 157, or 25 per cent. Of 426 cases in which observations of the circulatory system were made, the pulse ranged below 70 in 57 cases, or 13·38 per cent.; from 70 to 80 in 100 cases, or 23·47 per cent.; from 80 to 90 in 132 cases, or 30·99 per cent.; from 90 to 100 in 83 cases, or 19·48 per cent.; 100 and upwards in 54 cases, or 12·68 per cent. Anæsthesia was present in 459 out of 628 cases, or 73·09 per cent. Of 495 cases, in 71 distinct hereditary predisposition was traced, or 14·34 per cent. Of 117 cases in which the inquiry was made, it was found that in 65 antecedent fever, malarious in its origin, had occurred; and in 52 the disease had supervened without any previous febrile action.

A few months ago, the urine of 100 of the patients in the Leper Hospital was subjected to a special examination. In 76 of these the specific gravity of the fluid ranged between 1000 and 1008, and in 24 of them above the latter number. In 40 of these cases the urine was more or less albuminous, in 1 it was saccharine, and in 37 phosphatic. In 42 it was of alkaline reaction, in 2 acid, and in 56 neutral. In 255 cases the leprous discolorations noted on their admission into hospital were light in their hue compared with the surrounding skin; in 52 they were dark. Hyperæsthesia has been noted as present in 12 cases on their admission. Leucoderma was observed in 21 of the patients on their entrance into the hospital. Other cutaneous eruptions have frequently complicated both varieties of leprosy. In 219 this eruption was squamous, in 85 papular, and in 50 either vesicular or pustular. In 14 instances elephantiasis Arabum existed as a complication.

True morphœa alba is by no means a frequent phenomenon in Madras lepers. Of 108 patients in the Lazaretto at the present time, only 15 betray the presence of white spots, where a waxy deposit exists; but the fact that in all these cases discoloration and deposit followed ulceration, renders it doubtful if these spots be true morphœa alba. They all exist, too, on the extremities, and in not one leper is there such a spot on the trunk. Their locality, as well as the history of their formation, does not therefore encourage the belief that they are morphœa alba. Of the 15 patients in whom these thickened white patches exist, 1 is an East Indian male, and all the rest are natives—11 males and 3 females.

VII.—Intercurrent Diseases.

The chief intercurrent diseases among the inmates of the Leper Hospital, as shown by the annual return for 1873, were —Febricula, 41 cases; ague, 44; chronic rheumatism, 35; tetanus, 2 (1 death); chronic bronchitis, 50; diarrhœa, 40 (14 deaths); dysentery, 31 (8 deaths); constipation, 486; chronic Bright's disease, 14 (7 deaths); ulcer, sloughing ulcer, and psoriasis, 142.(d)

The number of cases of leprosy treated throughout the year was 226, among whom there were 43 deaths, giving a percentage of 16·165—a larger mortality by 1·182 than occurred in the year 1872.

(To be continued.)

(c) It is in the non-tubercular form that the peculiar distortion of the hands, giving them the appearance of bird-claws, is generally, if not invariably, found; but this is a feature of advanced, and not incipient, non-tubercular leprosy.

(d) We are sorry we cannot print the table in *extenso*.—Ed.

REPORTS OF HOSPITAL PRACTICE IN MEDICINE AND SURGERY.

ST. MARY'S HOSPITAL.

ATTACK OF CONVULSIONS LASTING THREE HOURS, SUCCEEDED BY PERMANENT RIGHT HEMIPLEGIA AND APHASIA—RECURRENCE OF FITS OF SHORTER DURATION—OCCASIONAL CEREBRAL EXCITEMENT—DEATH FROM A BURN—AUTOPSY—ATROPHY OF THE LEFT HEMISPHERE.

(Under the care of Dr. HANDFIELD JONES.)

Elizabeth B., aged 7, admitted November 8, 1872. Was quite well up to six weeks ago, when she had a fit. Continued very much convulsed for three hours, more on left side than right. Since then has fainted twice or more, and has remained in same state as now. Is paralysed on right side, and has been so ever since she was taken; feels when pinched, but has no power of moving leg or arm; no reflex movement of leg on tickling sole of foot. Cannot speak, only utters a moan or continues placid. Is peevish if examined. Passes everything under her. Pulse 108, weak; temperature (asleep) 98°.

9th.—Eyes appear normal. Hydr. c. cretâ gr. ij., pulv. Doveri gr. j., ter die. Has never had scarlet fever or measles or any illness; never had any fits before this. Broth diet, pudding, milk.

10th.—Is ravenously hungry; eats all that she can get.

11th.—Disc seen in left eye; vessels seemed pretty normal, but rather full. Mother says patient was in bed with her one night, and suddenly screamed out that she was going to be sick. She struggled for three hours; was quite unconscious. Mother applied cold water to head and sinapism to nape of neck. The whole of the next day she lay in a sort of stupor; the palsy was not noticed that day. She continued insensible for three weeks; swallowed food when it was put to her mouth. She then began to call out "Nan, nan, nan!" as she does now, and has ever since remained as she is now. In the faints she screams out as she did when the fit was coming on first, but does not struggle, or but little. Always was very hearty for her food. At present she rolls a morsel about in her mouth before she gets it down; does not chew it naturally. She knows her mother.

13th.—Left disc much obscured, ill defined, vessels engorged; the minute branches are remarkably well seen over the retina.

15th.—Right disc well seen; the vessels are full, and the disc obscured most at its apparent inner part. In last night had two fits, one between 2 and 3 a.m., and the other about

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5 a.m. In fits she uttered loud screams. Nurse found her mouth and eyes twitching, legs quiet, and both arms jerking. She was unconscious. The attack lasted two minutes. She is now quite conscious. Moves the right leg a little; the right fingers are flexed; tries to talk more; sits up in bed better; pulse 108.

16th.—Dr. Broadbent does not think there is much amiss with the discs.

18th.—Urine neutral, deposits a copious white sediment; NO_5 throws down lithates abundantly; redissolved by heat; the urine then nearly clear; no albumen.

21st.—Continues to be ravenously hungry; eats really prodigious quantities. Bowels act three or four times a day.

25th.—Is extremely dirty; soils her bed three or four times a day, and howls and screams at night, or rather in early morning. Omitt. pot. iod. Acidi nitrici ℥j., tinct. opii ℥iv., aq. ʒss., bis vel ter die.

28th.—Never utters any other sounds than "Nan, nan!" She tries to say her letters sometimes, but makes no other sound than "Nan, nan!" Can move right foot better. Pt. c. mist. ter die. Right side of face fuller than left.

December 2.—Is much cleaner and better behaved; does not cry at all; paralysis same. A fit lasting two minutes on 30th; utters now some other sound besides "Nan!" romps and plays, and is less ravenous and more natural.

4th.—Two fits this morning of short duration. Has forgotten how to kiss; puts her mouth to a person, but does not kiss. Cannot pronounce any distinct words, only "Nan!" and "Da!" etc.

7th.—Wakes up at 3 a.m., and keeps on continually crying out "Dod, dod, dod!" She is having no fits; not ravenous; distinct white streaks seen along vessels in left eye; utters several monosyllabic sounds, but quite without meaning. Can stand and get about a little, even without any help.

9th.—Left disc is decidedly obscured, and its vessels are full.

11th.—Her memory seems better; knows her own bed now; is less craving for food between meal-times, and less noisy. She can walk alone without any support. No fit. Pupils are rather large, without atropia.

12th.—Two fits this morning, each lasting two minutes, with an interval of an hour; in the fits the sound side is most agitated, the right side is moved very little. Was very noisy all the morning after.

16th.—Has been dreadfully noisy and turbulent lately; the opiate mixture has lost its influence. At first, the sister says, its effect was wonderful. Had subcutaneous opiate yesterday; had a fit yestermorning; is always worse after a fit.

19th.—Her scalp seems tender; she cries much if her hair is slightly pulled, though she does not mind a slap elsewhere; tapping her head does not hurt her. Is taking pot. bromid. gr. x., dec. cinch. ʒss., ter die. Is less voracious. Sleeps well from 5 p.m. to 3.30 a.m.

26th.—Is dull and heavy; has pain below right ear, and much tenderness; walks well, but right arm remains palsied; face looks puffy; she seems to have a little discharge from right ear; pupils large. No fits for a week.

27th.—Said "Oh dear!" this morning, while being cleaned; has never spoken any reasonable words before. Seems very ill and suffering; brows knit; has many red spots on limbs, like large papules,—those on leg rather resemble erythema nodosum; passes all her evacuations in bed. Temperature 38·8° (101·8°); pulse weak. Is very irritable. Four leeches to right mastoid region.

30th.—Is hungry again, and more like her old tiresome self.

January 6, 1873.—Left disc well seen; is more defined, but its vessels are very full and the choroid very red.

8th.—Understands what is said to her pretty well, but has no power of speech. She has been able now for some time to find her own bed, but was quite unable to do this for some time after she came in. Continues filthy; actually eats her own fæces Refuses her medicine now at times, but used to take anything that was given her. Is not noisy now as she has been. Walks actively,—drags her leg a little; has no power over arm. While she had swelling and pain behind ear she seemed more rational,—said two or three times "Oh dear me!" Now that the pain has ceased she makes only sounds, as "Don, don, don!" No fits during last two or three weeks.

9th.—Had a severe fit this morning; was more convulsed than she has yet been; mouth drawn to left and upwards; eyes wide open, and balls turned upwards. All the limbs were about equally convulsed, except the paralysed arm, which, however, was also rigid and twitched. Was quite conscious. Fit lasted three minutes, and stupor for an hour.

15th.—Gone out. The sister of the ward tells me she is sure that the paralysed arm was wasted, and the flesh flabby.

23rd.—Mother reports that she has had three or four more slight fits; is otherwise same.

June 12th.—Brought to hospital by mother; is lively and mischievous or larky. No power of word-utterance; only says "Doddy, doddy, doddy," or some such sounds. Does not use right hand. Health very good.

July 12th.—Has very little use of right arm; speech remains as before; has had two or three slight fits. Is taking since last date small doses of bichloride of mercury.

October 16th.—Just the same. Acidi nitrici ℥ij., aq. ʒj., ter die.

She remained in the same condition till February 25, 1874, when she had a fit and fell into the fire, and was so severely burnt that she died.

Autopsy (26th).—Head only opened. The left hemisphere of the cerebrum was seen to be distinctly smaller than the right in all its dimensions, longitudinal (antero-posterior), transverse, and vertical. The posterior third of the left cerebral hemisphere was very soft; the convolutions of this part were much wasted, and the sulci enlarged and full of a clear fluid. The convolutions of the anterior two-thirds were less wasted. The right hemisphere was quite normal, except that its lateral ventricle contained a little clear fluid, which may have entered it through the open foramen of Monro from the left lateral ventricle, which was much distended with the same fluid, its posterior horn reaching to within half an inch of the surface of the convolutions. The corpora striata and optic thalami appeared normal, so did the pons Varolii, the medulla oblongata, and the cerebellum. There was no softening of the walls of the ventricles. The choroid plexuses seemed normal; the arteries of the base appeared normal. I searched to find some evidence of embolism, but could discover none. A little blood was extravasated in a thin layer under the arachnoid at the posterior notch of the cerebellum, at the junction of the superior and inferior vermiform processes. There was no trace of tumour. The superior longitudinal sinus contained a long coagulum, fibrinous and decolorised in more than its posterior half, more dark and black anteriorly.

On examining the grey and white substance of the postero-superior region of the left degenerated hemisphere, the normal structure was almost wholly absent; some remains of nerve-tubes and some vessels were seen, but the bulk of it consisted of a multitude of fatty granules or oil droplets, which were floating about free, and made up, together with multitudes of well-formed large *white* glomeruli, the whole of the degenerated tissue. Some vessels were coated with granular substance, like that of which the glomeruli were made up, others were normal. The capillaries appeared normal. The white substance seemed to be more completely degenerated than the grey substance; the latter consisted of less opaque granular matter than the white, and the glomeruli embedded in it were not so numerous or large.

Remarks.—This case was diagnosed during life as one of tumour seated in the convolutions of the left cerebral hemisphere. The grounds for this opinion were—the right hemiplegia and aphasia, and the attacks of convulsions, especially the occurrence of the first, as the commencing symptom, without any apparent exciting cause. It is true that pain in the head was absent, and that optic neuritis was not very marked; but these negative signs seemed of less weight than the positive. Dr. Hughlings-Jackson says that "a convulsion may be the first striking warning of disease of the brain so organic as tumours." He mentions the case of a boy who died of intracranial cancer. His "illness began by fits, and these were for several months the only symptoms to attract attention to organic disease of the brain" ("Convulsions," in Reynolds's "System of Medicine"). Optic neuritis is no necessary accompaniment of tumours. A case is recorded by Dr. R. Bennett of two hydatid tumours in the right cerebral hemisphere, where pallor and anæmia of the retinæ were the only changes detected by ophthalmoscopic examination. Cerebral hæmorrhage was very improbable on account of the child's age, and the frequent recurrence of the fits. Embolism was unlikely, for the latter reason, and because the heart appeared healthy. Aneurism of the cerebral arteries was improbable at so early an age. Softening—the change that actually occurred—seemed hardly to be thought of, in the absence of embolism

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and of advanced age, or of evidence of chronic inflammation. Congestion of the brain, apart from heart, kidney, or lung mischief, or sunstroke, hardly needs consideration, and if it existed would not account for the symptoms. Thus, *vid exclusiones*, we come to the diagnosis of tumour as the most probable, though it proved erroneous. The cause of the atrophy of the left hemisphere was probably a chronic interstitial neuritis, originating perhaps in the white substance, and affecting it most severely. I regret that I did not examine microscopically the condition of the right hemisphere. It certainly appeared to be normal, and no doubt was so to a great extent; but the morbid process may have affected it in some measure. Atrophy is usually met with in cases of paralytic dementia and chronic mania; but this was not one of either. In the later months of her life the symptoms corresponded tolerably well with the lesion disclosed at the autopsy. Her mental state at this time, apart from the aphasia, was pretty nearly that which would be natural to a child of her age. The convulsions may be assumed to have had their starting-point in irritation of the white fibres of the left hemisphere, which was transmitted by those of the corpus callosum to the right hemisphere and corpus striatum. The convulsions usually affected the left side more than the right, which may have depended on the cells of the latter being more capable of action, more incitable, than those of the wasted side of the encephalon. The fact that during the existence of pain and swelling of the right mastoid region she became able to utter a few rational words, which she was unable to do subsequently, is very noteworthy, but scarce admits of explanation.

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The Medical Times and Gazette *is published on Friday morning, Advertisements must therefore be sent to the Publishing Office not later than One o'clock on Thursday.*

Medical Times and Gazette.

SATURDAY, APRIL 4, 1874.

SEWER-GAS PNEUMONIA.

Talleyrand's well-known warning, "*Surtout, point de zèle*," does not always meet with approval, but it is nevertheless a saying pregnant with worldly wisdom. The *Spectator*—The *Spectator*, we mean—somewhere says, "There is nothing in which men more deceive themselves than in what the world calls *zeal*. There are so many passions which hide themselves under it, and so many mischiefs arising from it, that some have gone so far as to say it would have been for the benefit of mankind if it had never been reckoned in the catalogue of virtues." Perhaps, indeed, nowadays more is said and written in praise of *earnestness* than of zeal; but earnestness, uninformed and undisciplined, may only be our old friend (or enemy) zeal under a new name, and may be just as mischievous. And we have been made acquainted with an instance of mischief arising from sanitary zeal, or over-earnestness which is well worthy of record as a warning. On Saturday, March 14, the parish sewer, in the road immediately opposite Mr. Waterfield's well-known school, Temple Grove, East Sheen, was opened by order of the Rural Sanitary Authority, for the purpose of inserting a ventilator, protected by a charcoal basket, in order to allow the escape of sewer-gas. Mr. Waterfield, well knowing the poisonous qualities of sewer-gas, and more than doubting the efficiency of the charcoal basket protector, immediately made a representation in the matter to two members of the Sanitary Authority, but they declined to interfere. On Monday, the 16th, he therefore addressed a formal protest to the Sanitary Authority, from which protest we give the following passages:—

"Supposing the charcoal filter to be adequate for ordinary times, what proof is there that it will be sufficient for extraordinary times—for the occasions when a high tide, or a continued east wind, are forcing the gases with increased pressure to their highest outlet?

"I have under my roof 130 persons, of whom 110 are children, many of them delicate, all at an age when the constitution is unsettled, and peculiarly liable to zymotic disease.

"To cause an infectious disease there must exist these concurrent conditions—the presence of an organic germ of disease (whether generated in sewage-gas or otherwise), and a constitution fitted to receive and develope it. The chance that such a disease may be developed must always be greater in such a household as mine than elsewhere. The number of the children increases the probability that there may be one or two among them in a condition to receive the poison. But the infectious disease, once started, does not end where it begins, and the escape of sewage-gas in our neighbourhood is therefore a danger to the parish as well as to ourselves."

And in order that his protest might not pass "as the groundless alarm of an unscientific person," Mr. Waterfield submitted it to well-known medical men, and supported it by their written opinions. These gentlemen were Dr. Willis of Barnes, Dr. Marshall of Mortlake, Dr. Bateman and Dr. Fenn of Richmond, and Sir William Jenner. We will be content to quote here the opinion of the latter only; he says—"In my opinion Mr. Waterfield rather understates than overstates the dangers to be apprehended from the proposed ventilator, guarded though it be by a charcoal filter. I have two sons at Temple Grove, and feel very decidedly that, in common with the other inmates of Mr. Waterfield's house, they will, should the ventilator be placed in the high road opposite the house, be exposed to serious risk of disease." And Sir William Jenner further explained to Mr. Waterfield that the risk was by no means confined to infectious illnesses, and especially mentioned the danger of pneumonia. Mr. Edwin Chadwick also stated that he entirely agreed "with what Mr. Waterfield had stated in relation to charcoal as a filter." And further, Mr. Waterfield, in his letter to the Sanitary Authority, quoted, *inter alia*, the following warning from Dr. E. Smith's handbook for inspectors of nuisances:—"Although charcoal is of great value, it must not be regarded as a perfect protection against the ill effects of sewage effluvia."

On the 17th, Mr. Waterfield laid the matter before the officer of health, and on the 18th addressed a formal note to the inspector of nuisances, "who took no notice whatever of the communication"; and all that Mr. Waterfield succeeded in obtaining was that the open grating should not be inserted, and that the mouth of the ventilator should for a time be covered with gravel.

On Thursday, March 19, the Sanitary Board met, and their answer to Mr. Waterfield's protest was delivered on the evening of Friday, the 20th. They took no notice of the medical and scientific opinions by which his protest was support

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and they declined to discuss "the vexed question" of the efficacy of charcoal, or to change the position of their ventilator; but offered to run a shaft up the house to discharge the gas at a higher level.

Now note what followed the decision of the Board. On the afternoon of Friday, the 20th, there was an unusually high tide—one of the very dangers mentioned in Mr. Waterfield's protest. The mouth of the sewer was under water, and the compressed gases forced an opening through the gravel covering of the ventilator. Four servants sleeping in rooms looking towards the road were annoyed on that day by the smell. On the morning of the next day (Saturday, the 20th) a boy sleeping in a room which faced the ventilator was taken seriously ill. Mr. Waterfield sent for four of the medical men who had signed his protest, and they found the boy to be suffering from pneumonia. During their visit the gas was escaping freely from the sewer, and it was necessary to close all the upper windows on that side of the house. On the evening of the same day two other boys were taken ill in the same way as the first boy; and two servants were also affected. On the same evening, in consequence of the representations of Dr. Bateman, two members of the Board allowed the removal of the ventilator; and this being done, and the sewer properly closed, "all smell at once ceased." But on that day, before permission to remove the ventilator had been given, and on Sunday, Mr. Waterfield had—most justly, we should say—thought it right to send telegraphic messages to all the parents of his boys, requesting that the boys be removed as soon as possible. We may add that Mr. Waterfield states that "no case of illness attributable to bad drainage had occurred in his house" until the parish sewer was opened; and that the drainage of his house had been examined by the local officer of health, and pronounced to be in perfect order.

Now, we have related this plain unvarnished tale at some length, for its teachings are many, and perfect of their kind. They ought to be studied and taken to heart by householders, sanitary authorities, medical officers of health, nuisance inspectors, and by everyone, in short, who is interested—and who is not?—in sanitary matters. A good and right thing to be done—ventilation of a sewer—was determined on, but was done in a wrong place and a wrong manner. The imperfections of the method adopted, the patent wrongness of the place selected, and the evils that would almost certainly be caused, were pointed out promptly, clearly, and authoritatively. But the "sanitary improvement" was persisted in, and the very evils that had been predicted instantly followed. Some critics may be inclined to say that "the Rural Sanitary Authority" was ignorant, with that most dangerous ignorance that comes of a little knowledge, and obstinate, with the obstinacy born of a little knowledge coupled with a little authority; but we are content to say only that "the Authority" was zealous in sanitary reform. It is, perhaps, very difficult to excuse the indifference shown to such a protest as that sent in by Mr. Waterfield; but "the Rural Sanitary Authority" had sewer-ventilation and charcoal filters on the brain, and the sewer in question had to be ventilated, and to be ventilated in one spot, in one way, and at any price.

We do not wonder that Mr. Waterfield has given formal notice that, unless he receives the assurance of the Rural Sanitary Authority that no such opening shall be made in the sewer again, he will appeal to the Court of Chancery for protection.

But such occurrences as those we have here related are most deplorable. Besides the danger to human life, they inflict a deadly blow, in the names of authority and knowledge, on the young and tender popular faith in sanitary science, and place a fatal obstacle in the way of all sanitary improvements.

There cannot be but one opinion as to Mr. Waterfield's conduct throughout: it was prompt, energetic, of marked ability, and in every way admirable.

THE AUTHORITIES OF THE HOSPITAL FOR WOMEN AND THEIR HONORARY MEDICAL OFFICERS.

The Hospital for Women has long been pre-eminent for disagreeable peculiarities among the hospitals in London. It was one of the first of those special hospitals which have since been sown broadcast over London; and as it was among the first in point of time, so has it been, in professional estimation, one of the first in pre-eminence in working the mischief such institutions are calculated to foster. Of recent days there has arisen a cry for hospital reform, based chiefly on the fact that such institutions are grossly abused; and nowhere was, we believe, this abuse more marked than at Soho-square. No long time ago we had occasion to remark on the evils inherent in that system of hospital government in which the lay authorities have all power vested in themselves, without sufficient means of making themselves acquainted with the views of the medical officers; and on the system of snubbing these meritorious workers so persistently carried out in some quarters. At Soho-square the lay body have been all in all in the way of management, the medical officers being represented—if one can call by such a name what appears to have been in the present instance no representation at all—by Dr. Protheroe Smith, who, if report says right, has chosen almost invariably to cast in his lot with the lay body rather than with his medical colleagues.

The abuses of Soho-square have been many and great, but it is only right to acknowledge that these abuses have been pointed out by the medical staff, and that this remonstrance constituted (if we are rightly informed) one of the chief grounds for complaint on the part of the lay authorities. Be that as it may, the smouldering ill-feeling has ended in open rupture, and the greater part of the medical staff of the Hospital have tendered their resignations. A statement and correspondence between this part of the staff and the lay authorities now lies before us, and it is signed by Dr. Alfred Meadows, Mr. John Scott, Mr. Christopher Heath, Mr. Edgelow, Dr. Edis, and Dr. Squarey. The only other medical officers connected with the institution are, according to the "Medical Directory," Dr. Protheroe Smith, his son Dr. Heywood Smith, and the junior member of the staff, Dr. Carter. As already indicated, Dr. Protheroe Smith has rather sided with the lay authorities than with his medical brethren, whom he was bound to represent; the son naturally takes part with the father; and Dr. Carter has hardly been long enough connected with the institution to enable him to judge of the alleged evils. Probably he would have been wiser to take part with his brethren, but it would be unfair to reflect upon him harshly in the matter.

We cannot go into the details of the whole business, but may briefly indicate them. As often happens, the affair began by a remonstrance on the quality of the nursing in the Hospital. Promptly thereafter Dr. Protheroe Smith withdrew himself from his colleagues, protesting against their behaviour as "gratuitous and uncalled-for"; and close on this followed a letter from the General Committee, snubbing the medical officers, and telling them that they had investigated the matter, and were "of opinion that the charges made have little or no foundation." Nor was this the worst, for on or about December 19 of last year each member of the staff, except Dr. Protheroe Smith, received the following letter, dated December 11, 1873:—

"Hospital for Women, Soho-square,
"December 11, 1873.

"Sir,—I am directed by the Committee to forward to you the enclosed amended copy of the by-law No. 19.

"I am, Sir, your obedient servant,
"John Hay, Secretary."

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The following is the by-law as it stood originally:—

"19. *Honorary Medical Officers.*—That on the 31st day of December, 1854, and on the 31st day of December in every alternate year from that date, all acting honorary medical officers (excepting officers appointed before the year 1850) shall go out of office, and the vacancies shall be filled up by the Committee at their next meeting. The medical staff shall meet as often as may be required, and the secretary, or one of the medical officers, shall keep a record of their proceedings in a minute-book."

The following amendment in the by-law was passed by the Committee on December 6:—

"19. *Medical Officers.*—That on the 31st day of December, 1873, and on the same date in each succeeding year, all acting honorary and stipendiary medical officers (except officers appointed before the year 1850) shall go out of office, and the vacancies shall be filled up by the Committee at their next meeting. The medical staff shall meet as often as may be required, and one of the medical officers shall keep a record of their proceedings in a minute-book. That the medical staff shall have power to suspend the House-Physician or House-Surgeon at any time for misconduct, in which case such suspension and the cause of it shall be reported to the Committee at their next monthly meeting. That every medical officer shall be eligible for re-election upon his signifying, in writing, to the Committee such his desire seven clear days before the next meeting of the Committee, after the 31st of December, in every year."

Now, inasmuch as that these medical gentlemen had been appointed in 1872 for two years, such an enactment was obviously illegal, and such the Committee soon found it to be. They had, therefore, to modify it so as to make it come into play at the end of 1874. But the medical officers had taken the alarm; it was generally understood among them that this new by-law was intended to weed their ranks of all such as had in any way rendered themselves conspicuous by their desire for reforming the institutions of Soho-square. They therefore determined, and as we think most wisely, to resign in a body if this modified law were not rescinded. This has not been done, and the gentlemen whose names we have above mentioned have resigned in consequence. The correspondence we have read is very painful. If the statements of these gentlemen are justifiable,—and we have no reason to doubt their accuracy,—it reveals a most undesirable state of things. The gentlemen who constitute the General Committee, and who, we hear, are self-electing, and irresponsible to the governors of the Hospital, seem to forget that they do not and cannot constitute a hospital. A hospital without skilled medical attendants would be a *lucus a non lucendo*. Such being the case, the lay authorities should learn to treat gentlemen whose services are indispensable with becoming respect and cordiality. Medical men, if they are wise, will enter as little as possible into the purely business concerns of any Hospital with which they may happen to be connected, but they are certainly entitled to a due share in its internal administration. The treatment which has been awarded to one or two gentlemen of our profession in recent times is not encouraging; but, on the other hand, the Hospital authorities would, if they were wise, bear in mind the example of the Orthopædic Hospital.

THE PARLIAMENTARY SESSION.

Very soon after the Easter recess, we hope to see both Houses of the Legislature fairly settled down to work. We resume, in another column, our weekly summary of debates having special interest to the medical profession. It is to be hoped that the wonted reserve and reticence of the Prime Minister in pledging himself to a definite line of action will not deter him from giving as soon as possible some idea of the intentions of the Government with reference to sanitary measures. In advocating the claims of the profession to some well-advised measures of reform, we must remind the present Ministry that their title to the continued support of the medical profession will depend upon the skill and ability displayed in the actual practical working out of that brilliant apothegm of the Prime Minister—"*Sanitas sanitatum, omnia sanitas.*" We must express our disappointment and regret that no reference was made in the Queen's Speech to sanitary measures. At present all hands are busy setting the sails of the Government ship and turning the helm to windward. It is to be hoped that before the Cabinet has disposed of such important measures as the Army and Navy Estimates, the Budget, Local Taxation schemes, and other matters of importance promised for debate during the present session, we shall be able to obtain some promise of attention being given by the heads of the Government to the consolidation and improvement of the laws relating to Public Health. We are expecting great things, and we trust that after the calm of the Easter recess the helm of State will be turned in the direction of sanitation. If Mr. Disraeli would only pay a short visit to the Port of London, and come to the conclusion that a sanitary district of some twenty miles in length, extending from Thames Haven to Teddington (to say nothing of the lateral extension of the district into the maze of ships in the docks and estuaries of "the busiest river in the world"), is too much for one health officer to undertake, he will have done some good.

Or, on the other hand, if, as competent authorities seem to expect, the wave of cholera, creeping as it has done slowly but certainly into widely distributed European towns,—though for the present almost in abeyance,—were suddenly to crop up amongst us, could we blame the overworked and indefatigable Sanitary Officer of the Port of London? Certainly not. Let the Government apportion some of the enormous surplus to the fulfilment of Mr. Disraeli's apposite apothegm, and almost every Englishman would applaud the outlay. Then, again, something must be done during the present session with Slaughter-houses, as these, according to Taylor's Act of 1844, are to be abolished this year unless Government decides to repeal the Act. The subject was referred to a Select Committee of the House of Commons last session, but we are awaiting the final settlement of the question by the present Government. The metropolitan health officers are, as a rule, very much opposed to the continuance of the London slaughter-houses, and are advocating the establishment of public abattoirs in suitable localities. A resolution to this effect was carried at the last meeting of the Association of Medical Officers of Health, and we hope to publish a summary of Dr. Dudfield's paper on this subject shortly.

There are many other most important measures demanding speedy solution, such as improved and constant Water-Supply, the Adulteration Act Amendment Bill, Pollution of Rivers, the Building Act (with a view to prevent overcrowding in districts where, in consequence of the increased value of land, landlords have been tempted to evade the provisions of this Act), Unseaworthy Ships, Ventilation clauses in Mr. Plimsoll's Bill, and other subjects of equal importance. These we have no doubt will receive due attention from the Government before the session has very far advanced.

THE WEEK.

TOPICS OF THE DAY.

With respect to the advantages of the amalgamated clinical scheme, the Governors of the Queen's Hospital, Birmingham, stated at their annual meeting on the 19th ult. that this being the first year during which the students of the Medical School had attended the practice of the General and Queen's Hospitals under the direction of the clinical board, sufficient time had not yet elapsed to judge by experience the advantages of the amalgamation, but so far it had worked satisfactorily.

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The *Government Messenger*, a Russian paper, announces that the Cabinet of St. Petersburg has proposed that a new international sanitary conference, for the revision of the measures hitherto taken to prevent the spread of cholera, should be assembled at Vienna, and that nearly all the European powers will send representatives to the conference.

The memorial of the late Mr. W. Harvey, who took for many years an active part, both in his public and private capacity, in the parochial affairs of Islington, is to take the form of a stained glass window in the parish church. The subject is to be "Christ healing the lame man at the Pool of Bethesda."

Mr. Dyer, who gave medical evidence as to the cause of death at an inquest held on Saturday, at Clerkenwell, complained that he had had to make the post-mortem examination of the deceased in a small back room, where the family lived, ate, and slept. He was quite sure that, unless a mortuary was provided for the parish, the bills of mortality in the summer would be much increased. The jury quite endorsed these remarks. We hope the authorities will not hesitate to build another mortuary. Such an outrage on decency and danger to the public health as that very properly brought before the inquest by Mr. Dyer alike demand instant action in the matter.

The Registrar-General, in his weekly report, remarks that there was only one death from small-pox in all London, and that was in Poplar, which was at one time reputed to be the best-vaccinated district in London, and consequently, according to medical testimony, the least likely to suffer from the epidemic.

Our contemporary the *Army and Navy Gazette* states that "there is no present intention of reducing the number of Surgeons-General of the Army Medical Department. Our medical contemporaries have been misinformed."

At the *levée* held, on behalf of her Majesty, by H.R.H. the Prince of Wales, on the 27th ult., the following members of the medical profession had the honour of being presented, viz.:—Surgeon L. Corban, of the 21st Hussars; Surgeon W Launcelotte Gubbins, M.B., of the Army Medical Department; Surgeon Frank Powell, Indian Medical Service; and Surgeon T. J. H. Wilkins, of the Madras Army. The *levée* was also attended by Sir James Paget, Sir Henry Thompson, Drs. Thomas King Chambers, Wilson Fox, Peter Leonard (Inspector-General of Naval Hospitals), Lowe, Alexander Marsden, Edward Meryon, Priestley, J. Salmon (Inspector-General of Naval Hospitals), J. Wilkinson; Surgeon-General Longman, Surgeon-Major Logie, Surgeon-Major T. Gwynne Howell; Messrs. Cæsar Hawkins and T. Spencer Wells.

It was stated at a meeting of the Seamen's Orphan Institute, held in Liverpool last week, that some figures had been received from the Board of Trade which showed that a very large increase had taken place in the number of sailors who had died at sea during last year as compared with previous years. During the last four years 18,363 deaths of British seamen had occurred either abroad or at sea, and these represented 12,242 sailors' widows and 36,726 orphans.

We understand that Dr. Evans, of St. Thomas's Hospital, has been appointed Assistant-Physician to Middlesex Hospital. Mr. Turner has also been appointed Dental Surgeon to the same Hospital. For the vacant post of Assistant Physician-Accoucheur to this Hospital, we hear that the only applicant is Dr. Arthur Edis, who may therefore be considered fairly sure of election.

Dr. Alfred Meadows has just been elected a corresponding member of the Society of Physicians of St. Petersburg.

THE ROYAL COLLEGE OF PHYSICIANS.

At a very numerous Comitia of the Royal College of Physicians, held on the 30th ult., the Fellows with one accord again, and for the fourth time, elected Sir George Burrows President of the College—an office all the duties of which he has for three years discharged with such perfect dignity, efficiency, and courtesy. As is the usual custom of the President just before resigning into the hands of the Fellows the insignia of office, Sir George delivered a short address on the chief events of the past year. He pointed out that the Government had as usual applied to the College when in need of guidance upon topics where the special knowledge and experience of the Fellows would be invaluable; and that besides communications between the Government and the College on the subject of leprosy, the present Secretary of State for India had requested him to confer with Dr. Cunningham, the Sanitary Commissioner to the Government of India, in order to render assistance in drawing up instructions for the institution of investigations into the pathology of fever and other diseases specially consequent on the Indian famine, and that he had invited Dr. Mouat, Dr. Fayrer, and Dr. Murchison to assist himself and Dr. Cunningham in drawing up a memorandum, which had been forwarded to the Government. Alluding next to the memorial which the College had decided to present to the Prime Minister, expressing a hope that he would favour them by holding out some prospect of the Government, during the present session of Parliament, taking into consideration the crowded state of the dwellings of the poor in London, the President said that the Prime Minister had been requested to receive a deputation from the College to present the memorial, but had excused himself from doing so on the ground of the pressure of public business, and that therefore the memorial had simply been forwarded to him. Sir George then very briefly spoke of the fulfilment by himself and other officers of the College of the duties in connexion with the various public trusts committed in part to the College, and with reference to the Swiney Trust gave some curious and amusing details from the will of Dr. Swiney. The Swiney Quinquennial Prize of a silver cup of the value of £100, containing gold coins to the same amount, for the best published work on jurisprudence, had been this year adjudged to the Right Hon. Sir Robert Phillimore. The previous awards had been made to Dr. Paris and Mr. Fonblanque, to Professor Leone Levi, to Dr. A. S. Taylor, to Sir H. S. Maine, and to Dr. Guy. After noticing the important resolution passed by the College in condemnation of the prevalent practice of medical men advertising their works in the public and non-professional journals, the President spoke of the very awkward and doubtful position in which the licentiates of the College had been placed by the fact that the County Court Judge at Sheffield had nonsuited one of them who had sought to recover his charges for medicine which he had supplied to his own patients. The judge held that, as the licentiate of the College was not an apothecary according to the Act of 1815, he could not legally charge for medicine supplied. The College, feeling bound in honour to support what they considered to be the just rights of their licentiate, had caused another case to be taken before the same judge; and the Registrar of the College having attended and given evidence in the matter, the licentiate had obtained a decision in his favour, and the College had thus successfully upheld the powers granted them by the original Charter of Henry VIII., and maintained the rights of their licentiates. Sir George alluded also to the great zeal and assiduity with which the Committee of Reference had performed the difficult and important duties entrusted to them, and congratulated the College on the fair prospect there now seems to be of a spontaneous co-operation of all the licensing authorities in England, which must be productive of great benefit to the public as well as to the profession and to the co-operating institutions themselves. Among the most notable

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events of the year, the President mentioned the original and eloquent Harveian Oration by Dr. George Rolleston; the able and instructive lectures delivered in the College by Drs. Payne, Murchison, and Sibson; and the presentation of the Baly Medal to Dr. Sharpey; and when speaking of the wish and readiness of the College to proffer welcome and hospitality to the profession and to scientific societies, he took occasion to express his regret, in which the Fellows shared, at the unhappy miscarriage of an official document, by which the College had been prevented from taking the part they desired to take in welcoming the British Medical Association during their meeting in the metropolis last year. On the previous occasion of a London meeting of the Association, it was held within the College walls, and the College would gladly have shared in welcoming the Association again; but the unfortunate miscarriage above mentioned debarred them from having that pleasure. In conclusion, Sir George alluded in graceful and feeling terms to the congratulations of the College on the occasion of a baronetcy having been conferred on him by her Majesty, and expressed his conviction that the honour had been intended as a compliment to the College and to the whole profession—quoting in support of his conviction the words employed by the late Prime Minister in communicating to him her Majesty's gracious intention—viz., that "the baronetcy was conferred in recognition of his high position in the Royal College of Physicians," and "of the services rendered by him to his great profession."

THE RETIREMENT OF THE DIRECTOR-GENERAL OF THE ARMY MEDICAL DEPARTMENT.

Last Friday's *Gazette* announced the appointment of a successor to Sir Galbraith Logan in the post of Director-General of the Army Medical Department; and, after a period of service extending over forty-five years, Sir Galbraith retires to enjoy a well-earned repose from the cares and labours of office. The occasion is one which we cannot allow to pass by without a brief notice. In a service where jealousies and heartburnings are numerous, few men have succeeded in making so many friends as the late Director-General, and the kindly smile and ready sympathy of their late chief will long be remembered by many of those who served under him. Sir Galbraith's intimate acquaintance with the ordering of affairs at head-quarters had taught him many a useful lesson before he reached the chair, and doubtless prompted him to try the effect of urbanity in ruling a large department; at any rate, the most timid or conscientious member of the service never dreaded to undergo the interview to which he might have been summoned, and no "wigging," even if deserved, ever fell from a kinder and gentler superior.

The seven years' administration of Sir Galbraith Logan have not been noticeable for any great change or innovation, if we except the promulgation of the Warrant for the Army Medical Department of 1873. No great wars, such as the Crimean, took place during his term of office, but the Abyssinian and Ashantee campaigns were both successfully carried on and terminated whilst he was at the head of affairs medical,—the latter more especially calling for a wise and discreet supervision. As a chief, he never worried or bustled his staff, and may be said to have developed that gentlemanly tone in the department which certainly did not exist under the rule of some of his predecessors. Some blame has thoughtlessly been attributed to him for the objectionable portions of the Warrant above alluded to, but those who seek to criticise his conduct in this matter should know the whole facts of the case before administering their censure; and when they learn that, in committee, with great financial powers, and great military authorities, the protests of a Director-General are too apt to be politely shelved, or "set aside for consideration upon some future occasion"—which occasion, it is needless to say, never arrives,—we think they will very willingly withdraw their expressions of discontent that Sir Galbraith Logan failed to persuade the War Office to sanction a Warrant which would have been a real benefit to the gentlemen serving under him.

Sir Galbraith Logan saw service in India in the Sutlej campaign of 1845-46, and was present at the affair of Buddiwal, and in the actions of Ahival and Sobraon, for which he obtained the medal with one clasp. He was also present at the siege of Sebastopol, the assaults on the Quarries of June 7 and 18, and was Principal Medical Officer of the Highland Division at the final assault on September 8, 1855. For these services he received the medal and clasp, the Fifth Class of the Medjidie, and the Turkish medal. In spite, however, of tropical climates and long service, time has dealt very tenderly with Sir Galbraith; the upright figure, active habits, and genial smile might easily belong to a far younger man, and to one who had still many years to serve.

We feel convinced that he will carry with him into his retirement the best wishes of every officer belonging to the Medical Department; and if no great achievement or subtle stroke of policy be hereafter connected with his name, he will at least have earned what should be of far more value—the good opinion and affectionate remembrance of every individual with whom his business relations of many years have brought him in contact. And in wishing him an unalloyed enjoyment of the *otium cum dignitate* after the turmoils incidental to a public life, we venture to add our tribute to the general acknowledgment of his worth.

WAR HONOURS TO THE PROFESSION.

Our last little war was emphatically described by a high authority as a "doctor's war," and now when it is over, and the honours and rewards are being distributed, we may fairly claim for our *confrères* in either service a just share in them. Some of these gentlemen have been highly commended, both officially and unofficially, but we fear it would hardly be possible to promote or honour all without in a certain way disorganising the service. We may at all events accept with gratitude the instalment published in the last *Gazette*, which includes the following names:—To be an Ordinary Member of the Military Division of the Second Class, or Knight Commander of the said Most Honourable Order, Deputy Surgeon-General Anthony Dickson Home, C.B., V.C. To be Ordinary Members of the Military Division of the Third Class, or Companions of the said Most Honourable Order—Staff Surgeon Ahmuty Irwin, R.N.; Surgeon-Major Thomas Macdougall Bleckley, M.D.; Staff Surgeon Henry Fegan, M.D., R.N.; Surgeon-Major Robert William Jackson; Surgeon-Major Charles Benjamin Mosse, African Medical Service. In her Majesty's Fleet: Staff Surgeon (Second Class) Henry Fegan, M.D., to be Staff Surgeon in her Majesty's Fleet, with the seniority of the 28th inst.; Staff Surgeons John Watt Reid (b), M.D., and Ahmuty Irwin to be Deputy Inspectors-General of Hospitals and Fleets; Staff Surgeons (Second Class) Richard Eustace, Thomas Colan, M.D., and Francis Hamilton Moore, to be Staff Surgeons in her Majesty's Fleet; Surgeons Archibald Grant Colquhoun and James William Fisher, M.D., to be Staff Surgeons (Second Class) in her Majesty's Fleet. The above promotions take effect from March 31. War Office (Medical Department): Surgeon-Major William Alexander Mackinnon, C.B., to be Deputy Surgeon-General; Surgeon-Major John Andrew Woolfreyes, M.D., to be Deputy Surgeon-General; Surgeon George William McNalty to be Surgeon-Major. In a General Order (No. 32) her Majesty has been graciously pleased to command that the undermentioned medical officers be promoted to the ranks specified, in consideration of their valuable services with the force in question, viz.:—Surgeons-Major William Alexander

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Mackinnon, C.B., and John Andrew Woolfreyes, M.D., to be Deputy Surgeons-General; Surgeon George William McNalty to be Surgeon-Major.

RETURN OF MEDICAL OFFICERS FROM THE GOLD COAST.

A LARGE number of the medical officers attached to the expeditionary force on the Gold Coast arrived in this country on Saturday, the 28th ultimo, on board the transport *Thames*. They disembarked at Portsmouth and Netley, and in most instances appear to be none the worse for the unhealthy nature of the duties which they have lately been called upon to perform. We hear that several members of the medical staff have received invitations from the Lord Mayor to be present at the forthcoming dinner to Sir Garnet Wolseley to be given at the Mansion-house. It is further reported that the *Victor Emmanuel*, with the remainder of the invalids on board, is not expected to reach this country before the middle of the month—a precautionary measure which may probably have been taken to insure, if possible, a milder temperature for the sick and wounded, so as not to retard their convalescence.

CONVERSAZIONE OF THE FACULTY OF PHYSICIANS AND SURGEONS OF GLASGOW.

ON the evening of March 26 the Faculty held a *conversazione*, to which had been invited all their licentiates resident in Scotland, and the greater part of the practitioners in the western counties. The attendance was very large, almost every county in Scotland being represented. The company was received in the large hall by Dr. Ebenezer Watson, the President, who gave a short address of welcome, and briefly indicated the objects of professional interest to be found in the various apartments. These included an array of microscopes, under the care of Dr. Adams, of almost every variety, from the simple hand-magnifier to the most elaborate instruments of the best makers. A very ingenious form of hot stage, both portable and simple, was exhibited by Dr. N. Carmichael, who also showed in action an electric stage. Among the subsidiary apparatus there was shown a very effective lamp by Parkes, of Birmingham, the intense light from which is thrown in parallel lines through a tinted glass shade, and so modified as to give a large beam of pure white light, suitable equally for the microscope, the laryngoscope, or as a reading-lamp. In connexion with the uses of the microscope, there was shown a large collection of micrographs in illustration of physiology and toxicology, Dr. Adams exhibiting a number taken by him in 1854, and therefore among the earliest specimens extant; while Dr. Bell showed numerous recent specimens, and also showed by the lime-light and other connected apparatus the most approved method of taking such photographs. In the departments devoted to chemistry and toxicology was exhibited by Dr. St. Clair Gray an admirable series of preparations illustrating the reactions characteristic of the principal poisons. Dr. Dougall presented an instructive series of preparations showing the action of various chemical bodies on organic matter, and also a number of illustrations of the germ theory of putrefaction. From the laboratory of Messrs. Wallace, Tatlock, and Clark there were shown numerous beautiful specimens of pure chemicals. These gentlemen also showed in action the mode of detecting various metals by spectrum analysis. Mr. Brown showed in action the most approved medical electric instruments. Mr. Hilliard and Mr. Chapman showed the latest improvements in surgical and obstetrical apparatus. Demonstrations in laryngoscopy were given by Dr. Watson's assistants, and in ophthalmoscopy by Dr. Reid, who also exhibited Helmholtz's ophthalmometer, and showed the mode of measuring the corneal curves. Dr. McVail showed in action a very ingenious instrument, of his own invention, for recording by the graphic method the relative strength of the mechanical force in inspiration and expiration. A very interesting collection of drugs, including all the recent preparations, was shown by Mr. Macmillan. In the same department Messrs. Smith and Co., of Edinburgh, exhibited a complete series of opium principles, including thebolactic acid and crytopia (their own discoveries), and large specimens of crystallised salts of morphia, of which the meconate of this alkaloid has been introduced by them for hypodermic injection. The large specimen of crystallised caffeine, and that of cantharidine, belonging to the same firm, were much admired. Illustrative of sanitary science, Dr. Fergus and Mr. Scott gave a demonstration of the impossibility of excluding fever-gases by means of traps. Many interesting objects were shown in the department of medical archæology, those which attracted most attention being the obstetrical and surgical instruments and the microscope of Dr. William Hunter, which have only lately been discovered in a box in the Hunterian Museum of the University. Refreshments were served to the company in the library.

THE DUBLIN HOSPITALS.

THE fifteenth report of the Board of Superintendence of Dublin Hospitals has just been presented to both Houses of Parliament by command of her Majesty the Queen. The report relates to the institutions which receive grants from Parliament—namely: 1. Westmoreland Lock Hospital; 2. The House of Industry Hospitals—viz., (*a*) Hardwicke Fever Hospital, (*b*) Whitworth Medical Hospital, (*c*) Richmond Surgical Hospital; 3. Steevens' Hospital; 4. Meath Hospital and County Dublin Infirmary; 5. Cork-street Fever Hospital; 6. Rotunda Lying-in Hospital; 7. Coombe Lying-in Hospital; 8. St. Mark's Ophthalmic Hospital; and 9. Hospital for Incurables, which receives a portion of the Concordatum Fund. The return of the total number of patients under treatment for the year ended March 31, 1873, was 10,105, being a decrease of 2190 as compared with that of the preceding year (1871-72). The income from all sources, including £15,722 15s. 9d. Government grants, and £1460 city and county assessments, has been £36,119 1s. 10d. Of this amount £5276 2s. 6d. was received from subscriptions and donations, being £1198 0s. 3d. less than in the previous year; £3412 15s. 4d. from bequests, being £2448 5s. 7d. more; and £172 16s. 8d. from charity sermons, being £237 15s. 10d. less than in the preceding year. The amount expended on alcoholic stimulants was £1301 14s. 3d., being £274 0s. 10d. less than last year, but, in proportion to the number of patients, much the same. The sum total for maintaining these hospitals was £33,426 8s., showing a sum of £140 15s. 10d. in excess of last year.

With a view to the moral improvement of the patients admitted into the Westmoreland Lock Hospital, the governors of that institution have endeavoured to give effect to the recommendations of the Hospital Commissioners of 1855, and have accordingly determined to place the patients in separate wards regulated by the following classification:—(1) Patients admitted for the first time; (2) convalescent patients and those admitted from asylums; (3) married women patients; (4) patients who have been in hospital for the second or third time.

At the Meath Hospital the new fever department was inspected by the Board, who speak of it in the following terms:—

"It is on one floor, a short distance from the main building, and consists of two moderate-sized male and female wards, each designed to accommodate eight patients. These wards are ventilated by open fireplaces and windows, having bath-room, water-closet, scullery, and nurses' apartment adjoining. This new department will place at the disposal of the governors two wards in the general hospital, thus permitting them to empty the wards in rotation for thorough airing and white-

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washing. This sanitary arrangement has hitherto been only partially carried out."

The Board, while speaking highly of the cleanly and well-ventilated condition of the fever wards at Cork-street Hospital, express their dissatisfaction with the wards appropriated in the late epidemic to small-pox patients. These wards are said to be too small and imperfectly ventilated. With respect to the House of Industry Hospitals, it is stated that the water-supply is still obtained from the Royal Canal, but that the governors are in treaty with the Corporation of Dublin for a supply of Vartry water.

The mortality per cent. on the number of cases treated to a termination was—in the Westmoreland Lock Hospital, 1·83; Steevens', 3·12; Meath, 7·23; Cork-street (fever), 9·87; Hardwicke (fever), 13·94; Whitworth, 10·31; Richmond (surgical alone), 2·93; Rotunda (lying-in), 2·46 (in the labour cases); Coombe (lying-in), 1·75 (in the chronic cases) and 1·19 (in the labour cases); Hospital for Incurables, 80·70 (but on the total number of cases under treatment, 21·80 per cent.); and St. Mark's (ophthalmic), *nil*—no death occurring during the year.

CONVERSAZIONE AT STEEVENS' HOSPITAL, DUBLIN.

The Medical Committee of this institution entertained a numerous party of visitors at a *conversazione* on Saturday evening, March 28. Among those present were—the President of the College of Physicians, the Vice-President of the College of Surgeons, and the Governor of the Apothecaries' Hall. A splendid collection of microscopes and scientific instruments was arranged in the antique board-room of the Hospital. Subsequently, the Vice-President of the College of Surgeons (Mr. Joliffe Tufnell) presented the medals, prizes, and certificates awarded during the past year. The Senior Cusack Medal (silver) and £8 were given to Mr. R. B. McVittie, third year's student; a bronze medal and £5 to Mr. John McCluny; a bronze medal and £3 to Mr. W. H. Phibbs. Honorary certificates were also presented to Messrs. C. Anderson, J. O. C. Delahide, J. Emerson, M. Kerney, T. Knox, P. Lawless, C. Maturin, D. Mitchell, F. Moore, G. Searanke, H. Wall, and H. J. Warnock.

THE ASSOCIATION OF CERTIFYING MEDICAL OFFICERS OF GREAT BRITAIN AND IRELAND.

We have received a copy of the proceedings of the sixth annual general meeting of the Association of Certifying Medical Officers of Great Britain and Ireland, held at Leeds on September 19, 1873. The different reports of the Committee, Sub-Committee, and Treasurer are given, and the address of the President of the Association, Dr. Arlidge, Physician to the North Staffordshire Infirmary. A paper read at this meeting by Dr. Purdon, of Belfast, on the "Mortality of Flax-Mill and Factory Workers," is also appended. The copy of the proceedings also includes a very interesting report of a sub-committee appointed to examine into the nature and extent of the duties of the factory medical officers, and the necessity of employing medical men in the administration of the "Factory and Workshops Acts." The Association, which appears to be a very useful and necessary organisation, is stated to be in a flourishing condition, constantly attracting new members, and continually finding fresh avenues of usefulness from the ever-progressive advance of factory legislation.

THE ADULTERATION ACT.

The Home Secretary, in reply to a deputation of the Manchester and Salford Grocers' Association, who urged upon him the amendment of the Adulteration of Food Act, 1872, especially in reference to tea passed out of bond, stated that the matter had been under the consideration of the Government for some little time, and at the present moment was in the hands of the President of the Local Government Board. They were considering whether anything could be done, or ought to be done.

PARLIAMENTARY.—PUBLIC HEALTH (IRELAND)—CATTLE DISEASE (IRELAND)—ADULTERATED ARTICLES—REGISTRATION OF BIRTHS—CONSTANT WATER-SUPPLY—THE MEDICAL OFFICERS OF THE ASHANTEE EXPEDITION—DR. LIVINGSTONE'S FUNERAL.

In the House of Commons, on Friday, March 27,

Sir M. H. Beach obtained leave to bring in a Bill to amend the law relating to public health in Ireland, and also one to amend the Acts relating to cattle disease in Ireland. The latter Bill was read a second time on Monday, March 30.

Mr. Sclater-Booth (the Secretary of the Local Government Board), in replying Mr. Mundella's question with regard to the importation of adulterated articles of food into this country, and with a view to relieve honest traders from their liability to conviction under the Act of last year for the sale of such articles, stated that this Act had been much under his consideration, for he had already received a deputation on the subject. If the question was renewed after Easter, Mr. Sclater-Booth would be able to give a definite reply.

Dr. Lyon Playfair proposes to ask the President of the Local Government Board whether he intends to introduce a Bill for the compulsory registration of births and for the better verification of the causes of death. This, as well as Mr. Beresford's motion for making more effectual provision for a constant water-supply to the metropolis, appears to have been postponed.

On Monday, March 30,

Dr. Lush expressed regret that the Prime Minister, in proposing a vote of thanks to the forces engaged in the Ashantee War, had omitted to mention the valuable services rendered by the medical staff. The skill and promptitude with which they, as non-combatants, had attended to the sick and wounded was worthy of all praise. It was well known that the success of the expedition depended to a great extent upon the policy adopted by the medical staff in conducting the troops through this malarious climate as expeditiously as possible.

Mr. Hardy explained that it was contrary to the rules of the House to single out one branch of the service for special commendation.

On Tuesday, March 31,

Mr. Disraeli, in reply to Mr. Russell Gurney's question about the intended reception of the body of Dr. Livingstone on its arrival in this country, explained that the Government having undertaken to bring the body over, must be left to take what steps they considered necessary with regard to the funeral.

MEMORIAL OF THE ROYAL COLLEGE OF PHYSICIANS ON OVERCROWDING.

We have received the following from the authorities of the Royal College of Physicians:—

"The memorial of the Corporation of the Royal College of Physicians of London to the Right Hon. B. Disraeli, M.P., First Lord of the Treasury, etc.,—

"Sheweth,—That your memorialists, in the daily exercise of their profession as physicians, are brought much into contact with the poorer classes of the population, and are deeply interested in everything that concerns the welfare of those classes, not only on account of the poor themselves, but also because the evils engendered among them often affect the whole of society.

"That it is well known to your memorialists that overcrowding, especially in unwholesome and ill-constructed habitations, originates disease, leads to drunkenness and immorality, and is likely to produce discontent among the poorer portion of the population.

"That it is within the knowledge of your memorialists, that the wholesale demolition of the houses inhabited by the poor, which has been carried on of late years, under various Railway and Improvement Acts, while it has been serviceable in removing many very bad streets and dwellings, has incidentally caused much distress to the persons displaced, and has almost uniformly driven them to crowd into neighbouring quarters which were already as full as, or fuller than was, consistent with healthiness.

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"That private enterprise is powerless to provide the fresh and improved house-accommodation which is required for those who have been expelled from their former habitations, in addition to that which is called for by the constant increase of the population, by reason of the impossibility of securing suitable sites for building. Even so rich and powerful a body as the trustees of the Peabody Fund has been repeatedly foiled in particular attempts to obtain land to build upon.

"That your memorialists believe that the mere enabling powers which are at present entrusted to various authorities, have proved, and must prove, insufficient to effect the desired object.

"That in the opinion of your memorialists a remedy for these evils is urgently required. They therefore venture to express the hope that you will favour them by holding out some prospect that this question of the dwellings of the London poor, upon which the health and morality of the people so much depend, will be taken up by Government in the present session of Parliament.

"And your memorialists will ever pray, etc.

"February 19, 1874."

LETTER FROM THE GOLD COAST.

(*From our Special Correspondent.*)

REPORTS OF CASES ON BOARD H.M. HOSPITAL SHIP "VICTOR EMMANUEL," CAPE COAST CASTLE.

Case 1.—*Dysentery—Improvement.*

CAPTAIN G., aged 34, service fifteen years, a volunteer for the Ashantee expedition, arrived at Cape Coast Castle in the latter end of September. Was attacked with dysentery early in December, while serving at the front. For this he was sent down-country, and ordered on board H.M. troop-ship *Tamar* for a cruise. He improved considerably at sea, and the dysenteric symptoms quite disappeared, only, however, to recur on his return to the Coast. Transferred to hospital-ship on the evening of January 2, in a very debilitated state, and suffering from dysentery in a sub-acute form. Skin bathed in sour perspiration; pulse 60, weak and jerking; respirations 22; temperature 98·5°; tongue flabby, and covered with a thick brown fur. On examination, he was found to complain of pain over the cæcum, extending along the course of the colon, and increased on the slightest pressure; occasional attacks of tormina; evacuations frequent, of a greenish-brown colour, offensive, and seeming to consist of mucus mixed with scybala. Ordered a small dose of castor oil with tincture of opium. January 4: Passed a very good night; bowels moved by the castor oil; alvine dejecta as before; no tenesmus, and only slight tormina; tongue very brown; pulse 54; respirations 22; temperature 98·4° at 8 a.m., and 99° at 5 p.m. Treatment exclusively dietetic—viz., sago pudding, eggs and milk, barley-water as a drink, six ounces of port wine daily, and, after, a little beef-tea and chicken-broth. He improved steadily under this treatment, and the bowel affection had quite subsided on January 9, when he left for England by the hired transport *Manitoban*, but his general health had suffered so much that he was recommended to spend the spring months at Lisbon, Mentone, or the South of France.

Case 2.—*Malarial Fever; Scorbutic Ulcers of the Legs—Improvement.*

Surgeon-Major G., aged 33, service fourteen years (of which four months on the present occasion on the West Coast of Africa), a volunteer, who had done good work and undergone much hardship in the front, was admitted to hospital-ship on January 3, from Connor's-hill Hospital, in a weak cachectic condition, the result of malarial poisoning, and suffering from extensive ulceration of both legs, of a distinctly scorbutic character. The ulcers on the right leg presented a foul fungoid appearance, but those on the left showed an inclination to heal. There were several patches of ecchymosis on both legs, but no looseness of the teeth or sponginess of the gums to be noticed. On January 5 the ulcers on the right leg were destroyed by nitrate of silver, and they were afterwards dressed with olive oil and carbolic acid. A liberal diet was prescribed, with fruit, lime-juice, and claret, quinine and iron being also administered. This officer had several attacks of ague while on board, consequent on which the ulcers assumed an unhealthy sloughing aspect, the edges becoming serpiginous and abruptly excavated, and their bases covered with a dirty brown slough, yielding a profuse offensive discharge. His general health became so much impaired as to render an early removal to England imperative, and he was accordingly invalided home by H.M. ship *Dromedary*, leaving Cape Coast for St. Vincent, Cape de Verde, on January 16.

Case 3.—*Exhaustion—Death—Post-mortem Examination—Bullet Encysted at the Base of the Heart.*

Captain B., aged 40, with long and varied foreign service, was admitted on board the hospital-ship at Cape Coast Castle on the afternoon of January 24, in a state of extreme prostration—so much so, indeed, that he was unable to give any account of himself. He was stated to have been suffering for some days previously from diarrhœa, "unaccompanied by any constitutional symptoms," and from nausea, and at times bilious vomiting. Added to this there was a great distaste for food of any kind, with extreme mental depression and general debility. The journey down-country from the front was extremely trying, as it involved being carried for several days together in a cot by untrained bearers over bad roads, and in addition to this he had the misfortune to be exposed in the transit to a severe drenching with rain. When he was slung on board he was in a condition of extreme debility; voice feeble and husky; pulse 120, weak and compressible; temperature 99·1°; tongue dry and brown; skin moist and clammy. On examination, the abdomen was found to be tender and tympanitic; there was much pain occasioned on pressure being made over the free margin of the liver, and under the false ribs of right side; respiration was feeble, and the heart-sounds just audible. Added to this there was great thirst and much irritability of stomach. He was at once ordered iced champagne, which was retained, jelly in small quantities was administered, and as a drink iced soda-water and milk. Hot stupes were applied to the abdomen, followed by spongio-piline. He rallied somewhat under this treatment, and, as he had not slept for twenty-four hours, and expressed himself as being worn out by want of rest, half a drachm of liquor morphiæ muriatis was given at bedtime. Rested badly; raving during the night, and in the morning was a little confused in his mind. The tenderness over the abdomen was less, and the irritability of stomach had almost gone, as he had taken and retained a fair quantity of nourishment in the shape of jelly, beef-tea, and iced milk and soda-water. The pulse, however, was still 120, thready, and dicrotous; skin clammy; and vital powers very low. Throughout the day he continued to take nourishment as above, with champagne, but no change in his condition was to be noticed. At 9 p.m. his pulse was 128, and very feeble; the same anodyne draught as before was given, and he slept for several hours during the night. Two men were in constant attendance upon him, taking their three hours' watch alternately. At 6.30 a.m. of the 27th a decided change for the worse took place, and when seen by a medical officer, who slept in the next cabin, he was evidently dying; he was pulseless; a cold clammy perspiration had broken out over the body; breathing was gasping, and in a very few minutes he expired, seemingly from sheer exhaustion.

Post-mortem Examination of the Body, four hours after Death.—External appearances: Body well nourished. An old circular scar, with loss of substance, and half an inch in diameter, was found in the skin above the right nipple, over the fourth rib, near its union with the cartilage. Chest: Cartilages of the true and false ribs uniting them to the sternum partly ossified, so much so that it was necessary to divide them with the saw in order to expose the contents of the thorax. Old pleuritic adhesions on the right side of the chest very strong, especially over the scar on the skin above referred to. The lower three-fourths of the fourth rib at its union with the cartilage showed marks of an old circular puckered cicatrix opposite that on the skin. Slight puckering of the apex of the right lung, but no appearance of a cicatrix on the surface or in the substance of the lung. Lungs healthy. Patches of atheroma were noticed in the ascending part of the arch of the aorta. Heart covered with a thick layer of fat. A small, hard, heavy circular body, about half an inch in diameter, which on examination proved to be a leaden bullet, was found encysted outside the pericardium, in the middle mediastinum, situated above the right ventricle, and between the origin of the pulmonary artery in front and the ascending part of the arch

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of the aorta behind. (Captain B. received a bullet-wound of the chest, at the spot indicated by the cicatrix, at Taranaki, New Zealand, on March 28, 1860, and was treated in the hospital of the 65th Regiment after the injury under the care of Dr. T. Esmonde-White, C.B.) Walls of left ventricle hypertrophied. Abdomen: Liver enlarged, congested, and friable; gall-bladder much distended; intestines and mesentery covered with fat; spleen much enlarged, soft and pulpy, with its capsule adherent; kidneys embedded in fat, structure healthy; small intestines full of muco-bilious matter; large intestines distended with fæces; slight congestion of the ileum, extending into the large intestines.

Case 4.—Sub-acute Dysentery and Fever—Improvement.

Captain L., aged 33, with fourteen years' service, of which nine have been spent in the West Indies, and four months on the Gold Coast. Admitted on January 27, with sub-acute dysentery, contracted a week previously, while serving up-country. The disease was complicated with malarial fever, and the tenderness of gums and their disposition to bleed showed the existence of a scorbutic taint. Tongue foul and coated; pulse 88; temperature 99·4°; tenderness over the right iliac region, with tympanites; bowels relaxed, stools scanty, consisting of mucus and fæculent matter tinged with blood, and attended with tormina and slight tenesmus. Treated with small doses of castor oil and laudanum, followed by a combination of quinine and Dover's powder, turpentine stupes to abdomen, farinaceous diet, beef-tea in small quantities, milk and soda-water. He improved slowly until February 2, when he had a sharp attack of intermittent fever. Quinine was increased from three to five grains twice a day, in combination as before with Dover's powder eight grains; and twenty-five grains of hydrate of chloral were given at bedtime. He had an abortive attack of ague on the afternoon of the 4th, ushered in by vomiting. As his general health was much impaired and the climate of the station was at this time very trying, he was recommended change of climate, and embarked on February 5 for England on board the hired transport *Elizabeth Martin*. On arrival at home he was advised to pass the spring months at Gibraltar, Lisbon, or Mentone.

Case 5.—Sub-acute Dysentery and Fever—Improvement.

Assistant-Commissary E., aged 39, with twenty-three years' service, of which the last twenty were spent at home, and three months on the Gold Coast. Admitted on January 30 with symptoms of sub-acute dysentery, contracted ten days before in the bush, where he had undergone much exposure and fatigue. This case was also complicated with malarial fever, but there was nothing to indicate the presence of scorbutus. He was treated by quinine and Dover's powder, with a very carefully regulated diet and port wine, and improved steadily until February 4, when he was invalided by a medical board, and embarked for England on board the hired transport *Sprite*.

Case 6.—Acute Dysentery and Fever—Death—Post-mortem Examination.

Private W. S., 2nd Battalion Rifle Brigade, aged 27; service three years. Landed at Cape Coast Castle with his regiment on January 1, and marched with it to the front. On the evening of January 21 he was attacked with remittent fever, sent down to Cape Coast Castle, and admitted to H.M. Hospital-ship *Victor Emmanuel* on the evening of the 30th of the same month. On admission he was very pale and weak, but free from fever, and able to walk about. He did not exhibit any signs of a scorbutic taint. During the night of the 31st he was attacked with diarrhœa, unaccompanied by abdominal pain, tenesmus, or pyrexia, which continued, however, so slight as not to occasion any uneasiness until the evening of February 3, when suddenly high fever set in without any preliminary cold stage. This was characterised by great heat of skin, temperature rising from 98·2° to 105·4°; congestion of eyes, suffusion of face, and severe frontal headache. The bowels continued loose, but there was no abdominal pain, even on pressure. Towards the morning of the 4th the pungent heat had gone, the skin became moist, and the temperature fell to 104°; but the headache and congestion continued, as did the relaxed state of the bowels, which were moved four times during the night. Tongue was red at the edges, but furred down the centre; no gastric irritability, no tenesmus, and no evidence of pain on pressure being made over the abdomen. Quinine was now given in ten-grain doses, and thirty grains were administered between early morning and 4 p.m. The symptoms did not change during the day; he took a little beef-tea and wine; in the evening the temperature was still 104°, bowels were quiet, and skin moist, and he no longer complained of headache. Slept a little during the night. On the morning of the 5th, temperature had gone up to 104·6°, and some irritability of the stomach was evinced, but this was not so great as to cause it to reject the quinine, of which he took twenty grains before noon. About 3 p.m., severe vomiting set in, a little bilious fluid alone coming up. At the same time the abdomen became very tender all over, and the bowels were moved every half-hour, the motions consisting of a little chocolate-coloured fluid, which was passed without any straining. Severe pain was now felt on pressure being made over right iliac fossa. Counter-irritation was applied, with the effect of relieving for a time the irritability of the stomach, but throughout the night the bowels were moved very frequently. On the morning of the 6th the temperature had fallen to 100°, there was less vomiting, and the pain in the abdomen appeared to be relieved. The looseness of the bowels, however, continued, and the same chocolate-coloured fluid was passed. He was able to retain beef-tea, iced drinks, and brandy. In the evening, vomiting had quite ceased, the temperature had risen to 102·2°, and the patient appeared to be much prostrated and falling into a typhoid state. Became delirious during the night, and passed several motions in bed; matter passed was of the same colour, and very offensive. On the morning of the 7th, temperature had fallen to 100·4°, the skin was cold and clammy, features pinched, tongue red, dry, and pointed, and every sign was present of great general depression; no abdominal tenderness or swelling was to be noticed, but the involuntary stools continued in character as already described. Notwithstanding the liberal administration of beef-tea and stimulants, he never rallied after this; delirium set in towards evening, and at 2 a.m. of February 8 he expired.

Post-mortem Examination was made of the body eight hours after death. As the abdominal viscera alone presented signs of disease, no notice is here taken of the state of the other organs. The stomach was found to be congested in irregular patches of a bright pink tint. Duodenum and upper part of small bowel, down to within a foot of the ileo-cæcal valve, normal. Here the bowel presented a dark livid colour; the mucous membrane was almost black, and granular-looking; the bowel was much increased in thickness. Glands not evident, except just above the valve, where one or two were prominent and had commenced to ulcerate. The cæcum and first eight inches of colon were of a dark colour; mucous membrane thickened; glands dark and prominent, but not presenting signs of ulceration. The remaining portion of the colon was simply congested, the vascularity becoming less towards the rectum, which was healthy. Liver normal in size, pale in colour, and very friable. Spleen small, of a deep purple colour, and soft and pulpy consistence. Mesenteric glands enlarged and congested. The cut muscle presented the peculiar purplish colour met with in cases of death from enteric fever.

Case 7.—Abscess of the Liver and Dysentery—Death—Post-mortem Examination.

Private A. S., 42nd Highlanders, aged 39, but looking considerably more, with a total service of eighteen years, of which ten were spent in India and two months on the Gold Coast, was admitted to hospital-ship on February 24 in a very prostrate condition, suffering from dysentery contracted three weeks previously near Coomassie. The disease commenced as diarrhœa, and he attributed its origin to a severe wetting received on the downward march. He suffered greatly on the road, and was almost moribund when taken on board. Stools frequent, and attended with much pain and tenesmus; of a brownish colour, seemingly composed of serum tinged with blood, and very offensive. Had a bedsore over the sacrum, and complained of pain and marked tenderness on pressure over the ileum and colon. Stimulants were at once administered, with milk, beef-tea, and chicken-broth; fomentations applied; Dover's powder given internally, and starch and opium by the rectum. He never completely rallied, and ultimately sank on the morning of March 1.

Post-mortem Examination, four hours after Death.—External appearances: Body much emaciated. Head and chest: Nothing deserving special notice. Abdomen: A large abscess, three inches in diameter, and circumscribed by pyogenic membrane, was found in the right lobe of the liver, containing about eight ounces of purulent matter; a second was found between the right and left lobes, involving both,

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five inches in diameter, containing about twelve ounces of purulent fluid, and also lined by a pyogenic membrane. Both abscesses were on the very point of bursting on the upper surface of the liver. Remaining structure of liver of a nutmeg appearance, and apparently healthy; capsule adherent. Spleen very small; substance firm, and capsule adherent. Right kidney normal; left congested in its pyramidal portion. Patches of congestion in the mucous membrane of the stomach. Small intestines healthy throughout. Caput cæci thickened, dark, and gangrenous-looking, studded with oval and circular ulcers varying in size from a line to half an inch in diameter; the long diameters of the oval ulcers being at right angles to the axis of the bowel. Dark separating sloughs in the ascending colon, which contained numerous ulcers of a circular form half an inch or so in diameter, and with thickened, regular, and undermined edges. Two circular ulcers of the same character, three-quarters of an inch in diameter, were found in the sigmoid flexure of the colon. Rectum free from ulceration. Coats of the large intestine generally thickened.

(To be continued.)

FROM ABROAD.

The Census of France for 1872.

In some recent numbers of the *Journal de la Société de Statistique de Paris*, we find an interesting summary of the general results of the last Census, the report on which has just been published by the French Government.

1. *Comparison of the two last Censuses.*—The enumeration of the population of France, effected by the mayors of the eighty-six departments during the month of May, 1872, furnished a total (including the military and naval forces, counting 374,711 men), of 36,102,921 souls. The census of 1866 comprising eighty-nine departments, furnished a total of 38,192,064. If the disasters of 1870-71 had not occurred, and if the population had only increased during 1867-72 as it did during 1861-66, by 816,900, there would have been a total of 39,008,964—*i.e.*, of 2,906,043 more than really exists. The diminution caused by the Alsace-Lorraine annexation amounts, according to the census of 1866, to 1,597,238, while the total diminution in the territory now occupied by France is 491,405, or 1·29 per cent. This diminution was caused, independently of the war, by the ravages of small-pox which prevailed in many departments, and the deficiency of births in 1870 and 1871, owing to the decrease of marriages. This diminution prevailed, though in unequal proportions, throughout all France, with the exception of thirteen departments in which population increased. But while the entire population of France diminished, towns of more than 10,000 souls, on the contrary, acquired a marked increase. But in these towns, while their agglomerated parts have only increased by 1·92 per cent., their suburbs (in which living is cheaper by escaping the *octroi*) have increased by 8·66 per cent.

2. *Inhabitants per Square Kilometre.*—By treaty France lost 14,474 square kilometres, its actual superficies being reduced to 528,576 kilos., and the number of inhabitants per square kilo., which in 1866 was 70·10, is now 68·30. Comparing at an interval of thirty years the departments in which the population is most dense with those in which it is the least so, it is found to have increased in the former and to have decreased or remained stationary in the latter.

3. *Urban and Rural Population.*—Dividing the population of France into urban—*i.e.*, all communes having more than 2000 agglomerated inhabitants—and rural, the census of 1872 exhibited an urban population of 11,214,017 and a rural population of 24,888,904. Besides an augmentation produced by the increase of births over deaths, the urban population also increases by immigration of the rural population and by the passage of a certain number of rural communes, through increase of population, into the category of towns. The result is that during the last thirty years the urban population has been continually increasing; so that while in 1846 it formed 24·42 per cent. of the population, in 1872 it formed 31·06 per cent.

4. *Ménages and Houses.*—By *ménages* is understood, for census purposes, not families, but individuals, whether married or not, with or without children, occupying a distinct *logement*. The number of *ménages* so defined in 1872 was 9,525,717. These correspond to the domiciled population properly so called (*i.e.*, excluding the inhabitants of hospitals, monasteries, colleges, etc., and the forces by sea and land), which was 35,312,945 souls. A *ménage* therefore comprises as a mean 3·71 persons. In spite of the restriction placed on the word "*ménage*," there exists so great an analogy between *ménages* and *familles*, that the number of individuals per *ménage* is in almost every department proportionate to the fertility of marriages. Under the designation *houses*, constructions intended for habitation are alone comprised, to the exclusion of workshops, warehouses, etc. The total number was 35,867 public edifices employed for general purposes (besides 80,814 houses wholly or partly occupied by public establishments), and 7,704,913 houses, properly so called. The mean number of these per kilometre is 14·47, and a house contains 1·24 *ménage* and 4·68 inhabitants. Thus, as a general rule, a house accommodates but one or at most two *ménages;* and a greater number per house is only met with in the departments of the Seine and the Rhone, and some of the departments in the South. These departments are also those (especially that of the Seine) in which the houses have the greatest number of storeys.

5. *Origin and Nationality of the Population.*—In 1872, there were returned 30,676,943 individuals as having been born in the department in which they were enumerated; 4,543,764 as born in other departments; 126,243 Alsaciens-Lorrains who had *opté* for French nationality; and 15,303 naturalised foreigners—being a total of 35,362,253 (97·97 per cent.) French. There were also 730,844 (2·03 per cent.) foreigners residing in France. It results that 85 per cent. of the inhabitants were born in the departments in which they were enumerated, and 15 per cent. either came from other departments or from abroad. The population of the department of the Seine is the only one in France that contains a population of extraneous origin superior to its indigenous population—for 36 individuals born in the department, 64 immigrate from beyond it.

6. *Population according to Religious Belief.* — Catholics, 35,387,703 (98·02 per cent.); Protestants (Calvinists 467,531, Lutherans 80,117, other sects 33,109), 580,757 (1·60 per cent.); Jews, 49,439 (0·14 per cent.), other non-Christain sects, 3071 (0·0·1 per cent.); individuals who observe no form of worship, or this has not been returned, 81,951 (0·23 per cent.). The separation of Alsace-Lorraine has led to a considerable diminution of the proportion of French Protestants and Jews.

7. *Population in relation to Education.*—From an examination of the returns, it results that there were—

	Under 6 years.	Between 6 and 20.	Above 20.	Means of the last two categories.
Unable to read or write .	88·85	23·89	33·37	30·77
Able to read only . .	7·33	13·48	9·99	10·94
Able to read and write .	3·82	62·63	56·64	58·29
	100·00	100·00	100·00	100·00

It results that nine-tenths of the children, more than a fifth and less than a fourth of the young persons under twenty, and more than a third of the population after it has attained its majority, can neither read nor write. Placing the young children aside, it may be said that thirty-hundredths of the population are entirely devoid of instruction. For males this proportion is 27·41, or more than a fourth; and for females 33·47, or about a third.

8. *Sex and Civil Condition.*—The census of 1872 returns 17,982,511 individuals of the male sex (49·81 per cent.), and 18,120,410 of the female sex (50·19 per cent.), corresponding to a little more (99·24) than 99 males to 100 females. This proportion of the sexes has varied sensibly since 1806. In 1821—that is, after the great wars—the female preponderance reached its maximum, and since then continually decreased, so that in 1866 the male sex tended to surpass it. The late events have restored the excess of females. The 36,102,921 are thus distributed:—Children (male 5,876,089, female 4,807,427), 10,682,516; adult celibates—*i.e.*, above 18 for males and 15 for females—(male 3,755,367, female 4,037,341), 7,792,708; married (male 7,344,519, female 7,316,730), 14,661,249; widowed (male 1,007,536, female 1,958,912), 2,966,448.

9. *Ages.*—On comparing the tables of ages of the census of 1866 with that of 1872, it is found that the diminution of population is thus distributed with regard to age:—For children under 15 it is 4·75 per cent.; for adults between 15 and 60, 6·28 per cent.; and for aged persons above 60, 1·60 per cent.;

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being a total of 5·34 per cent. We have not space for the insertion of the table of population according to ages, but we may remark that the number of centenarians returned is large indeed, since after stating that there were 2036 individuals between 95 and 100, the table gives 190 (70 males and 120 females) as the number of centenarians. The mean age of the population has continued to slowly increase at each census, this being 30 years 11 months in 1851, and 31 years 8 months in 1872.

10. *Occupations.*—For the details concerning these we have not space. It results from the figures produced that more than a half of the population lives by agriculture and the occupations appertaining to it. The industrial population is nearly a fourth of the classed population, while commerce represents one-eighth of this.

PROVINCIAL CORRESPONDENCE.

SCOTLAND.

EDINBURGH, March 30.

DR. CHARLES BELL AND THE ROYAL MATERNITY HOSPITAL.

In a city like Edinburgh, where so many people devote themselves almost entirely to charitable work, it may be assumed that our public charities are not likely to suffer from undermanagement.

This is particularly the case with those medical institutions which have a board of managers, a ladies' committee, and a medical board. The danger, if there is any, is quite in the opposite direction—that what is done in such places might as well be done on a house-top, for it cannot be hidden. Yet it would now appear that, in spite of the vigilant surveillance of a board of managers, a ladies' committee, a medical board, and a highly distinguished medical staff, such an institution may be one of the dark places of the earth, full of horrid cruelty!

This is the impression which Dr. Charles Bell's attack on the Edinburgh Royal Maternity Hospital was calculated to produce on the minds of a horrified Edinburgh public when his first letter appeared in the *Scotsman* on the morning of March 16. What a catalogue of horrors it discloses! "If ye have tears, prepare to shed them now."

Under the very eye—nay, with the connivance—of managers, medical board, ladies' committee, medical staff, matron, and resident physicians (always excepting Dr. Charles Bell), we find "patients who were only a few days confined" "turned out of their beds and ordered to leave the Hospital," and nurses "obliged to lie on the recently washed floor when there were plenty of iron bedsteads they might have used." "Violent language" was "made use of by the matron in the hearing of the patients and nurses." "The poor patients" were made to lie "on beds so disgustingly filthy and covered with vermin, that Dr. Bell was cautioned not to go near the one in the labour-room; while it and others were so scantily supplied with bedding that the iron spars at the bottom were very scantily covered." "Drinking" was "carried on," and "had been the cause of one child falling a sacrifice." "The expense of the Hospital" was "inordinate," and yet "the patients were scantily supplied with proper food." "The children of several women" were taken from them against their will and sent away they knew not where, and every information "refused to them." "The dead children, in place of being sent to the churchyard," were "allowed to lie about the ward for days, then either buried in the waste ground of the Hospital or *burned*, producing such an offensive smell that the nurses were obliged to go out into open air to escape from it."

Against all this, Charles Bell—saviour of woman- and infant-kind,—unable to bottle up his philanthropic emotions for more than one year—(alas! what a burden to such a conscience that one year of silence must have been, with the tide of wickedness flowing on in that devoted Hospital unchecked!)—has at length found himself compelled to protest.

There was good reason for protesting at this precise time; for, after a long period of pecuniary difficulty with which this Hospital has had to contend, the current of prosperity seemed about to set in.

The Simpson Memorial Committee had offered to place the sum of £2500 at the disposal of the managers for the erection of a new hospital, with which Sir James Simpson's name should be associated, provided the public contributed a similar sum; and there seemed to be every likelihood of this sum being realised. The possibility of the public contributing their money to the promotion of such nefarious practices was more than Dr. Charles Bell could stand. He therefore determined at once to launch his thunderbolt. But lest some ignorant reader of the *Scotsman*, unaware of the gigantic proportions of Dr. Charles Bell compared with such mere men as Dr. Keiller, Dr. Ziegler, Dr. Matthews Duncan, and Professor Simpson, should question the right of the said Dr. Charles Bell to launch thunderbolts, he introduces himself in the following modest terms:—

"I became one of the ordinary obstetric physicians about eight years ago, at the urgent request of the late Sir James Simpson, and I performed the duties in such a manner as to give entire satisfaction to the former directors, as is amply proved by their minutes, and by their appointing me to give clinical lectures to the pupils. In addition to these I established a system of vaccination by which hundreds of the community were benefited, while the funds of the institution were increased, and all the children in the Hospital had the blessing of vaccination conferred on them, which many of them, in all probability, would never have received, as a large majority of them were illegitimate. But the matron, who ruled the directors, disapproved of vaccination being performed in the Hospital, and it was discontinued. I introduced many other improvements, which, by the will of Providence, had the effect of reducing the mortality among the mothers from 1 in 55 to 1 in 223, and from 1 in 4 among the children to 1 in 29. Contrast this state of matters with the mortality during the past year, and you will find a sad difference, the deaths being 1 in 21 of the patients delivered in the Hospital."

Regret must have filled the heart of every reader of Dr. Bell's epistle, to learn that he was "rudely requested by the directors to cease to be one of the ordinary physicians of the Hospital," and that that important institution was left to the tender mercies of such men as Drs. Keiller, Ziegler, Matthews Duncan, and Professor Simpson, with a manifest loss of many valuable lives, which might have been avoided had Dr. Bell's services been retained.

Yet, although Dr. Bell does not say so, he must surely have breathed more freely when he escaped from his connexion with this chamber of horrors? It does no small credit to his philanthropy and willingness to sacrifice himself on behalf of suffering womankind, that he manifested the greatest reluctance to allow the Hospital to be deprived of his services, and the death-rate to revert to the level natural to it without his assistance.

How exquisitely this reluctance is suggested by the statement that he was "rudely requested to cease to be one of the ordinary physicians of the Hospital"! We find, indeed, on examining into the facts of the case, that we are right in assuming from it that delicate hints from the directors as to the advisability of Dr. Bell, for his own peace of mind, resigning his connexion with the Hospital were given, and *not* taken before he was asked in plainer terms to do so.

It is really impossible to discuss seriously an attack which is in itself a *reductio ad absurdum*, and which derives its sole importance from the fact that the managers are at present endeavouring to raise a sum sufficient to erect a new Maternity Hospital worthy of the metropolis of Scotland.

The directors, in the *Scotsman* of March 14, gave the following emphatic reply to his allegations:—

"Chambers, 39, St. Andrew-square,
"Edinburgh, March 13, 1874.

"Sir,—The Directors of this Hospital have had their attention called to a letter in your columns from Dr. Charles Bell, in which charges of the gravest kind are, by implication, brought against the directors and officers of the institution. The directors in the most emphatic manner certify that these charges are either grossly exaggerated or are utterly without foundation.

"On April 15, 1873, a letter of a similar nature, and adducing the same charges, was sent to the Lord Provost by Dr. Bell; these charges were then fully investigated by a committee in presence of Dr. Bell, who received every facility for substantiating them, and the result was that they were found to be groundless, and as to most of them, Dr. Bell expressed his satisfaction with the explanations.

"Previous to the appointment of this committee, the directors had found it necessary to suggest to Dr. Bell the propriety of his resigning his position as one of the medical

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officers. After receiving the report of the committee, the directors resolved that Dr. Bell's connexion with the Hospital must cease. Since that time they have had every cause to be satisfied with the manner in which the duties of the Hospital have been discharged by the medical staff, and by those immediately in charge of the institution.

"By order of the Directors,

"J. Turnbull Smith, Secretary."

It is needless to wade through all the charges which Dr. Bell prepared; one or two examples will suffice. In his reply to the foregoing letter, he publishes two letters from injured parties in support of his statement that children were taken away from their mothers and sent they knew not where.

In regard to the first of these, it turns out on investigation that "the mother has expressed her regret at the statement she made, which was given to Dr. Bell (she states) at his urgent request, to injure a former matron; and that she would not have given it had Dr. Bell not pressed her and told her what to say." Her "child was taken charge of by the father, with the mother's consent."

"In regard to the second case," "the child was taken charge of by the patient's mother; but, as the patient fretted without her infant, the child was, at the suggestion of the matron, given back to the care of its mother."

The second letter which Dr. Bell publishes, and which is written by a nurse, supports, in addition, his allegation that between October 25 and January 14, 1873, "a great number of the dead infants were not buried, but lay in the delivery-room till it was quite sickening to go into it. When they lay about for days they were burned, and the smell was something frightful," etc.

In reference to this charge the directors found that during nearly the whole of the period in question—viz., during November and December, 1872—Dr. Bell was the medical officer on duty, and that, if matters were as the nurse and he state, he "was alone responsible, and has committed a very grave dereliction of duty in not bringing the matter before the directors at the time."

Dr. Bell, in a third letter, asserts that during the time he was on duty *no child died*. So we must believe that it was during the last six days of October, 1872, or the first fourteen days of January, 1873, that all this lying about of a great many dead bodies for days and burning of them afterwards took place! But this is quite in keeping with the extraordinary fluctuations in the mortality at the Hospital which Dr. Bell has observed to take place in relation to his connexion with or absence from it.

We will only offer one other example of the foundations on which Dr. Bell is contented to rest grave accusations.

He "objected to the conduct of the matron often leaving the patients and nurses to their own resources; to her taking it upon her to remove the patients from the old Maternity to the present Hospital, in opposition to the expressed opinion of the medical officers, when it was not in a fit state to receive them, as it had not been properly cleaned after the small-pox patients left, and some of their clothes were still lying about; and in so doing she stated that she acted by my orders."

In the admirable statement which the directors have published in reply to Dr. Bell's charges, we find the following conclusive and rather amusing answer to the above assertions:—

"The medical officers never expressed an opinion in opposition to the removal of the patients to the new house. Dr. Bell hurried on that removal, as he wished it carried out before the close of December, while he was on duty; which could not, however, be done, as the new house was not ready to receive the patients. The removal took place in the first week of January, and, at a meeting of the Medical Board, held on January 8, at which Dr. John Moir, Dr. Matthews Duncan, Professor Simpson, and Dr. Bell were present, it was minuted:

"'The Secretary mentioned that he had called the present meeting to consider the arrangements that had been made in the new Hospital. He explained that he would have called the meeting sooner, but that the removal from the old house was necessarily carried out by degrees, and could not be effected at one time. The present meeting would therefore have now to decide whether the arrangements which had been made on behalf of the patients, and the general condition and state of the Hospital, were such as would meet with their approval. The Board, having inspected the wards and other rooms, authorised the Secretary to minute that they approved of the arrangements which had been made, and were of opinion that the purposes of the Hospital could now be carried out satisfactorily.'

"When the Medical Board and House Committee inspected the new Hospital, previous to the removal to it, the only article of clothing which they saw was an old hat which had belonged to a policeman. It is presumed this is the clothing belonging to small-pox patients to which Dr. Bell alludes."

Tracing the whole matter up to its origin, we find that so long ago as May, 1872, it was felt by the directors that Dr. Bell was in the habit of interfering in matters with which he had no legitimate concern.

The directors had the matter more than once under their consideration, and had on one occasion resolved that no notice should be taken of Dr. Bell's proceedings, on the understanding, however, that if he continued to give annoyance without good cause, the matter should again be brought before the directors, in order that he might be dealt with by them.

Dr. Bell would appear to have persisted in the line of conduct complained of, for in February, 1873, the House Committee were obliged to remind Dr. Bell that it was necessary for the proper conduct of the Hospital that there should be harmony among the officials connected with it, expressing also the hope of the directors that Dr. Bell would assist them in securing this, and suggesting finally that if Dr. Bell felt himself unable to work thus harmoniously, it might be more for his own peace of mind that he should discontinue his connexion with the Hospital.

At the annual meeting held on March 10, 1873, Dr. Bell, though still one of the medical officers, appeared, and made an attack in connexion with a supposed disappearance of iron bedsteads, and dissented from the motion that the annual report should be approved of. The attention of the Ladies' Committee was directed to this matter by the matron, Mrs. Cornwell; and after a minute and careful investigation the bedsteads were found correct as to number, and the bedding to be all clean and in good order; also the number of mattresses corresponding to the inventory given to Mrs. Cornwall.

Dr. Bell next addressed a long letter to the Lord Provost, of date April 7. The directors replied to it on April 15, giving explanations very much the same as those in the statement which has recently been circulated. A committee met on April 17, and investigated any statements as to which they were not in possession of full information; and on April 22, 1873, the directors met, nine being present, with Lord Provost Cowan in the chair. The following resolution was passed:—"Having in view the whole circumstances of Dr. Bell's position in regard to the Hospital, this meeting unanimously resolves that his connexion with the Hospital as one of the ordinary obstetric physicians must cease"; and the Secretary was requested to communicate this to Dr. Bell by sending him an excerpt from the minutes.

Dr. Bell afterwards wrote to Dr. Keiller, asking him to call a meeting of the Medical Board for the purpose of ascertaining the reasons of his dismissal. The Board, at a meeting, June 3, 1873, resolved to remit the letter *simpliciter* to the directors, with a request for an answer to this minute for their guidance. At their meeting on July 1, 1873, the directors took up the remit from the Medical Board and answered as follows:—"The meeting think it right to explain to the Medical Board, that had the reasons for the directors requesting Dr. Bell to discontinue his services in that capacity been in any way connected with the performance of the duties proper to his position as one of the ordinary obstetric physicians, the directors would have been glad to have communicated with the Medical Board before coming to the resolution they did; but as their resolution proceeded on grounds unconnected with Dr. Bell's duties, and in no way reflecting upon his professional reputation, they think it better not to enter into particulars in regard to his actings, of which, however, the directors believe the ordinary physicians are generally well acquainted."

The Medical Board met on July 4, when they resolved to send a copy of the excerpt from the directors' minutes to Dr. Keiller, in order that he might communicate it to Dr. Bell.

The next appearance of Dr. Bell in this connexion was in the *Scotsman* newspaper, of date March 10, 1874.

A very ample statement in reply to the charges brought against the Hospital by Dr. Bell has been printed and circulated by authority of the directors.

I have heard only one opinion on the subject expressed by members of the medical profession in Edinburgh, and it is that Dr. Bell has been guilty of a decided breach of professional propriety in writing as he did to a public newspaper.

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Unquestionably the outcome of the discussion which he has raised is already felt to be this: the tale of horrors turns out to be a myth; public attention is directed to this unpretending and too much neglected charity; purses that would have remained closed are opened; in a shorter time than might otherwise have been the case the £2500 will, I have no doubt, be forthcoming, which will enable the directors to claim the £2500 of the Simpson Memorial Fund; and ere long we may hope to see the new Simpson Memorial Hospital built and flourishing, and owing its success partly to the misdirected energy of Dr. Charles Bell.

GENERAL CORRESPONDENCE.

THE OPEN TREATMENT OF WOUNDS.

LETTER FROM MR. RICHARD DAVY.

[To the Editor of the Medical Times and Gazette.]

SIR,—The open treatment of wounds has been practised amongst my surgical cases for the last five years; the results arrived at have been gratifying, and my firm conviction is that all so-called dressings to the majority of wounds are not only needless but injurious.

Amputations, resections, wounds for removal of tumours, injuries, etc., are exposed freely to the atmosphere of the ward. The exceptional cases that receive dressings are burns, scalds, and subcutaneous operations.

The treatment that our wounds are subjected to consists in their adjustment by metallic suture; the atmosphere surrounding the bed is jealously attended to, as to purity and temperature; the surface of the sore is occasionally cleansed by an aqueous spray (the most delicate brush, that destroys itself by usage); the margins are gently freshened up by a small hog's bristle brush (a separate one for each patient), dipped into clean tepid water.

From a surgical-teaching point of view nothing is so charming as that of open treatment, for teacher and pupil can at all times inspect a wound and its surroundings without detriment to the patient; the actual pain, nervous apprehension, loss of blood, and inconvenience to the patient are minimised. Nothing militates more against recovery than that granulating surfaces should be interfered with. A wound needs ventilation, and cicatrises well in presence of it; to confine the air of a wound by dressings without antiseptic treatment is thoughtless, yet for the present I would prefer pinning my colours to the open treatment of wounds than to the antiseptic details of Lister. I am, &c., RICHARD DAVY, F.R.C.S.

33, Welbeck-street, W.

CONTAGIOUSNESS(?) OF LEPROSY.

LETTER FROM DR. W. J. VAN SOMEREN.

[To the Editor of the Medical Times and Gazette.]

SIR,—Last week I read an article in the last number of the *British and Foreign Medico-Chirurgical Review* regarding two or three points about leprosy on which I have not touched in my narrative, and I scarcely like to allow them to pass altogether unnoticed.

1. *Its Contagiousness.*—I am surprised that this should still be a moot point! All the records and experience of the Madras Leper Hospital run counter to it! I have never had the least proof of its communication in this way from one leper to another, and in my inquiries into the history of the disease, those affected with it have been singularly reticent regarding its origin by contact, if they believed they thus contracted the disorder. Then, again, if leprosy be rather a diathesis than a disease, its origin by contagion must of necessity be discarded.

2. *Its Communicability by Sexual Congress.*—On this point I feel doubtful. In my hospital there have been three cases, in which husband and wife are affected, and either the one or the other became so after cohabitation, though well before. But there are so many instances of cohabitation of husbands and wives with leprous wives or husbands not being followed by leprosy, that I require more data before coming to a conclusion in this matter. The officer of high rank in our department to whose case you have referred,(a) never infected his wife, who died free from the malady. I knew a person whose wife was leprous, and she never infected him. There was lately a woman in the Lazaretto who cohabited as a leper for some time with her husband, who died untainted. And such cases make one suspect that where leprosy follows cohabitation the former may not be the effect of the latter.

3. *Can Inoculation of a Leper's Blood, or of Matter from a Leprous Ulcer, produce Leprosy?*—All the experience of this Leper Hospital negatives the suggestion. In no instance has a single attendant accustomed to wash and dress the lepers' sores contracted the malady. I punctured my left index finger when amputating a leper's leg below the knee more than sixteen years ago, but have betrayed no symptom of the diathesis.

In conclusion, I must tell you that you have brought me over to your views of the identity of the leprosy of scripture with *lepra Græcorum*. Having inconsiderately confounded the ceremonial uncleanness of lepers with asserted or implied contagiousness, and knowing that leprosy is not contagious, I doubted the identity of the one with the other. Your arguments have convinced me. I am, &c.,

Madras, February 16. W. J. VAN SOMEREN.

(a) This and the following part of Dr. Van Someren's letter refer to the first part of a paper on Leprosy by our correspondent at Madras, *Medical Times and Gazette* for December 6 and 13, 1873.

REPORTS OF SOCIETIES.

EPIDEMIOLOGICAL SOCIETY.

WEDNESDAY, FEBRUARY 11.

Inspector-General Dr. W. R. E. SMART, C.B., Royal Navy, President, in the Chair.

DISCUSSION ON THE VALUE OF QUARANTINE IN RELATION TO EPIDEMIC CHOLERA.

To commence the proceedings, Dr. GAVIN MILROY read his propositions on Quarantine in relation to Epidemic Cholera, which have already appeared in our columns:—1. As quarantine is a practical question, its value or otherwise can only be determined by the results of experience, independently of theoretical considerations. In respect of cholera, there has already been ample experience acquired in this and in other countries during the successive European epidemics since 1831 to test its value both by sea and land. 2. In 1865 the Council of this Society declared their opinion to the then President of the Privy Council that quarantine, as enforced in many Continental countries and in our own colonies, afforded no trustworthy protection against the invasion of cholera, while it served to create false expectations of defence, and to foster neglect of internal sanitary precautions. 3. In 1866 an International Conference was held in Constantinople. The conclusions of the Conference in relation to quarantine, adopted by a majority of the members, have never been accepted by the most experienced men in this country. They are quite at variance with the opinion expressed by the Council of this Society in the previous year. 4. The detailed history of the outbreak of the disease in 1866 in a single one of the West India Islands—viz., in the French island Guadaloupe—and of the circumstances which preceded the outbreak, and of the different conjectures respecting the supposed importation of the disease by a vessel from France, shows how inexact and misleading is the evidence that is too often accepted concerning the origin of epidemic occurrences. 5. The existing state of quarantine legislation and quarantine practice in our own West India Islands is extremely faulty, and urgently demands revision. It well deserves consideration by the Council of this Society, whether the attention of the Secretary of State for the Colonies should not be directed to this important subject of State medicine. 6. The quarantine order of our own Government, issued last summer, in respect of the precautionary measures to be adopted towards infected or suspected arrivals in our ports, might form the basis of sound legislative enactments on the subject in all our colonies. The order in question will be regarded by Continental upholders of quarantine as a virtual condemnation of the system approved of by them. 7. The more thoroughly the subject of quarantine in relation to cholera is investigated, the more exact and instructive will be the information we acquire touching various points in the natural history of that pestilence which are still obscure and uncertain.

The discussion was opened by Inspector-General Dr. JOHN MURRAY, who said: In discussing quarantine we shall h-

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arguing in a circle if we have not a clear definition of the meaning of the word. A knowledge of the danger which has to be averted, and of the practical objections to measures which may be proposed on sound scientific principles, is also necessary. No professional skill is required to determine the latter point; but the nature of the disease is a purely medical question, and the whole question hinges on the disease being contagious or not—meaning transmissible directly or indirectly. Without a definite opinion on this point, it must be a mere waste of time to discuss plans for averting a danger the existence of which is denied by the speaker. In England quarantine is limited to protection from importation of the disease by ships. On the Continent, at the Constantinople Congress, it was extended to protection by land as well as by sea. In India it includes protection by land and sea, and also from the tainted locality; for in my opinion quarantine includes all measures employed to ward off the attack of a contagious disease, or to check its diffusion. Measures of this nature have been extensively carried out in India since cholera has been recognised as contagious; and as I have been intimately connected with this view and with these measures, I have carefully watched their operation, and the result may be useful in considering similar means to be employed for the same purpose in other countries. They may be divided into three distinct branches:—(1) Those relating to the exclusion of the disease; (2) those that tend to the restriction of its dissemination when it has entered; and (3) those employed to evade the danger by removal from an infected locality. Under the first head the means employed in India were to divert the course of suspected travellers outside towns and cantonments, and by cordons to prevent the admission of suspected individuals until after some days' detention. The result of this measure has not been found satisfactory, more especially in reference to large open towns. The great inconvenience to the people, combined with the pecuniary loss on commercial transactions, is generally considered to counterbalance the advantage of the security that can be afforded; and this is diminished by the facility with which the cordon can be evaded. In the case of towns these quarantine regulations should certainly be modified if not abolished. The intercourse with military cantonments is more limited and more under control. In many instances the disease raged in the districts while the troops remained free; and this was attributed by the medical officers to the employment of cordon lines outside the cantonments and the prohibition of the soldiers visiting the neighbouring cities when the disease prevailed. But very free intercourse is essential for supplies, and the difficulty of detecting the disease in its earlier stages is so great, that the cantonments were very often attacked; so that it is a matter for consideration how far this system of exclusion should be continued. No public thoroughfare should pass through a cantonment, and the men should be prohibited visiting infected places; but probably other restrictions on intercourse are more vexatious than useful. The intercourse with gaols is still more limited, and better under control. Still, so much must take place with the outer world for the sake of subsistence, that the disease occasionally eludes the most careful measures that can be employed. The guards must be changed and food supplied, and fresh prisoners be admitted. At first it was proposed to detain all fresh prisoners for some days in tents or in detached buildings outside the gaol walls, but this could not be carried out. Fresh prisoners were therefore kept in a separate ward, and all developed cases were removed to a special cholera hospital. The practical result of the measures I have mentioned is pretty clearly shown in the accompanying tables of all the deaths from cholera, in the hospitals, of the European troops and native prisoners in the Bengal Presidency since 1853 up to 1872. In the first decade the admissions among the European troops were at the rate of 24·05, and the deaths 13·62 per mille, and in the last only 8·30 admissions and 5·52 deaths per mille. Amongst the native prisoners it was respectively 27·49 admissions and 12 deaths per mille, and 15·28 admissions and 6·42 deaths per mille. The mortality is diminished nearly one-half. The quarantine regulations came in force at this date, and the coincidence is remarkable. The second table shows the relative mortality from cholera in the different districts since 1867 (when the returns of the civil population were first instituted), as well as the exemption of the gaols when the disease raged in the districts. The ratio of the gaols exempted was nearly 70 per cent. The facts displayed in these tables are of the highest value. The inferences I have drawn from them may be questioned, but until more satisfactory explanations are given they may be received. 2. The restriction of the dissemination of the disease was carried out by the isolation of the infected individual and by the disinfection of the clothes and articles soiled by him, and by the removal of all unsanitary defects and impurities that are know to promote the dissemination of all contagious diseases. The isolation of the sick in separate buildings or tents was generally employed; but sometimes they were treated in separate wards in the hospitals. The affected were never treated in the general wards. Special servants were entertained as "shampooers," to rub and tend the sick; but the hospital attendants were not restricted or treated as dangerous. The sanitary arrangements were considered of vital importance, especially in guarding against crowding and impure air and water. The soiled clothes and bedding were generally burnt, and the greatest care was taken to prevent the dissemination of the disease through the evacuations. Disinfectants were frequently placed in the vessels used to receive the discharges, and the locality was freely treated with disinfectants. The utmost diligence was employed to prevent the water supply being vitiated. Previous to 1862 the mortality in forty-one stations, on a strength of 54,823, was 3730, or 68·03 per 1000. In 1867 the mortality in ten of the most affected stations, on a strength of 10,895, was 397, or 36·11 per 1000. In 1872, in five of the stations which suffered most severely, on a strength of 5586 the mortality was 345, or 61·74 per 1000. This clearly shows that in some places where sanitary regulations are in force the mortality from cholera may still be very great. The third sub-division of the subject—viz., Removal—has been extensively carried out in India in military cantonments and civil gaols with most decided advantage. The object was to vacate the infected locality, which is often very limited in extent, in most cases being confined to the buildings occupied, or to the stations supplied with drinking-water from canals. Removal to vacant buildings, or to tents on the parade-ground, is often sufficient, but in this case there is danger from the men revisiting the infected buildings. The greatest care has to be taken to remove from the recently occupied ground, should fresh cases occur, and to avoid ground recently occupied by cholera camps. In civil life, the removal of the sick or suspected to isolated localities or lazarettoes is much more easily managed than general removal from a locality, though in India I have received reports of the inhabitants deserting their villages and living in the jungle until the disease disappeared. But in general this total removal is only practicable from barracks, gaols, and asylums. Those who are able to depart from an infected town or city might do so with advantage to themselves and diminish the crowding. As to the dangers of disseminating the disease over the country, that cannot be entirely avoided, but it would be moderated if none suffering from symptoms of the disease were allowed to leave. In concluding my remarks, I would recapitulate that I have shown great diminution in the mortality from cholera in India during a series of years, and I have mentioned a variety of measures that have been introduced during that period for the purpose of diminishing that mortality, and I have given my opinion of the influence of each of these measures on the result. I am not aware of anything else likely to influence the result except an advance in our knowledge of the medical treatment of the disease. In my opinion this has been very considerable, more especially in our knowledge of the earlier symptoms, enabling treatment to be employed while the body remains amenable to the ordinary action of remedies; but I do not advance this in evidence, because, in looking at these valuable statistical returns, I see that the ratio of deaths to attacks is not less than formerly.

Mr. J. Netten Radcliffe remarked that it was to the legislative enactments relating to restrictive quarantine that the discussion was more especially to be directed.

A letter was read from Dr. Harry Leach, Medical Officer to the Port of London, which said: It is most important that the practical bearings of quarantine, as far as they relate to cholera and its importation by the shipping, should be fully discussed. As far as regards our own port of London—the largest, most scattered, and, as I take it, most unmanageable in the kingdom,—I do not think that the system, as carried on by the officers of the Customs (which system Mr. Radcliffe can explain to you) at all meets the difficulties of the case, or affords any security against the importation of disease. Two glaring instances of false declarations made (perhaps unwittingly) by masters of ships to Customs officers have been

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discovered by us during the past four months, one involving a case of erysipelas among a party of some 200 German emigrants, in which the reply "All well on board" was returned, and the other the possession of certain effects of seamen who had died of cholera during the homeward passage, when the reply "No deaths during the voyage" was returned. In fact, the sanitary state of the ship and her crew and passengers can only be properly ascertained by going on board, examining the official log-book, and all the living freight. The log-book gives the "roll" of the crew, and any deaths that may have occurred during the voyage. If a muster is called, and men are found wanting, any officer well acquainted with a ship's geography can find out the whereabouts of a sick man in less than five minutes, and, indeed, the entire business might be completed in less than fifteen minutes. As the best substitute for quarantine, I am about to submit to the Port Sanitary Committee in my annual report the following recommendations in connexion with a possible outbreak of cholera during the ensuing summer:—1. To obtain, by assistance from the Government departments, and by all other means, a full and correct list of ports infected with, or suspected of, cholera. 2. To issue an order, or cause it to be issued, that all vessels arriving from such ports shall hoist a yellow flag when off the Nore. 3. That, with the assistance of the Customs, and in accordance with Article 7 of the "Order in Council" bearing date July 17 last, all such shall be examined in the manner that I have roughly indicated above by this Port Sanitary Authority. 4. That, in addition, all vessels arriving from such ports shall, while in the port of London, be visited *daily* by a sanitary inspector. 5. That all emigrant ships arriving from such ports shall be systematically and carefully inspected every twelve hours as long as the vessel remains in the Thames.

The PRESIDENT said, with reference to the fourth proposition, that, after studying the history of the epidemic of Guadaloupe in 1865-66, as detailed by Drs. Cuzent and Pellarin, both of whom were present, and had coincided in the views adopted at the outbreak of the epidemic—"that the disease was an endemic malarial fever, and non-infectious,"—of whom the former had written in support of that view, while the latter had receded from it, and had maintained that the disease was, from the first, pure Asiatic cholera. Before judging on these authorities, it was necessary to remember that, in the outbreaks of cholera, municipal interests are too frequently allowed to bias the official opinion of the nature of the disease. Thus, he had known several instances where the initiative cases of an epidemic of cholera had been announced by any name but the true one; and in none more strongly than at Malta in 1850, where the disease was officially pronounced to be "gastro-enteritis," and viewed as such until about eighty victims had fallen. In this way incalculable evil had arisen in allowing the valuable time to be lost in which safety might be secured by destroying the first units of disease, out of which epidemics of it are evolved. Amongst our French brethren that error was almost a principle of action in their distant possessions. With them it has been everywhere—from Algeria to Cochin China, Bourbon, and Guadaloupe—based on an erroneous theory that Asiatic cholera and the worst form of the malarial type of fevers, to which they have given the name of "*fièvre pernicieuse algide*," are closely allied in causation and in course, so that by them the treatment of diagnosed "Asiatic cholera" by large doses of quinine has been employed and found useless. On this occasion in Guadaloupe this view of the initiative cases had led to deplorable results in the neglect of every preventive measure, so that the disease was allowed to extend to all the dependencies of Guadaloupe, and to become a terrible epidemic of six months' duration there; whereas other French islands—Martinique and Saint Martin's,—which exacted at once a quarantine of fourteen days from all arrivals from Guadaloupe, were untouched. The English island Dominica, lying between Guadaloupe and Martinique, while exacting a similar quarantine from coasters, was exposed to imminent danger by refugees from Marie Galanté, one of the islets of Guadaloupe, landing unnoticed from an open boat. Being kept within a rigid *cordon sanitaire*, two out of the five refugees died, but the inhabitants of Dominica remained unscathed. These he believed to be undeniable facts; and he regarded this instance of Guadaloupe as a crucial one, proving, among insular localities, the capability of cholera exclusion by a quarantine of fourteen days, and the certainty of its introduction from island to island where intercourse was unrestricted. His inquiry into the origin of this epidemic, which was so very remarkable, as occurring in the Antilles four months later than in Egypt, had convinced him that there was no ground to believe in its spontaneous origin in Guadaloupe, although it broke out at Pointe à Pitre, on the low-lying calcareous island, Grande Terre, which abounds in the very worst sanitary conditions of a tropical climate, where cases of *fièvre pernicieuse algide* are seen every autumn. It is admitted on all hands that there were two arrivals from France immediately preceding the outbreak on October 22. The first of these was *La Virginie*, on October 9. She was five weeks from Marseilles, cholera prevailing there at the date of her departure; but during her voyage she appeared to have had no sickness on board her, and, receiving immediate pratique, she began to discharge the cargo from her pent-up holds. Within three days of her arrival, a woman named Pauline died in the hospital after a few hours' illness, styled "pernicious fever," according to the colonial acceptation of that term, the correctness of which in its application to that case may be open to doubt from what occurred subsequently. On October 20, eleven days later than the arrival of the *Virginie* from Marseilles, another vessel (*La Sainte Marie*) arrived from Bordeaux, which she had left on September 14. Two days after her departure one of her crew was taken ill, and he died on the twenty-second day of illness, when his bedding was *thrown overboard for safety*. His disease was recorded by the visiting officer as "not of suspicious character," and another man was reported by him as suffering from "*intermittent fever with gastralgia and diarrhœa*." The question arises, Was not this a case of choleraic diarrhœa, with stages of depression of vital power allied to collapse? However that may be, pratique was given, and by that act those consenting to it would be compromised so soon as the subsequent disease could be assigned to it. She was thrown open to visits from the shore, and a vigorous young man—an acrobat—visited her twice, and after that he performed on shore; but the same night (October 22) he was attacked, and died next morning in the marshy suburbs of Pointe à Pitre, and deaths soon followed amongst those who had attended on him in his illness, or dwelt in the locality. He brought from the ship a parcel of soiled clothing, which he delivered to a washerwoman, who, after washing the same, fell ill on the 25th, and died in twelve hours. Other women employed with her became ill and died. The first cases fell in the suburbs, but some of the women returned to their homes in the town, where they became ill and died, and then the disease extended in the town. On October 29, the Board of Health of Pointe à Pitre, of which M. Cuzent was a member, pronounced the prevailing disease to be "algide fever." During this time there was free intercourse with Basse Terre, the chief town of the principal island of the Guadaloupe group, but no case had occurred there. On November 2 the Board of Health, of which M. Pellarin was a member, sat and endorsed the previous report from Pointe à Pitre, that the disease was "*une fièvre pernicieuse algide choleriforme*," although not one of that Board had visited it. On November 7, M. Pellarin visited a vessel from Pointe à Pitre, and pronounced a case he saw there to be one of Asiatic cholera. The passengers from Pointe à Pitre had already landed. On November 11 it showed itself among the women washing at a mountain stream near the town of Basse Terre, and on the 15th it was epidemic in the town itself, and it quickly extended to all the small islands of the group, lasting six months, and carrying off about a tenth of the inhabitants. After such a patent series of events, some still affirmed it was only "*fièvre algide*," while others, admitting it to be Asiatic cholera, assigned to it a local origin in the habitat of that fever; but he (the President) thought there can now be no doubt of its true nature, and believed that the causes of the disease had been imported from France in the *La Sainte Marie*, and imparted on board her to the person of Charles Tudor, the acrobat, who was the first victim in Guadaloupe, as contended by M. Pellarin. It appeared to him that the chance of destroying the infection by dealing with the first units of disease had been sacrificed to mistaken theories concerning its nature. He is of opinion that in insular positions quarantines of observation upon infected localities, with quarantines (of a still unfixed duration) for infected ships, are necessary precautions. In having recourse to such measures, it is well to consider as many instances as can be obtained from the history of infected ships, of which he had not met with a single instance not coming from an infected country, as exemplified in the last-mentioned cases. As a contribution to the subject of the period of incubation and of duration of cholera in ships

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offered the following instances which occurred in 1850:—In that summer there was an epidemic of cholera in the Mediterranean fleet, and H.M.S. *Queen*, to which he belonged, lost fifty men in three distinct outbursts, each of which commenced in, or on leaving, Malta harbour. On that occasion Malta was infected badly after Tunis and Algeria; and although those "foci" lay so near to Malta, yet the sanitary authorities could not see in the first cases anything beyond *gastro-enteritis*, as in Guadaloupe they have since seen nothing but *fièvre algide*. In May, 1850, the fleet arrived in health from the Piræus, and at the beginning of June diarrhœa prevailed, increasing in force and frequency as the month advanced. The first case of collapse occurred in the *Queen* on June 27. The fleet proceeded to sea on July 3, and the disease ceased in collapsed type on the tenth day from departure, July 15. On August 14 she re-entered the harbour, and remained till the 16th. Diarrhœa recommenced, and cases of fatal collapse appeared on the 19th and 21st, occupying five days from departure. She visited the port again from September 4 to September 8, four days in harbour, and while being towed out of it a case of collapse occurred, and a severe epidemic followed, lasting ten days, as in the first outbreak in July. We may call these recrudescences if we please, but on each time the ship revisited the infected harbour the collapse type of cholera was relighted; and the men employed in boats suffered in greater proportion than those whose duties kept them in the ship. The inferences were, that on one occasion a stay of four days, and on another of five days, in harbour, sufficed for the development of an outburst of collapse-cholera, and that in three instances, after leaving port with the disease on board, the collapse type had ceased on or before the tenth day of departure. H.M.S. *Bellerophon* afforded another instance. She entered Malta harbour on September 9, and sailed on September 12, after three days and a half there. A severe epidemic commenced in her in harbour and ceased also on the tenth day at sea. He considered that the surest means of deciding on the periods of incubation and extinction of cholera, as a guide to rules for intercourse by ships, would be drawn from many similar instances being amassed together. In conclusion, after close study of the matter, he had found no record of any outbreak of cholera on board any ship that had not recently been on a coast where the disease existed; and, as to islands, he considered the entire weight of positive evidence to lie on the side of their having received infection from without. Therefore, believing that cholera has been frequently excluded from islands by quarantine, and as often introduced through its non-observance, he regarded it as a truly preventive measure; but, recognising the impracticability of exacting it under many circumstances, he would insist on the most strict isolation of all the first cases or units of disease, whether introduced from without or originating from relationship to introduced cases, or persons or goods imported from infected countries.

MEDICAL NEWS.

APOTHECARIES' HALL.—The following gentlemen passed their examination in the Science and Practice of Medicine, and received Certificates to practise, on Thursday, March 26:—

Bookey, Thomas Leeson, Whitchurch, Salop.
Coffin, Richard James Maitland, Malta.
Hogg, James, Dronefield, Sheffield.
Hogg, Tom Bellshaw, Leeds.
Thomson, Samuel John, St. Mary's Hospital.
Wilding, Leonard James, Worcester.

The following gentlemen also on the same day passed their primary professional examination:—

Barnes, Edwin, St. Bartholomew's Hospital.
Pearce, Arthur, St. Bartholomew's Hospital.
Budduck, John Burton, London Hospital.

APPOINTMENTS.

*** The Editor will thank gentlemen to forward to the Publishing-office, as early as possible, information as to any new Appointments that take place.

FARR, SEPTIMUS BRIGGS, L.R.C.P. Edin., M.R.C.S. Eng., L.S.A.—Medical Officer of Health for Andover.

HUTCHINGS, HENRY EBENEZER, M.R.C.S. Eng., L.S.A.—Medical Officer of Health for the City of Canterbury Urban Sanitary Authority.

LAWRENCE, EDGAR, L.R.C.P. Lond., L.R.C.S.—One of the Honorary Medical Officers to the Eastern Dispensary, Bath.

LOUGHNAN, MICHAEL, L.R.C.S.I.—Medical Officer for the Falcaragh (Cross Roads) Dispensary District, co. Donegal.

WILSON, WILLIAM S., L.R.C.P., M.R.C.S., L.S.A.—Resident Medical Officer at the Bloomsbury Dispensary, Great Russell-street, *vice* Dr. Humphreys, resigned.

NAVAL AND MILITARY APPOINTMENTS.

ADMIRALTY.—In accordance with the provisions of her Majesty's Order in Council of February 22, 1870, the undermentioned officers have been placed on the retired list of their rank:—Surgeon Edward W. Leet, from the 20th inst. Staff-Surgeon William M'Kenzie Saunders, M.D. The latter has also been authorised to assume the rank of Retired Deputy Inspector-General of Hospitals and Fleets from the date of his retirement.

WAR OFFICE.—MEDICAL DEPARTMENT.—Surgeon-General Sir William Mure Muir, K.C.B., M.D., Honorary Physician to her Majesty, to be Director-General of the Army Medical Department, *vice* Sir Thomas Galbraith Logan, K.C.B., M.D., whose period of service has expired. Surgeon Robert Lindsay, M.B., retires upon temporary half-pay.

BREVET.—Apothecary Daniel Wedgeberry, retired Bengal Medical Service, to have the honorary and local rank of Surgeon. Apothecary Gasper De Rozario, Bombay Medical Service, to have the honorary and local rank of Surgeon.

BIRTHS.

JAMESON.—On March 28, at 11, West Cromwell-road, Kensington, the wife of T. Jameson, M.D., L.R.C.S., R.N., of a son.

MILLER.—On March 26, at Edith-grove, Fulham-road, the wife of Surgeon-Major C. M. M. Miller, M.D., of a son.

STAINES.—On March 26, at 37, Southampton-row, W.C., the wife of John Francis Staines, L.R.C.P. Edin., L.F.P.S. Glasg., L.S.A., of a son.

MARRIAGES.

HAYMAN—KENNARD.—On March 25, at St. Mary Abbotts, South Kensington, Philip Charles Hayman, M.D., M.R.C.S., L.S.A., of Blenheim House, Sandown, Isle of Wight, to Alice Irvina, eldest daughter of T. W. Kennard, Esq., of Cromwell-road, South Kensington, London.

HEATH—COOKE.—On March 28, at St. Mark's, Hamilton-terrace, Arthur H. Heath, son of Captain E. Heath, of Bedford, to Alice R. Cooke, daughter of the late J. C. Cooke, M.D.

STEWART—CONNERY.—On March 24, at Christ Church, Belfast, James Stewart, B.A., L.R.C.P. Edin., Assistant Medical Officer, Kent County Asylum, Maidstone, formerly of H.M.S. *Constance*, to Maud, daughter of the late Richard Connery, Esq., Belfast.

DEATHS.

ANDREWS.—On March 28, at Brabourne, near Ashford, Kent, Onslow Andrews, Esq. (father of Onslow Andrews, M.D., Alfred B. Andrews, M.R.C.S., and Henry Charles Andrews, M.D.), in his 83rd year.

BAINBRIDGE, ANNIE, wife of Major F. T. Bainbridge, Commandant 4th Punjaub N.I., and daughter of J. C. Collins, M.D., of Westall House, Cheltenham, at Abbottabad, Punjaub, India.

BLENNERHASSETT, EDWARD, M.D., late of Bayswater, youngest son of the late Henry Blennerhassett, M.D., of Tralee, co. Kerry, at Knight's Town, Valencia, co. Kerry, on March 24.

BOWIE, ANNA, widow of William Bowie, M.D., at Bath, on March 28.

CROSSWELL, MARION, wife of Richard Crosswell, M.R.C.S., late of Southgate, at 14, Bedford-place, Russell-square, on March 28.

CROWTHER, WILLIAM, M.R.C.S., L.S.A., third son of the Hon. W. L. Crowther, Hobart Town, Tasmania, of Hanby Hall, Alford, Lincolnshire, at the residence of his brother, E. L. Crowther, M.D., on March 26, aged 24.

DANIELL, CYRUS OCTAVIUS, M.D., Surgeon-Major Bengal Army, youngest son of the late Alfred Daniell, Esq., of Harewood-square, N.W., in Park-street, Grosvenor-square, on March 28.

RAYNER, EDWARD, M.D., at his residence, 11, Rue Traktir, Paris, on March 24, aged 60.

RENDLE, the Rev. HARRY R., M.A., youngest surviving son of Edmund Rendle, M.D., at 6, Buckland-terrace, Plymouth, on March 30, aged 25.

TORRANCE, D., M.R.C.S. Eng., at Rugby, on March 26, aged 76.

VACANCIES.

In the following list the nature of the office vacant, the qualifications required in the Candidate, the person to whom application should be made, and the day of election (as far as known) are stated in succession.

BERKS COUNTY ASYLUM, MOULSFORD, WALLINGFORD.—Assistant Medical Officer. Candidates must be duly qualified. Applications, with testimonials, to Dr. R. B. Gilland, Medical Superintendent.

BOOTLE BOROUGH HOSPITAL.—House-Surgeon. Candidates must possess both a medical and surgical qualification. Applications, with testimonials, to T. P. Dawson, Honorary Secretary, on or before April 20.

BRISTOL GENERAL HOSPITAL.—Physician. Candidates must be duly qualified. Applications, with testimonials, to the Secretary, Henry Fox, Esq., R.N.

BURY DISPENSARY.—House-Surgeon. Candidates must be duly qualified. Applications, with testimonials, to the Secretary, on or before April 16.

CENTRAL LONDON OPHTHALMIC HOSPITAL, GRAY'S INN-ROAD, W.C.—Assistant-Surgeon. Candidates must be duly qualified. Applications, with testimonials, to the Secretary, on or before April 8.

CUMBERLAND INFIRMARY.—House-Surgeon. Applications, with testimonials, to Mr. John Laver, Secretary, on or before April 22.

GUILDFORD UNION.—Medical Officer for the Albury District. Candidates must be duly qualified. Applications, with testimonials, to Mr. Mark Smallpiece, Clerk to the Guardians, Guildford, on or before April 9.

HOSPITAL FOR SICK CHILDREN, 49, GREAT ORMOND-STREET.—Medical Registrar. Candidates must possess legal qualifications. Applications, with testimonials, to the Secretary, on or before April 15.

HULL GENERAL INFIRMARY.—Honorary Physician. Applications, with testimonials, to the Chairman, at the Infirmary.

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KILBURN DISPENSARY.—Senior Resident Medical Officer; also Assistant Resident Medical Officer. Candidates must be duly qualified. Applications, with testimonials, to the Honorary Secretary, 30, Boundary-road, Finchley-road, N., on or before April 6.

KING'S COLLEGE HOSPITAL.—Assistant-Physician, Pathological Registrar, and Curator of the Anatomical Museum. For particulars apply to J. W. Cunningham, Esq., King's College, Strand.

KING'S COLLEGE HOSPITAL.—Assistant Dental Surgeon. For particulars apply to J. W. Cunningham, Esq., Secretary, King's College, Strand.

LANCASTER COUNTY ASYLUM.—Assistant Medical Officer. Applications, with testimonials, to the Superintendent.

LINCOLN COUNTY HOSPITAL.—House-Surgeon and Apothecary. Candidates must be M.R.C.S. Eng. and L.S.A., or L.R.C.P. Lond. Applications, with testimonials, to the Secretary, on or before May 4.

LUNESDALE UNION.—Medical Officer. Applications, with testimonials, to Mr. R. Stephenson, Hornby, near Lancaster, on or before April 21.

NORTH LONDON CONSUMPTION HOSPITAL, HAMPSTEAD.—Candidates must be F. or M.R.C.P. and graduates of a university (or qualify within twelve months). Applications, with testimonials, to the Secretary, Mr. W. Hornibrook, at the offices, 216, Tottenham Court-road, W., on or before April 15.

ROYAL SOUTH LONDON DISPENSARY, ST. GEORGE'S-CROSS, LAMBETH-ROAD, S.E.—Honorary District Surgeon. Applications to Mr. Hentsch, at the Dispensary.

DR. BIANCHI, Analyst of St. Saviour's, Southwark, has resigned in consequence of the heavy duties connected with the office.

DURING the past year University College Hospital has afforded relief to 1832 in-patients, 5062 out-patients, 4936 casualties, 1230 ophthalmic cases, 1257 diseases of the skin; and 1100 women had been attended in childbirth at their own homes.

THE Edmonton Local Board of Health has been convicted of fouling the tributaries of the river Lea, and ordered to pay £20 a day so long as the offence complained of exists.

IT is reported from Munich that the cholera is permanent in that city. Last week there were every day from three to five cases of the malady.

THE Third Congress of German Surgeons will be held in Berlin from April 8 to 11. Among the prominent subjects for discussion are announced "Lister's Method of Treating Wounds" and "Relapse after Operation for Cancer."

MEDICAL STUDENTS' ATHLETIC CLUB.—At the general meeting of the members of the United Hospitals Athletic Club on the 23rd ult., it was arranged that the annual sports should take place at Lillie-bridge grounds on June 27. Mr. H. H. Masters (St. Bartholomew's) was elected hon. secretary, and Mr. G. E. Moore (King's) hon. treasurer, for the ensuing year.

EDINBURGH UNIVERSITY MUSICAL SOCIETY.—The members of the Edinburgh University Musical Society gave their seventh annual concert in the George-street Music-hall on the 18th ult. The orchestra was composed of a band of fifty professionals and amateur performers, and the chorus included over 200 students. The concert was a great success, the hall being crowded and every piece well received; some of them were encored. Professor Balfour kindly lent several elegant tropical plants for the purpose of decorating the platform.

NOTES, QUERIES, AND REPLIES.

He that questioneth much shall learn much.—*Bacon.*

Justitia.—Dr. Wybrants is the Coroner for Mid-Somerset.

T. A. E.—The Royal Society's *conversazione* is fixed for Wednesday, April 22.

Nemo.—Next week.

Falconer, jun., is thanked.

A Country Subscriber.—Irish *Transactions*, vol. v., p. 326.

Spero.—Marcello Malpighi, a distinguished anatomist and physiologist, was born in 1628 at Crevalcuore, near Bologna. He studied anatomy and physic at Bologna under Massari and Mariano, and took there his Doctor's degree in 1653.

Resemblance.—Yes; in countenance and figure Dr. Maxwell Garthshore closely resembled the great Earl of Chatham. "This likeness," observes a writer in the *Gentleman's Magazine*, "once produced considerable sensation in the House of Commons. Lord Chatham was pointed to in the gallery: all believed him to be there. The person really present was Dr. Garthshore."

St. Stephen's.—Yes; Mr. J. H. Puleston, M.P. for Plymouth, is a member of our profession, and received his medical education at Charing-cross Hospital. Dr. Livingstone and Professors Huxley and Parker are claimed as pupils of the same school.

Dr. Noel, Tooting.—If a short account of the transactions be sent to us, it shall receive our best attention. It is impossible to suppose that such an act of apparent injustice can be perpetrated with impunity.

Ignatius.—Dr. John Radcliffe died at his house at Carshalton on November 1, 1714, and was buried with great honours at Oxford on the 4th of the following month.

"HOW SHALL YOUNG LADIES BE FLOGGED?"

TO THE EDITOR OF THE MEDICAL TIMES AND GAZETTE.

SIR,—I sincerely hope chastisement on the shoulders has no such serious consequences as "Flagellant" asserts, or else "A Lady Principal," who writes from Kensington in the last number (October 27, 1873) of the *Scholastic Register*, may do a good deal of mischief. She says she gave "Miss P.," one of her pupils, "a sound caning until I made my arms ache," adding that on another occasion she "used the riding-whip on the bare shoulders and arms." The correspondence in this journal to which I refer your readers proves that the birch is not quite extinct in ladies' schools. I am, &c.,

Trinity College, Dublin, March 29. A MEDICAL STUDENT.

TO THE EDITOR OF THE MEDICAL TIMES AND GAZETTE.

SIR,—I was somewhat surprised to see the tone in which your correspondents last week replied to the query of "A Country Physician." Had you not admitted ladies to your columns I would not write, but finding others have done so, I venture to follow the example. Whether a school can be successfully managed without corporal punishment is a point on which I decline to give an opinion. It is certain that a large number of schoolmistresses believe that it *cannot;* and as these ladies *will* employ corporal correction, whatever your correspondents may say, I think it really important that they should adopt the best kind. That girls are punished with these instruments is perfectly certain, and I believe they suffer quite as often and as severely as boys; and those who doubt I beg leave to refer to the "Supplemental Conversazione" of the *Englishwoman's Domestic Magazine*, separately published by Messrs. Ward, Lock, and Tyler, and copies of which can, I have no doubt, be still procured. I venture to condemn the cane, which I have known to leave a permanent callous enlargement of the hands, and I don't think the "Country Physician" could do better than try an instrument known as the "tawse," which has long been extensively used both on boys and girls in my native country—Scotland. I am, &c., MARGARET MCGREGOR.

TO THE EDITOR OF THE MEDICAL TIMES AND GAZETTE.

SIR,—Let me entreat your correspondents not to jest upon the "Country Physician's" letter, but to say something against what one of them calls a lower discipline for young ladies. I have had it twice during the last year at school, and I think it is most horrid, and it hurts us dreadfully, and I am sure we would be just as good without it. Do please say something against it. I am, &c., A PHYSICIAN'S DAUGHTER.

P.S.—I saw it here when I came home for the Easter holidays.

Kensington, Tuesday.

THE "YOUNG" FAMILY.

TO THE EDITOR OF THE MEDICAL TIMES AND GAZETTE.

SIR,—In answer to an inquiry in your last number, three different families of "Young" have been rolled into one. Will you allow me to unroll them? "George Young, the well-known surgeon," was the son of a surgeon who practised in the City. He had two brothers—one the celebrated actor Charles Young, who was the father of Charles Mayne Young; and another a merchant. "Sir Charles George Young, Garter King-at-Arms" (twenty years the surgeon's junior), was the son of a medical practitioner living in the neighbourhood of London. He married the widow of Mr. Frederick Tyrrell, the sister of Mr. Bransby Cooper. "Surgeon Young, of Sackville-street," was again of another family. He was nephew of the very celebrated Dr. Thomas Young, distinguished no less as a physician than as a scholar and man of general science, who came of a Quaker family, was the nephew of Dr. Brocklesby, and a connexion of the Gurney family. I am, Sir, yours not any longer YOUNG.

POOR-LAW MEDICAL SERVICE.

TO THE EDITOR OF THE MEDICAL TIMES AND GAZETTE.

SIR,—It may concern the medical profession generally, as well as those members of the profession who hold appointments in the Poor-law Medical Service, to learn that from the last returns it appears that for some years past less and less has been paid every year to the medical officers for salaries and extra services, *etc.* I am, &c. A SURGEON.

ARSENIC IN BOILS.

TO THE EDITOR OF THE MEDICAL TIMES AND GAZETTE.

SIR,—I am not aware whether arsenic in any shape has ever been given for the cure of "recurrent" boils and carbuncles, although it is well known to succeed in subduing some other forms of skin disease. I had, not long since, a gentleman of middle age, tormented with a large and very painful boil in the left axilla, immediately followed by smaller ones recurring at the inside of the upper arm. As soon as one began to heal, another of these painful pustules appeared; and after employing the usual modes of treatment, constitutional and local, sedative applications, etc., without arresting them, it occurred to me to try the liq. arsenicalis in rapidly increased doses, which was followed by singular success—the two last-formed boils having quickly "aborted," and no other pustules having appeared after persevering in the remedy for a week, and this without any ill effects arising from its use. This gentleman had never suffered from boils before, and, as he usually enjoyed very good health, no cause for them could be discovered. I am, &c.,

March 28. F. PEPPERCORNE, L.R.C.P., M.R.C.S.

Cures of Leprosy.—Beauperthuy's consists, it is said, in the administration of small doses of corrosive sublimate, and the application to the diseased patches of the oil of cashew-nut—an acrid oleo-resinous liquid extracted from these nuts by heat. Dr. Bhan Dajie's cure is believed to consist in the internal and external use of the oleo-resin of the Chaulmogra (*Gynocardia odorata, Chaulmoogra odorata*, or Lucruban seeds). In China it is said that the Neeradeemootoo oil (*Hydnocarpus inebrians*) has similar effects. The Gurjun oil (*Dipterocarpus lævis*) has been reported on by Surgeon-Major Dougall, M.D., Principal Medical Officer at the Andamans, very favourably. Dr. Martin, of the India Medical Department, Bombay, has reported on the effects of various cures tried in the Jamsetjee Jejeebhoy Hospital. Carbolic acid is condemned as injurious. It appears

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that the sum of all to be said is, that with good food, perfect cleanliness, and some occupation, the lepers in an early stage are capable of improvement; and that the external use of the cashew-nut oil, the Chaulmogra oil, and the Gurjun oil produces first a good deal of local excitation, then a diminution of the anæsthesia, and a shrinking of the tubercles; temporary alleviation—most valuable, without doubt,—but not permanent arrest of the disease. The hygienic treatment alone seems nearly as efficacious. This seems the sum of Dr. Van Someren's experience.

BOOKS RECEIVED—

Kidd on the Conjoint Examination and Uniform Standard of Education—Ransome on the Constrictor Action of the Intercostal Muscles—Hamilton on the After-Treatment of Large Amputations—A Plea for Liberty of Medical Teaching, by J. T. Arlidge, M.D., B.A.—Physiology for Practical Use, by various writers, edited by James Hinton—Pavy on Food and Dietetics—On Some Cases of Contracted Burn-Cicatrix treated by the Tagliacotian Operation, by James Hardie, M.D.—Needham on Insanity in relation to Society—Thompson on Cremation.

PERIODICALS AND NEWSPAPERS RECEIVED—

Lancet—British Medical Journal—Medical Press and Circular—Nature—Pharmaceutical Journal—Students' Journal and Hospital Gazette—Le Progrès Médical—La France Médicale—La Tribune Médicale—Gazette Médicale—Gazette Hebdomadaire—Gazette des Hôpitaux—Canada Lancet—Bulletin de l'Académie de Médecine—Allgemeine Wiener Medizinische Zeitung—Transactions of the Odontological Society, vol. vi., part 5—Berliner Klinische Wochenschrift—The Obstetrical Journal of Great Britain and Ireland, No. 13—Western Daily Mercury—Bulletin Général de Thérapeutique—British and Foreign Medico-Chirurgical Review—Edinburgh Medical Journal—Irish Hospital Gazette.

COMMUNICATIONS have been received from—

Dr. J. W. Ogle, London; Dr. J. Russell, Birmingham; Mr. Charles Higgens, London; Mr. J. Chatto, London; Dr. J. Althaus, London; Mr. H. K. Hitchcock, Lewisham; Messrs. J. B. Lippincott and Co., Philadelphia; Mr. T. E. Amyot, Diss; Mr. John Quinton, Norwich; Dr. William Squire, London; Mr. T. P. Pick, London; Mr. Richard Davy, London; Dr. Needham, York; Dr. J. Hardie, Manchester; Mr. Alexander Duncan, Glasgow; Dr. Druitt, Madras; Mr. S. H. Horley, Southampton; The Registrar of the Royal College of Physicians of London; Al Cho (a Christian Burmese); Mr. G. Brown, London; Mr. G. Gaskoin, London; Mr. B. Vincent, London; Dr. A. Cameron, Bath; Mr. L. H. Fawcett, Tiverton; Dr. Pavy, London; Mr. Latreille, London; Mr. V. P. Griffith, Falcaragh; Mr. W. Flint, Canterbury; Mr. Braddon, Upton-on-Severn; Mr. T. Davies, Chester; Mr. D. Hartley, Cheltenham; Mr. T. Lamb, Andover; Dr. F. J. Brown, Rochester; Dr. C. Bell Taylor, Nottingham; Young; Dr. F. Peppercorne, London; Mr. Holloway, Peckham; A Medical Student; Mr. F. Gordon Brown, London; Dr. Staples, Dinapore; Mr. Christopher Heath, London; A Surgeon; Mrs. McGregor, London.

APPOINTMENTS FOR THE WEEK.

April 4. Saturday (this day).

Operations at St. Bartholomew's, 1½ p.m.; King's College, 2 p.m.; Charing-cross, 2 p.m.; Royal Free, 9 a.m. and 2 p.m.; Hospital for Women, 9½ a.m.; Royal London Ophthalmic, 11 a.m.; Royal Westminster Ophthalmic, 1½ p.m.; St. Thomas's, 9½ a.m.

6. Monday.

Operations at the Metropolitan Free, 2 p.m.; St. Mark's Hospital for Diseases of the Rectum, 2 p.m.; St. Peter's Hospital for Stone, 3 p.m.; Royal London Ophthalmic, 11 a.m.; Royal Westminster Ophthalmic, 1½ p.m.

Royal Institution, 2 pm. General Monthly Meeting.

7. Tuesday.

Operations at Guy's, 1½ p.m.; Westminster, 2 p.m.; National Orthopædic, Great Portland-street, 2 p.m.; Royal London Ophthalmic, 11 a.m.; Royal Westminster Ophthalmic, 1½ p.m.; West London, 3 p.m.

London Anthropological Society, 8 p.m. Meeting.

Pathological Society, 8 p.m. Meeting.

8. Wednesday.

Operations at University College, 2 p.m.; St. Mary's, 1½ p.m.; Middlesex, 1 p.m.; London, 2 p.m.; St. Bartholomew's, 1½ p.m.; Great Northern, 2 p.m.; St. Thomas's, 1½ p.m.; Samaritan, 2½ p.m.; King's College (by Mr. Wood), 2 p.m.; Royal London Ophthalmic, 11 a.m.; Royal Westminster Ophthalmic, 1½ p.m.

Epidemiological Society, 8 p.m. Prof. Corfield, "On the Alleged Spontaneous Production of the Poison of Enteric Fever."

9. Thursday.

Operations at St. George's, 1 p.m.; Central London Ophthalmic, 1 p.m.; Royal Orthopædic, 2 p.m.; University College, 2 p.m.; Royal London Ophthalmic, 11 a.m.; Royal Westminster Ophthalmic, 1½ p.m.

Hunterian Society (London Institution), (Meeting of Council, 7½ p.m.), 8 p.m. Mr. Durham, "A Case of Pneumothorax resulting from Injury, Treated by Paracentesis and Aspiration." Mr. Rivington, "A Case of Intra-Orbitar Aneurism; and some other Cases of Injury to the Head."

10. Friday.

Operations at Central London Ophthalmic, 2 p.m.; Royal London Ophthalmic, 11 a.m.; South London Ophthalmic, 2 p.m.; Royal Westminster Ophthalmic, 1½ p.m.; St. George's (ophthalmic operations), 1½ p.m.

Clinical Society, 8½ p.m. Mr. Callender will read a "Case of Neuralgia in Stump treated by Nerve Stretching." (The patient will be exhibited.) Mr. Haward will read a "Case of Recurrent Sarcoma of Breast." Mr. Teevan will read notes of "Cases of Sterility after Lithotomy."

West Kent Medico-Chirurgical Society (Royal Kent Dispensary, Greenwich-road), 8 p.m. Mr. W. W. Wagstaffe, "On Intestinal Obstruction: Causes and Treatment."

VITAL STATISTICS OF LONDON.

Week ending Saturday, March 28.

BIRTHS.

Births of Boys, 1228; Girls, 1228; Total, 2454.
Average of 10 corresponding years 1864-73, 2202·4.

DEATHS.

	Males.	Females.	Total.
Deaths during the week	741	789	1530
Average of the ten years 1864-73	780·0	765·1	1545·1
Average corrected to increased population	...	...	1700
Deaths of people aged 80 and upwards	...	...	57

DEATHS IN SUB-DISTRICTS FROM EPIDEMICS.

	Population, 1871.	Small-pox.	Measles.	Scarlet Fever.	Diphtheria.	Whooping-cough.	Typhus.	Enteric (or Typhoid) Fever.	Simple continued Fever.	Diarrhœa.
West	561359	1	15	...	2	6	...	1	1	2
North	751729	...	14	1	...	12	1	...	...	2
Central ...	334369	...	6	2	...	6	...	1	...	...
East	639111	...	12	9	3	8	1	5	1	1
South	967692	...	11	6	1	22	3	9	2	3
Total	3254260	1	58	18	6	54	5	16	4	8

METEOROLOGY.

From Observations at the Greenwich Observatory.

Mean height of barometer	30·042 in.
Mean temperature	48·2°
Highest point of thermometer	65·4°
Lowest point of thermometer	31·3°
Mean dew-point temperature	42·2°
General direction of wind	W.S.W. & S.W.
Whole amount of rain in the week	0·00 in.

BIRTHS and DEATHS Registered and METEOROLOGY during the Week ending Saturday, March 28, 1874, in the following large Towns:—

Boroughs, etc. (Municipal boundaries for all except London.)	Estimated Population to middle of the year 1874.*	Persons to an Acre. (1874.)	Births Registered during the week ending Mar. 28.	Deaths Registered during the week ending Mar. 28.	Temperature of Air (Fahr.) Highest during the Week.	Lowest during the Week.	Weekly Mean of Mean Daily Values.	Temp. of Air (Cent.) Weekly Mean of Mean Daily Values.	Rain Fall. In Inches.	In Centimetres.
London	3400701	45·1	2454	1530	65·4	31·3	48·2	9·00	0·00	0·00
Portsmouth ...	120436	26·8	77	57	...	...	...	...	...	...
Norwich	82257	11·0	54	37	64·5	31·0	46·4	8·00	0·09	0·23
Bristol	192889	43·3	160	82	...	...	...	...	...	...
Wolverhampton ...	70896	20·9	53	32	68·0	33·1	46·6	8·11	0·07	0·18
Birmingham ...	360892	43·0	325	192	65·0	33·2	47·6	8·68	0·06	0·15
Leicester	106202	33·2	103	34	67·5	33·0	47·8	8·78	0·11	0·28
Nottingham ...	90894	45·5	75	43	67·7	33·9	47·4	8·55	0·06	0·15
Liverpool	510640	98·0	437	263	55·5	34·1	46·0	7·78	0·40	1·02
Manchester ...	355339	82·8	307	190	62·0	30·0	45·9	7·72	1·11	2·82
Salford	133068	25·7	122	68	60·7	28·7	45·6	7·55	1·07	2·72
Oldham	86281	18·5	69	49	53·0	...	...	...	1·26	3·20
Bradford	163056	22·6	114	89	57·4	34·2	45·9	7·72	0·06	0·15
Leeds	278798	12·9	302	156	59·0	34·0	46·7	8·16	0·11	0·28
Sheffield	261029	13·3	267	112	67·2	30·5	47·7	8·72	0·49	1·24
Hull	130996	36·0	130	50	61·0	30·0	45·7	7·61	0·09	0·23
Sunderland ...	104378	31·6	86	47	...	...	...	...	...	...
Newcastle-on-Tyne	135437	25·2	129	78	57·0	38·0	47·1	8·39	0·00	0·00
Edinburgh	211691	47·8	129	98	...	...	...	...	...	...
Glasgow	508109	100·4	382	290	57·8	36·4	46·8	8·22	0·54	1·37
Dublin	314666	31·3	195	167	61·9	38·6	50·1	10·06	0·46	1·17
Total of 21 Towns in United Kingdm	7618655	36·6	5970	3664	68·0	28·7	47·0	8·33	0·35	0·89

At the Royal Observatory, Greenwich, the mean reading of the barometer last week was 30·04 in. The highest was 30·28 in. on Wednesday morning, and the lowest 29·79 in. on Friday evening.

* The figures for the English and Scottish towns are the numbers enumerated in April, 1871, raised to the middle of 1874 by the addition of three years and a quarter's increase, calculated on the rate which prevailed between 1861 and 1871. The population of Dublin is taken as stationary at the number enumerated in April, 1871.

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ORIGINAL LECTURES.

CLINICAL LECTURES

DELIVERED IN UNIVERSITY COLLEGE HOSPITAL.

By CHRISTOPHER HEATH, F.R.C.S.,
Surgeon to the Hospital, and Teacher of Operative Surgery in University College.

ON CALCULUS IN THE FEMALE.

GENTLEMEN,—You have abundant opportunities of witnessing the treatment of vesical calculus in the male in this hospital, and especially in Sir Henry Thompson's wards, but as the cases of stone in the female are everywhere few and far between, I propose to direct your attention to-day to this subject, using as illustrations cases which have occurred under my care both here and elsewhere. Stone is not nearly so common in the female as in the male, the proportion between the two sexes being, according to Mr. Poland, one in the female to twenty or twenty-three in the male; and the same author remarks that "statistics respecting stone in the female, the operation and its consequences, and the mortality after operation, are incomplete and unsatisfactory." I am inclined to think, from what I have seen, that stone is more common in the female than is here stated, or than is generally supposed, because in all the five cases I have had under my care the disease had not been recognised until shortly before I saw them, although the symptoms had long been present, and had been for the most part referred to uterine disorders. Irritability of the bladder is so common an accompaniment of uterine disease that it is easy to understand how both patient and doctor may be deceived by the symptoms produced by stone; but I would warn you, in all cases of uterine complaint, not to be satisfied without making both a rectal and a vesical examination if the symptoms are at all obscure or do not yield readily to appropriate treatment. When a vaginal examination is being made, it is so easy to pass the finger into the rectum and to slip the uterine sound (if no more convenient instrument is at hand) into the bladder, that there really is little excuse for overlooking disorders of any of the pelvic viscera.

Calculus in the female may be of renal or vesical origin, or both, just as in the male; but there is the peculiarity about stone in the female that it may occasionally have for its nucleus some foreign body introduced by the patient herself. If the foreign body is small—such as a piece of cork,—and is completely enveloped by the calculous matter, it in no way complicates the treatment; but cases are not very uncommon in which a hairpin or some other implement has been introduced into the bladder, and, having escaped the patient's grasp, has been left there to form the nucleus of a concretion which is certain to form. In these cases the foreign body projects from the stone, and may not improbably have pierced the bladder, and given rise to serious complications, the treatment of which I shall refer to presently.

The symptoms of stone in the female closely resemble those in the male, except that, from the close propinquity of the bladder to the uterus, they may be, as I have said, referred to the latter organ. Frequent micturition, pain especially after emptying the bladder, with "bearing down," should direct attention to the bladder and the condition of urine, which last is probably thick, and may occasionally contain blood. The detection of a stone with the sound is comparatively easy, for the urethra is short, and there is no prostate behind which a small stone can lie hid, whilst the ease with which the fundus of the bladder can be simultaneously examined with the finger in the vagina makes the diagnosis simple enough. There is, moreover, another method of exploring the female bladder which I have found most useful in all forms of vesical disorder, and that is with the finger passed through the urethra. I have found by extended experience that it is possible to pass the forefinger into the urethra and bladder of a woman with very slight and unimportant laceration of the mucous membrane, and with no permanent incontinence. When the patient is put thoroughly under the influence of chloroform, and placed in the lithotomy position, I pass a director into the urethra, and, drawing this downwards with one hand, slip the oiled finger above it, and, with a little rotatory movement, pass on into the bladder without any great difficulty. In some cases I find it better to begin with the little finger, as being smaller; and in one or two cases of contracted urethra I have been obliged to begin the dilatation with a pair of dressing forceps run along the grooved director. In these latter cases the dilatation has been undertaken as a means of treatment, and with good success. In all cases I find that the mucous membrane is split beneath the pubes, and there is usually some degree of incontinence for twenty-four hours, but the patient then ordinarily recovers complete control over the bladder.

The advantage of being able to examine the interior of the bladder must be obvious, and was well illustrated by a case I saw a few days back in consultation. The patient had suffered from pain about the bladder and urethra, which had been referred to a vascular growth in the urethra, and this had been removed without benefit. A sound failed to detect anything in the bladder, though the patient always maintained that something "fell down" when the urine escaped; but upon passing the finger in I detected and removed with the scoop this minute calculus, weighing but a few grains, and not larger than a pea. The advantage of being able to gauge the exact size and shape of a calculus may often be advantageous; but when the concretion has formed upon such a foreign body as a hairpin—the sharp ends of which may possibly project—it is essential to know the direction it lies in, so as to avoid all danger in removing it. Complicated instruments have been devised for the extraction of these foreign bodies; but with the finger in the bladder I have found no difficulty in extracting them with a pair of simple polypus-forceps, using the finger to turn the intruder as might be necessary to grasp it in the right direction.

Calculi, considerably larger than that I have shown you, may be readily and successfully extracted through a dilated urethra if the dilatation is done rapidly under chloroform, and not slowly by sponge- or laminaria-tents, as was formerly the practice; but if very large masses are withdrawn, the urethra will be extensively lacerated, and incontinence will result. Of this we had an illustration in the hospital some months ago, in the case of a girl, aged eleven, who appeared to have suffered from bladder-symptoms all her life, but who had not been sounded until she was sent to me by an old pupil. I readily detected a stone, and it appeared to me of a size which could be removed per urethram without difficulty; and this operation I proceeded to perform on June 21. Having introduced a two-bladed dilator into the urethra, I enlarged the passage sufficiently to insinuate the little finger along a director into the bladder, and then with a pair of polypus-forceps readily grasped and removed this flat, nearly circular calculus of three-quarters of an inch diameter, weighing sixty-eight grains, and consisting of oxalate of lime coated with phosphates. On again introducing the finger, however, I discovered that there was another large mass of stone adherent to the upper part of the bladder, and too large to be extracted whole. Vaginal lithotomy was out of the question, on account of the small size of the parts; and I did not feel disposed to resort to the high operation, which was suggested by one of my colleagues. I therefore proceeded to break the stone down with forceps, having failed to apply a lithotrite on account of the attachment of the stone to the mucous membrane of the bladder. By repeated efforts, and after a prolonged operation, I broke off several pieces of the stone, and at last succeeded in detaching the mass which I show you, weighing 408 grains. This was slowly and steadily withdrawn through the urethra with a pair of small lithotomy-forceps. The nucleus of the large mass was exposed, as can be seen, and was found to be composed of oxalate of lime, the rest of the stone being carbonate and phosphate of lime. A careful washing out of the bladder brought away a quantity of *débris*, which have adhered together in drying, and weigh 80 grains—thus making the entire weight of stone removed at the operation 556 grains, or 9 drachms and 16 grains. The little patient was a good deal exhausted by the protracted operation under chloroform, and required stimulation. A linseed-meal poultice with half a drachm of laudanum on it was applied over the bladder and abdomen, and changed every four hours, and an opiate was given by the mouth. On the following day, notwithstanding assiduous poulticing, a sharp attack of peritonitis came on; but this subsided again in forty-eight hours, and from that time the patient made a good recovery. As was to be anticipated, from the dilatation and laceration the urethra had undergone, the urine passed involuntarily after the operation; and being anxious to see to what extent the laceration had gone, I put the patient under

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chloroform again on the tenth day after the operation. I found that the lower wall of the urethra had been torn, but was healing well; and I took the opportunity of removing from the vulva a quantity of thick vesical mucus holding calcareous matter in its meshes, which had collected about the parts, and extracted some of the same material from the bladder with forceps and a large syringe. The bladder was then washed out daily, and the patient took nitric acid with buchu. She did not recover any power over the neck of the bladder for a month after the operation; but on July 22 she was able to be up and about the ward, holding the urine for an hour or more; and on July 27 she went down to Eastbourne. On her return from Eastbourne it was found that she still had incontinence, and on examination the anterior part of the urethra was seen to be torn. To remedy this, the galvanic cautery was applied on three occasions with benefit, and without any interference with the patient's health. During the last week of September, however, she began to complain of great pain about the left kidney, and gradually sank, dying on October 1.

At the post-mortem examination an abscess was found in the upper part of the left kidney, which had burst. The pelvis of the kidney contained a quantity of grumous pus and particles of phosphatic matter, and the lining membrane of the pelvis and ureter was thickened and injected. On cutting into the right kidney its pelvis was found dilated and filled with pus around a large branched phosphatic calculus fitting into the infundibula; its ureter was also much thickened. The bladder was healthy and contracted. The urethra was of little more than ordinary size, and showed a slight rent in the floor at the orifice. The other organs were healthy.

Although this case terminated unfavourably, it was from the renal complication, and not from the consequences of the operation on the urethra. In a similar case occurring in a child in whom the vagina is not sufficiently dilated to admit of successful vaginal lithotomy, I should be inclined to resort to a form of perineal lithotomy closely resembling the lateral operation in the male, the female urethra being taken to represent the membranous urethra of the male. This operation was devised by Dr. Andrew Buchanan, of Glasgow, who has had several successful cases, and has also been practised by Dr. George Buchanan.(a)

If the calculus is too large to be safely extracted per urethram, recourse must be had to either lithotomy or lithotrity. Lithotrity is easier in the adult female than in the male, on account of the shortness and size of the urethra, which admits of the ready extraction of fragments which it would be unsafe or nearly impossible to withdraw along the male urethra. I show you here the fragments of a calculus measuring an inch and a quarter, which I removed by lithotrity from the bladder of a lady aged thirty-two. It consisted of oxalate of lime coated with phosphates, and the weight was over four drachms. Five sittings were required to free the bladder, and the patient made a good recovery, and has continued well. But if the stone is very large, and the bladder extremely irritable, lithotrity is out of the question, and some cutting operation must be undertaken. I have already referred to Dr. Buchanan's lateral operation, which seems well adapted to cases of large calculi in children, and have mentioned incidentally the high or supra-pubic operation. This latter has, however, such inherent difficulties and dangers of its own, that I should be loth to undertake it. It was performed in this hospital some years ago for the removal of a hairpin from the bladder of a girl, who unfortunately died a short time afterwards from the bursting into the peritoneum of an abscess which formed in connexion with the incision into the bladder.

The form of lithotomy which appears to me most applicable to the adult female is that per vaginam, which I have performed on two occasions for the removal of large stones. This operation must not be confounded with those in which the urethra is incised with the neck of the bladder, for its great advantage is that it leaves the urethra intact. It is no new proceeding, for it has been long known to surgeons, and its situation has been more than once selected by nature for the discharge of a calculus, by the formation of a vesico-vaginal fistula by ulceration. The modern improvement which renders that operation innocuous to the patient is the adoption of the wire suture to close the opening so soon as the stone is extracted, and thus to prevent the formation of a fistula. This operation has been employed by Dr. Marion Sims, Mr. James Lane, the late Mr. Baker Brown, and others, with success, and I adopted it in the two following cases:—

The first patient was a widow, aged forty-nine, who had long suffered from incontinence of urine. On examining her, I found a large calculus immediately within the urethra, and to be readily felt through the vaginal wall. Its size was evidently too great for it to be safely extracted per urethram: and the bladder was too irritable to admit of lithotrity. I determined, therefore, to perform vaginal lithotomy, closing the opening immediately with wire sutures. This was done under chloroform on May 27, 1871, when, the patient being in the lithotomy position, and the vagina rendered patent by means of a large Sims's speculum, I cut at once upon the stone through the anterior wall of the vagina from behind forwards, making an incision an inch and a half long, terminating behind the urethra. The stone was then readily grasped with a small pair of lithotomy-forceps, and extracted. It weighed 710 grains, or ten grains less than an ounce and a half, and measured two inches in length by one inch and a half, and one inch in thickness; and on section it will be seen to consist of three angular calculi (each of which has a nucleus of urate of lime), fitted to one another in a mass of carbonate and phosphate of lime, with slender layers of uric acid. This formation is accounted for by a fact which I ascertained on passing my finger into the bladder; for there was a distinct pouch, of capacity sufficient to hold the calculus, in which it had doubtless been lodged until quite recently, since the sound introduced a few days before the patient came under my care had failed to detect the stone. There was no hæmorrhage of any consequence, and I at once closed the opening with six wire sutures, passing them through the entire thickness of both vagina and bladder, and twisting them in the ordinary way. The urine was drawn off with the catheter for the first few days, and the stitches were removed at the end of a fortnight. The wound was perfectly healed at this time, but the patient had not recovered complete control over her bladder at night. This she entirely regained after using a belladonna pessary for a few nights; and as it was found that her uterus prolapsed on her straining, an elastic pessary was introduced into the vagina, and she was discharged on July 23 perfectly well.

My second case of vaginal lithotomy occurred in June, 1873, the patient being a married woman, aged forty, who had long suffered from pain about the bladder, which had always been referred to the uterus until she came under the care of Dr. Squarey, who detected the stone and sent her to me. I performed vaginal lithotomy without difficulty, but was obliged to make rather a large opening in the vesico-vaginal septum on account of the size of the stone, which you see is nearly circular,—its long diameter being two inches and seven-eighths, and its short diameter two inches and three-eighths, and its greatest thickness one inch and a quarter; it weighs two ounces and four grains. I closed the opening at once with wire sutures, and apparently all went well, but the whole of the incision did not unite, nor was I successful in closing the opening by a subsequent operation. There was a rather abundant phosphatic deposit about the wound and in the bladder, and this I believe was the cause of the failures. The patient's health being somewhat broken down, she went home for a time to recruit, and I propose to admit her shortly, and have no doubt I shall be able to close the resulting fistula. It is satisfactory, at all events, that the patient's sufferings have been relieved by the removal of the stone, and the incontinence she necessarily suffers from is only present when she is up: for, being able to retain the urine when in the recumbent position, she is not subjected to the discomfort of wetting her bed.

In performing vaginal lithotomy it is, I am sure, most important to make the incision sufficiently free to extract the stone without bruising the edges of the wound, since, if they are injured, the immediate union hoped for is less likely to occur. It is well to be reminded that there would be no danger of wounding the peritoneum, even if the incision were carried completely up to the os uteri; for you will remember that the serous membrane does not reach the front wall of the vagina, but is reflected from the body of the uterus to the bladder. I have known a surgeon seriously embarrass himself, and convert what is really an extremely simple proceeding into an operation of great difficulty, by making much too limited an incision. Again, whilst recommending you to carry your wire sutures completely through the vaginal and vesical walls, I would caution you against closing the urethra

(a) *Medical Times and Gazette*, May 3, 1862.

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by catching the roof of the bladder with one of the front sutures—an accident I have known occur in very able hands.

I do not recommend that a catheter should be tied in, although it may be advisable for the urine to be drawn off from time to time to save the patient from being disturbed. Dr. Meadows has shown that a retained catheter never keeps the bladder absolutely empty, and that cases of vesico-vaginal fistula do perfectly well without one; and I am quite sure that the pressure of a catheter is very apt to set up the irritation which it is our object to avoid.

ORIGINAL COMMUNICATIONS.

NOTES OF A CASE OF

HEMIPLEGIA FROM SOFTENING OF THE BRAIN AFTER LIGATURE OF THE EXTERNAL AND INTERNAL CAROTIDS,

WITH GENERAL REMARKS UPON THE SUBJECT.

By JAMES RUSSELL, M.D., F.R.C.P.,
Physician to the Birmingham General Hospital.

(*Continued from page 369.*)

In examining the cases of hemiplegia following ligature of the carotid I have collected, I shall adopt M. Richet's division into (1) primary and (2) delayed symptoms. To this division, and also to another into *general* and *local* symptoms, he attaches "a certain importance, because these divisions may place the surgeon in the way of forming a diagnosis, and consequently of selecting treatment." He observes that in the first or primary class the accidents are rarely grave, and generally are of a temporary character. Hemiplegia, "one of the gravest manifestations of cerebral trouble," generally belongs to the second or delayed class; in one case alone, he adds (that of Mr. Vincent), did hemiplegia occur so early as half an hour after the operation (406).

1. In twenty-one cases the symptoms of cerebral disorder presented themselves immediately or almost immediately after the operation. In one case they were delayed for three hours (the symptom was hemiplegia), in one for an hour and a half, in a third for an hour; in all the other cases they came on in less than an hour after the application of the ligature.

I have excluded from this first class eight cases in which the duration of the intervening period is defined by the words *soon*, *early*, *speedy*, *shortly*, and *few hours*, and have placed them in the second division.

Among these twenty-one cases are five in which hemiplegia was the earliest symptom, besides six others in which that symptom occurred at a later period.

In eleven of the cases the symptoms were not of the most severe description, though in some they were sufficiently serious; in six they lasted until the later appearance of hemiplegia. In one case the sole symptom was simply vertigo, which, however, kept the patient in bed for forty days. In five instances only did they pass away speedily. They consisted in these eleven cases of severe headache, in two cases with vomiting; faintness or actual unconsciousness; drowsiness and convulsive movements.

In the other ten cases of this division the symptoms were of a very grave character, and in several suggest forcibly the previous existence of some very special condition in the brain, rendering it peculiarly intolerant of any diminution in the supply of blood. I have already quoted from Chevers and Ehrmann three cases in which a ligature had been applied to *each carotid* in succession, with a safe interval between the operations; yet, in all the three cases, *each* ligature produced considerable disturbance of the cerebral functions. In such cases, also, marked peculiarity must be present in the organisation of the brain or of its vessels. The peculiarity, whatever it may be, is no doubt different in different cases. In one of the cases from my present collection, the symptoms almost bring before us Mr. Aston Key's famous case, in which death occurred in an hour or two, the opposite carotid being nearly closed at its origin by disease. In the case in question, collapse with convulsive movement occurred at the moment of tightening the ligature, the blanched condition of the conjunctiva pointing to the cause. The appearance of things for a few minutes was most alarming; it was doubtful if the patient would rally, and for several hours there was only partial consciousness. The symptoms were renewed on the third day, after hæmorrhage, and ended fatally. In Langenbeck's case the patient in a short time fell into a state of stupor, with involuntary evacuations, and died in thirty-four hours. Here there had been repeated hæmorrhages, which probably favoured the access of the symptoms, but lymph was found on the surface of the hemisphere corresponding to the side of the ligature, and the carotid was adherent externally and red internally, possibly constituting one of a class of cases to which I shall have to make special reference. In one of Mr. Vincent's cases the patient sank into a state of stupor in an hour and a half. Then followed hemiplegia, involuntary evacuations, dysphagia, and death on the sixth day. He was repeatedly bled to the amount of eighty-four ounces after the commencement of the symptoms.

I have stated that hemiplegia occurred in five cases very quickly after the operation; in one case it was "probably" the immediate result, but the particulars are very scanty. In another the patient "was found" paralysed in half an hour. In a third the patient is described as making violent efforts *during the operation* with the side of the body on which the ligature was placed, but never moving the opposite limbs; the hemiplegia ended in death on the fifth day. There was a sloughing cavity in the brain, and a fragment of tobacco-pipe remained embedded in the tonsil, having found admission there *five days before* the operation, and having perforated the carotid. Hence it is likely that cerebral changes secondary to arterial inflammation had been going on during the five preceding days, and were brought to a crisis by the sudden arrest of the circulation occasioned by the ligature. The other two cases presented hemiplegia in about an hour and in three hours respectively; in the latter case the paralysis was of the so-called alternate type, affecting the face on the side opposite to that on which the limbs were paralysed.

Besides these five cases in which hemiplegia occurred at once, there were six others in which hemiplegia took place at a later period, some of the other symptoms already mentioned, which dated from the period of the operation, having preceded it. Now, whatever be the explanation of the symptoms which preceded the occurrence of the paralysis in these six cases, there were undoubtedly special causes for the hemiplegia in certain of them. In one case in which the early symptoms were severe, the occurrence of hemiplegia, which took place a month afterwards, was certainly due to secondary inflammation through the medium of the bloodvessels; and here I may at once add another case in which the cause of the renewed symptoms was probably similar, although these symptoms, which ended speedily in death, were convulsions and coma in place of paralysis. Then in another case, the hemiplegia on the second day followed intoxication. Of the four cases of hemiplegia remaining, to which none of the foregoing explanations can be applied, it must be observed that in none does the paralysis stand alone; in all it was led up to by a series of symptoms. The process by which it was produced appeared to have originated directly after the completion of the operation. More or less severe headache, dating from the very period of the operation, preceded in two patients; the third was Mr. Nunneley's, in whom the alarming symptoms occurred during the operation which have been already described. In the fourth case severe headache and vomiting continued until the third day, when they ended in hemiplegia, and in death on the fifth. Such cases show that in many instances at least no safe separation can be effected between the morbid process which produces the early symptoms and that to which the later and more severe symptoms are attributable.

I have only to add that, in all the eleven cases of hemiplegia on which I have been remarking, the paralysis was permanent.

2. Pursuing M. Richet's arrangement, I come now to his second division—that, namely, of later or delayed symptoms. Twenty-one cases belong to this class, to which I must add, for the sake of convenience, three others in which the duration of the interval between the performance of the operation and the commencement of the symptoms is not specified. Among these cases we meet with the widest differences with respect to the period in the history at which the symptoms make their appearance—a circumstance itself affording strong probability that different causes were at work in different cases.

Beginning with seven cases in which the interval was characterised by the terms *soon*, *a few hours*, *the same evening*, etc., I pass to four in which the symptoms set in on the following day; after these occur single cases with the respective periods of thirty, and thirty-six hours; two, three, six, eight, and twenty-one days; one, two months; and nine w—

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Hemiplegia had occurred in seventeen of the cases, justifying M. Richet's statement that this grave symptom belongs rather to the later than to the early period of the case; for although it had been present in eleven instances of the preceding class, in six it was preceded by other symptoms through a decided interval. Serious as is the prognosis when hemiplegia occurs after ligature of the carotid, recovery, at least from the paralysis, took place in six cases; in four the paralysis not having been complete at any time.

Now, as hemiplegia was by far the most important of the symptoms in the present class of cases, an examination of the circumstances under which it took place will afford the best representation of the nature of the cases themselves. We may begin with two cases in which the hemiplegia was very late in its occurrence, four and eight weeks respectively having elapsed from the date of the operation; in both it was clearly due to the formation of cerebral abscesses in consequence of inflammation having attacked the aneurismal sac in one, and the ligatured carotid in the other. These two cases, then, belonged to that form of disease described by Dr. Wilks under the title of Arterial Pyæmia (*British Medical Journal*, March 28, 1868, and *Guy's Hospital Reports*). I have already given reason in justification of a similar explanation, either as regards arteries or veins, in four of the cases of the preceding class; if, then, I am correct, this explanation will apply to six cases out of the forty-five.

Guided by the suggestion afforded by these cases, I may next take three others in which a considerable interval (of six and eight days, and of nine weeks) had elapsed without important symptoms having occurred before the hemiplegia made its appearance. The sudden occurrence of the paralysis, accompanied with unconsciousness or convulsion in two of the cases, and in the third attended by constitutional irritation, suggests the probability of some accident connected with sudden change in the bloodvessels of the brain, such as embolism or thrombosis. One of these three cases was Majendie's, often quoted in connexion with the occurrence of cerebral lesion after ligature of the carotid; the patient ultimately recovered, but with a permanently deranged intellect. A second case also recovered. The third died, and there was no post-mortem examination. I shall presently adduce two cases in which coagulation of blood was actually ascertained to have occurred in the cerebral vessels.

In the case I have already quoted, furnished me by Mr. Baker, the paralysis did not occur until the twenty-first day, and was preceded for four or five days by most profuse secondary hæmorrhage, the patient having previously nearly fallen a victim to loss of blood before the carotid artery could be secured.

A note may be made of this case, as it shows one half only of the brain specially affected by the loss of blood, even at so late a period of the case; whence it would appear that some condition had existed previously to impede the equal distribution of the blood through that organ.

In three other cases the paralysis occurred on the third or fourth day after the operation, having been preceded in two of the three cases by headache, and in one of these also by fever, and being attended in the third case with delirium and fever. Recovery took place in all.

The paralysis was delayed so long as thirty hours in two only of the seven remaining cases. All the patients but one died; four in three or four days, two in eight or ten.

Two of these cases must be specially noticed as proving the existence of coagulation of blood in the cerebral vessels, already suggested as a possible or probable occurrence in certain of the preceding cases. One of these cases is recorded in the *Medical Times and Gazette*, vol. ii. 1864, p. 541. No immediate change occurred when the ligature was tightened, but respiration became gradually more embarrassed; hemiplegia took place next day, and the patient died on the fifth day. An interesting comment on the post-mortem appearances is quoted from Dr. Wilks. The hemisphere on the side of the ligature was of a dark red colour, owing to the arterial vessels of that side being plugged with coagula, from the point of deligation upwards throughout the branches; the sinuses contained merely recent coagula. The extreme vascularity described, pervaded all parts of the hemisphere—not only the surface, but also the interior. The whole of this portion of the brain was considerably softened, the softening extending to the nerves. It is observed that the supply of blood to the hemisphere had probably been lessened before the operation by the pressure of a large tumour in the neck, and with this may be connected the extensive softening. Considering also the age of the patient (sixty-four), the arteries may have been in an imperfect condition, and the heart-action was feeble. I would draw attention to the embarrassed state of the breathing, due no doubt in great part to interference with the nerves of the neck, as likely also to retard the return of blood from the brain, and so to favour coagulation. I make this remark because urgent nervous symptoms, arising from the cause just referred to, are present in several cases, and in some at least, as in this case, may have had a share in effecting the cerebral disturbance.

The second case is the one which has given occasion to the present paper. Both external and internal carotids were tied. The patient went on well for thirty-six hours; at the end of that time she fell asleep, but the sleep deepened, and rapidly passed into coma accompanied by stertor, and followed quickly by hemiplegia. Here also the respiration became much impeded, and swallowing difficult. She began to recover twelve hours afterwards, regained a sufficient amount of consciousness to recognise her son, but died somewhat suddenly on the sixth day. We found the middle cerebral artery on the side of the ligature, and its branches, completely plugged with coloured coagulum; the anterior cerebral was quite pervious; there was also some ecchymosis on the surface of the middle lobe. The entire district supplied by the obstructed artery was extensively softened, the softening reaching to the extra-ventricular portion of the corpus striatum. One peculiarity I observed connected with the state of the arteries forming the circle of Willis—viz., that the posterior communicating artery on the ligatured side "was contracted and perfectly empty." At the time of making the post-mortem I was not aware of Dr. Ehrmann's suggested explanation. I must, however, say that no similar condition is recorded in any of the cases I have been quoting. I should add that here also there was pressure by a tumour on the common carotid.

The liability to the particular form of accident of which the two foregoing cases are examples, seems from *à priori* considerations not to be small; it is connected with the peculiar circumstances under which the compensating supply is effected. This is not, as in other cases, through a number of small anastomosing branches, but by means of one or two single trunks. Hence any failure in the supply through these trunks would at once produce a very tardy current, as the blood of the whole of the branches affected directly by the ligature. Preceding hæmorrhage would, of course, favour the same condition; and further, by producing a state of general anæmia—a condition of blood known to favour the deposit of fibrin,—would leave the fibrin in the blood disproportionately abundant, thereby producing the tendency just stated. Any disease in the coats of the vessel—a circumstance especially likely to happen in cases of aneurism—would still further tend to bring about the same state of things. It must be added that these special difficulties which attach to the mode of carrying on the compensating circulation would also tend to produce diminished supply of blood to the brain; whether to the entire brain or only to one hemisphere, is a point on which M. Richet makes some forcible remarks.

Anyhow, these cases give support to the opinion that the processes by means of which the cerebral disorders are produced after carotid ligature must be of a varied character. A further illustration may be taken from Mr. Abernethy's case of ligature after an extensive wound of the neck. Mr. Abernethy was much struck with the similarity between the situation of his patient and that of a person suffering from the effect of concussion of the brain some time after the accident, when inflammation, which often succeeds, had begun. The patient died in thirty hours. The brain is stated to have presented marks of a considerable degree of inflammation: the vessels were full, and the pia mater injected—probably that condition of vascularity observed after arterial obstruction by Prévost and Cotard and by others ("Surgical Observations," vol. ii., p. 119).

The remaining cases of the present group may be dismissed with only a brief notice. In all but two (one of which was a case of delirium tremens) the patients recovered. The symptoms were delayed beyond the day following the operation in none of the four cases in which alone the interval is specified. Severe headache was the chief symptom in four cases; in two an attack of unconsciousness (in one of the two with convulsive movement). One of the patients "became gradually more delirious after the operation," and died

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comatose on the seventh day; on post-mortem examination, considerable vascularity and softening of the cerebral tissue was found.

(To be continued.)

NURSES FOR THE SICK POOR.

By JOHN W. OGLE, M.D. Oxon.,
Physician to St. George's Hospital.

CONSIDERING the extent to which the nursing of the sick in England, as well rich as poor, has of late attracted so much attention, and consequently has so greatly improved, any information respecting the early measures which were taken to bring about so desirable a result cannot fail, I think, to be of much interest, and also to be historically useful. It would perhaps be impossible, amidst so many circumstances which contributed to influence opinion, to single out any one cause which more than another tended to direct the public mind towards the necessity of providing better nurses for the sick poor; but I am disposed to think that by no means the least effective of such causes was the action taken by the Nursing Committee of the Epidemiological Society (although, as will be seen, they failed in bringing about the fulfilment of the scheme).

As the last secretary of this now practically, though not formally, disbanded Nursing Committee, it occurred to me that, having the minute books in custody, I could not do better than place on record, by means of the columns of the *Medical Times and Gazette*, an abstract of the steps taken by the aforesaid Committee.

The formation of the Committee was no doubt at the time made known to the readers of this periodical; but for the information of those who may now be ignorant of the function and perhaps even the existence, of that Committee, I would here observe that in May, 1854, the Epidemiological Society, under the presidency of the late Dr. Babington, appointed a committee to take into consideration the question of supplying the labouring classes throughout the country with nurses in epidemic and other diseases, and during the period of childbirth. The Committee eventually was a very large one, and consisted chiefly of members of the medical and clerical professions, but contained also no less than five masters of metropolitan workhouses. It assumed not only that such nurses were required for the speedy recovery of the sick, but also that it was the duty and interest of society to acknowledge and provide for this want, inasmuch as sickness, which in many ways presses more on the needy than the affluent, ruins and degrades the families of the poor, throws them as a burden on parish relief, and tends to decrease the wealth of the country by the loss of life which it occasions. Considering that the providing of nurses, easily available throughout the country, would diminish disease, and consequently mortality and pauperism, among the poor, arrest contagion, and lessen poor and county rates, they concluded that the workhouses present the training schools wherein those nurses may be trained, the 553 unions of England containing (in 1854) 20,000 able-bodied women, at present a source of unproductive expense to the country.(a) They proposed that, by an order of the Poor-law Board, "it be made imperative upon the master and matron of each workhouse to put the able-bodied females through a systematic training in the kitchen and infirmary; that when found sufficiently qualified to act as nurses, they shall receive a certificate of fitness, signed by the medical officer and master; and that a register of all such qualified nurses, whether residing in or out of the workhouse, be kept at the workhouse, and be open to the public as a means of obtaining nurses." And they considered that "the clergy of the parish, the medical men of the neighbourhood, the visiting societies, may not unreasonably be expected willingly to co-operate in exercising the necessary supervision, and thus aiding the workhouse authorities by moral control exercised after the nurse has left the workhouse. As soon as the sense of pauperism is removed by the independent exertion of the individual, his moral dignity is raised, and the community becomes doubly a gainer; while the good opinion of the public once secured in favour of those workhouse inmates who were selected to serve as nurses, would act as an incitement, probably even stronger than that of a pecuniary reward."

By inquiry of the masters and matrons of workhouses, and by examining into the arrangements of workhouses, they ascertained that their plan was quite practicable, and that the workhouses afforded the means of training nurses, of testing their efficiency, and of rendering them generally available in the sick-room. They engaged in extensive correspondence with masters of workhouses, and union medical officers, and clerks of the various boards of guardians, issuing forms of queries, etc., with the view of obtaining all particulars respecting the wants experienced throughout the country for nurses for the sick poor, and the chances of training and obtaining such from the various workhouses; and in the meantime the Committee appointed a deputation to Mr. Baines, of the Poor-law Board, for the purpose of stating their views,(b) and attempts were made to induce several members of Parliament to move for returns from the poor-law unions of England and Wales in reply to queries issued by the Committee. They then addressed the General Board of Health, requesting its attention to their scheme, and asking that a deputation be received. In the meantime the Poor-law Board, after receiving a deputation, sent word to the Nursing Committee that their proposal appeared to involve great difficulties both of a legal and practical nature. They objected that "in ordinary cases a large proportion of the able-bodied female inmates of workhouses are not persons whose conduct and character would qualify them for places of trust, and that with regard to a still larger class the guardians (upon whom the proposed plan would cast new duties of a very difficult and responsible kind) have no sufficient means of ascertaining whether they are persons of a description in all respects trustworthy or not. The stay in the workhouse of every adult inmate is necessarily uncertain. Such inmates may at any time leave the workhouse on a few hours' notice, and the guardians have no authority to retain at the charge of the poor-rates (even with their own consent) any who have the means of supporting themselves. The rules as to the treatment of paupers in the workhouse, and as to their temporary absence from the house, are necessarily of general application; and it appears to the Board that the introduction of such distinctions in these respects as are implied in the present (the Nursing Committee's) plan would be attended with the greatest difficulty. In some of the larger workhouses the Board believe that it has not been uncommon, in cases of exigency, to assign one or two of the female inmates as assistants to the paid nurse, but such arrangements are always of a temporary character, and are adopted or relinquished according to the existing necessities of the workhouse itself. These are some of the considerations which, without going into further details, lead the Board to the conclusion that the present proposal is not one which they could carry out consistently with a legal application of the poor-rates, or with those rules for the classification and management of workhouses upon which the guardians are accustomed to act, and which experience has sanctioned throughout the country. Whether the same object may be attained by some other means, and with the concurrence of the Legislature (which would probably be found necessary), is a point upon which the Board do not venture to express an opinion."

In reply to the above objections, the Nursing Committee expressed their regret that the Poor-law Board had arrived at the conclusion that the plan was impracticable, as the evidence in favour of their scheme generally, which they had received from masters of workhouses (the persons from whom they expected most opposition), was so strong(c) that they were led to hope that the Poor-law Board might yet be induced to realise a mode of hygienic relief to the country which the Committee were firmly persuaded would confer large and extensive benefits of a kind involving the best interests of

(a) According to a return, moved for by Mr. Sotheron, in the House of Commons in 1854, there were in the workhouses in England, at Lady-day in that year, no less than 24,203 able-bodied women, of whom 22,87[illegible] are of good character, and qualified, by instruction to be obtained therein, to become efficient or useful nurses.

(b) They also communicated through Mr. Pigott with the chairman and members of the Medical Relief Committee of the House of Commons, stating the object for which the Nursing Committee was founded as strongly bearing on the inquiry they were conducting; but unfortunately at this time its labours and inquiries had come to an end.

(c) The proposition of the Committee and its practicability had been submitted to the masters of five of our large workhouses—viz., to Mr. Meyrick, of Bethnal-green; Mr. Sanders, of the City of London; Mr. Ellis, of Greenwich; Mr. Knapp, of Wandsworth; and Mr. Piercey, of Lambeth,—and the answers of all these were more or less favourable to the scheme, and indicated that they would be happy to co-operate in its execution. This expression of opinion from those who, owing to their experience and position, were so well able to judge on such a subject, was most helpful, and ought to have carried weight against all objections.

humanity.(d) At a later date—viz., November 29, 1855—Lord Shaftesbury received a deputation from the Committee, including the masters of two or three workhouses, the result of which was that his lordship quite coincided with the views of the deputation, and promised in person to obtain a direct interview between the Poor-law Board and the deputation. This interview with Mr. Bouverie took place April 15, 1856, but the Board deemed it inexpedient to issue any general order regarding their proposal that nurses for the poor should be trained in union workhouses, such as had been, in draft, transmitted to them (at Lord Stanley's suggestion) by the Nursing Committee for approval. The Board, however, prepared a circular letter to their inspectors, instructing them to bring the subject under the notice of those boards of guardians in their several districts who appeared to them to possess the means of carrying into effect in any measure the plan indicated in their circular letter. In this circular letter, dated May 10, 1856, one which the Nursing Committee were permitted to use as a public document, the Poor-law Board wrote as follows to each inspector:—

"Sir,—Adverting to the circular memorandum which the Board addressed to you in February in 1855, in reference to a proposal made by the Epidemiological Society for the training in workhouses of nurses for the poor, and to your remarks upon it, I am directed by the Poor-law Board to inform you that their attention has been again directed to the subject, and that they think it desirable to communicate to you, for your guidance, the views which they now entertain respecting it.

"The Board are of opinion that any attempt on their part to establish authoritatively in workhouses a general system of training for nurses would be alike impracticable and inexpedient, and they communicated their opinion to the Secretary to the Epidemiological Society in March, 1855. At the same time, the Board think it not improbable that in large workhouses where a paid nurse is employed, it may sometimes be practicable to adopt a system under which such of the female inmates as may be trustworthy and competent for the work may be employed in the infirmary and sick wards, not only with the object of acting as assistants to the paid nurses, but also with the view of their being taught by them the duties of a nurse in such a manner as may subsequently enable them to support themselves by becoming nurses on their own independent account.

"It is of course unnecessary for the Board to point out that this species of employment must, however, be subject to the qualification that no person should be employed in attendance on infectious cases without her free consent. If such a scheme were carried successfully into effect, it is thought that recourse would be frequently had to the workhouses where it was in operation for nurses to attend the sick; and it is suggested that a register might be kept of the names and qualifications of those inmates who shall have been thus taught and who are fit for such attendance.

"The Board are accordingly desirous that some such plan should be suggested by you to any board of guardians within your district, in which the arrangements of the workhouse are, or may be made, such as to admit of its being carried into practical effect.

"The Board further request that in bringing the subject under the notice of any board of guardians, you will not fail to state the strong sense which they entertain of the evils resulting from the want of a sufficient number of trained and efficient nurses for the poor, and their confidence that the guardians will be ready to concur in any plan by which, consistently with a sound system of poor-law administration and with the laws regulating the expenditure of the poor-rate, their number may be increased."

Subsequently, Lord Courtenay, Secretary of the Poor-law Board, sanctioned the Nursing Committee in sending round to the various guardians of unions, to their clerks in England and Wales, to all the medical officers of unions, and also to the chaplains, printed copies of a proposed register of nurses, qualifications, form of certificates, etc., to be adopted in carrying out the nursing scheme, and requesting their co-operation. To these various applications a great number of replies were received.

At a later period the Committee, thinking it advisable to give particular attention to some individual union, with the idea of moving the guardians in favour of their scheme, communicated, by means of a sub-committee, with the guardians and vestrymen of the parish of Marylebone, and found that the majority of them were distinctly in favour of their plan; and afterwards had an official interview with the board of guardians of that parish. The result of this was that the board wrote saying that they "were about to make an arrangement whereby the views of the Epidemiological Society may ultimately be forwarded." The Committee also placed themselves in communication with several other boards of guardians in London, and requested that the board might nominate one of their members to join the Committee, thinking that such a proceeding would tend to promote their objects, whilst it would serve to render the board of guardians more intimately acquainted with the proceedings of the Committee. The Lambeth Board accordingly nominated one of themselves as their representative on the Nursing Committee. No result, however, of an immediate character came of this and not long afterwards, owing to a variety of circumstances interest began to flag, and the Committee ceased to sit.

Such is the condensed history of the efforts of the Committee,—efforts which were relaxed but too early, as we ought, I think, not to doubt that if pushed for a somewhat longer period, they might have produced the results aimed at by the Committee. Still, although the scheme was never so taken up as to be worked out by any union, it cannot but be that by the ventilation of their plans, and the extensive correspondence with parish authorities in the various parishes in England and Wales, the Committee did, in fact, great service in bringing the subject of the nursing of the poor before important and influential members of the public, and preparing the general mind for entertaining the views now so freely accepted as to the necessity of providing good nurses for the indigent sick. I must not fail also to state that, in order to carry out the intentions of the Nursing Committee, local or district committees were being organised, when the work came to a termination, in the following places—viz., York, Liverpool, Bedford, Bath, Cheltenham, Nottingham, Manchester, Oxford, Hereford, and Bristol.

Of the General Committee, Dr. Sibson acted as permanent chairman, and Dr. Camps as treasurer. The Rev. R. Holt and Dr. Sieveking were the first joint honorary secretaries, and it was mainly by the great activity of the latter gentleman that the exertions of the Committee were carried to the point which they reached.

I trust that it will be considered that sufficient interest attaches to the short history which I have given above of the movement in the direction of supplying nurses to the sick poor, to warrant the necessary occupation of space in the *Medical Times and Gazette*. May I not say that it gives ample encouragement for another attempt to organise that "raw material" which exists among the inmates of our workhouses? Might not this attempt be made by that Society which, as an offshoot from, and in connexion with, the Order of St. John of Jerusalem, is contemplated for the purpose of securing trained nurses for the sick poor, according to the suggestions of Sir Edmund Lechmere?

(d) About this time a communication took place between the Nursing Committee and the Honourable W. Cooper and Dr. Waller Lewis, relative to an amalgamation between the Committee and a Society for the Training of Nurses, but as the objects of the latter were limited to the (then existing) wants of the war in the East, any amalgamation proved impossible.

REPORT OF AN

APPARENTLY HOPELESS CASE OF BLINDNESS FROM STAPHYLOMA CORNEÆ IN BOTH EYES,

IN WHICH SIGHT WAS RESTORED BY OPERATION.

By CHARLES BELL TAYLOR, M.D., F.R.C.S.E.,
Honorary Surgeon to the Nottingham and Midland Eye Infirmary.

JOSEPH C., aged 24, who had been blind for two years, was sent to me from North Shields with the following history:—About three years ago, when in Ceylon, he suffered from severe and repeated attacks of inflammation of both eyes, for which he had been treated *secundem artem* by local surgeons. Not improving, he was removed to a general hospital in that place, where he remained six months, during which the corneæ ulcerated, and he was ultimately discharged, only just able to distinguish light from dark, with extensive dense opacities and projecting staphylomata of both eyes. On his return home he consulted several hospital surgeons, one of whom is also a distinguished ophthalmic surgeon, but the case

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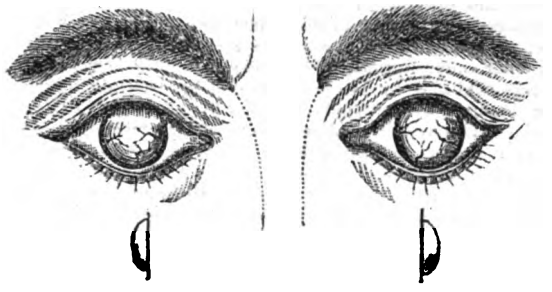
was pronounced hopeless, and his friends ultimately decided to send him to me. At first sight I had very little hope of benefiting my patient, as the circumferential rim of clear cornea was extremely minute, and I feared that the iris would probably be too diseased to permit of the formation of an artificial pupil. In this, however, I was agreeably disappointed, and ultimately succeeded, under chloroform, in removing nearly the whole iris in both eyes, and thus restored sufficient sight to enable him to read No 20 Jäger, and go about with facility. The accompanying woodcut, taken from



a sketch of this case kindly made for me by my friend Dr. Newcome, of the Middlesex Hospital, is an accurate delineation of the appearance presented by the eyes of this patient, both in face and in profile.

REPORTS OF HOSPITAL PRACTICE IN MEDICINE AND SURGERY.

UNIVERSITY COLLEGE HOSPITAL.

CASES UNDER THE CARE OF MR. ERICHSEN.

For the following reports we are indebted to Mr. Godlee:—

Case 1.—*Burn of the Little Finger, which was Anæsthetic, owing to an Injury some weeks previously to the Ulnar Nerve.*

Matilda C., a servant, was admitted into the hospital on January 26. She had been in before—December, 1873,—with an injury to her elbow involving the ulnar nerve. Finding that she could not feel the heat of some hot water with her little finger, she held it before the fire. As the rest of her hand was covered, she blistered the finger badly, and when she came to the hospital it was sloughing down to the bone, and the sloughing process was extending along the inner side of the palm of the hand.

January 26.—Chloroform was administered, and the House-Surgeon removed the little finger with the lower end of the fifth metacarpal bone by the oval-flap method. A rather severe attack of erysipelas followed, but on March 2 the patient was discharged well.

The above case affords an excellent and simple illustration of the susceptibility of tissues, whose nerve-supply has been destroyed, to sloughing after being exposed to very slight injury.

Case 2.—*Dyspnœa, the result of a Plug of Inspissated Mucus stopping against the Lower End of a Tracheotomy-Tube.*

Mary Louisa A., aged 53, needlewoman, was admitted on December 29, 1873.

The following report shows the advisability of removing the tracheotomy-tube for inspection every few months, in those cases where it is necessary to continue permanently, or for any long time, the use of one:—

The patient was in the hospital in February, 1868, under Sir William Jenner's care, when laryngotomy was performed for disease of larynx, probably syphilitic. She has had similar attacks of dyspnœa since her discharge. She says she has had pieces of flesh removed more than once—possibly granulations blocking up the tube; has worn the tube ever since. On admission the patient was suffering from considerable dyspnœa.

January 3.—Yesterday afternoon, at 3 p.m., dyspnœa became very urgent. At last it was decided to remove the tube, as it was thought, both by patient and observers, that there was something in the trachea striking against its lower end. Immediately on doing so, a violent fit of coughing caused the expulsion of a black mass, as large as a small bean, of horny consistence, which was with difficulty cut through with a scalpel. A thin microscopical section was made, which, when placed in water, swelled out into a soft gelatinous substance, and on microscopical examination proved to consist of granular corpuscles of small size in a clear matrix. Thus it was, no doubt, a mass of mucus, inspissated and dried by the unmoistened air passing through the tracheotomy-tube. Breathing became afterwards comparatively free. A little blood was coughed up, both before and after the hard mass. The tube was then cleaned and returned.

6th.—There are considerable tenderness and pain around the opening in the larynx, especially just below the tube.

13th.—Great pain about the throat. The tube was taken out this morning, but the breathing got so bad that it had to be replaced.

14th.—Feels very weak; complains of great pain about the throat.

19th.—Left the hospital in complete comfort, and without any dyspnœa.

Case 3.—*Aneurism of Anterior Tibial Artery, probably Diffused—Chronic Bright's Disease—Pressure (Digital and Instrumental)—Injection of Ergotine subcutaneously—Discharged himself.*

John M., aged 53, a labourer, was admitted under Dr. Wilson Fox on November 18, 1873, with the following history:—Has been a bricklayer's labourer for about twenty-four years, previous to which he was a farm labourer. Has always been very much exposed to the weather; has been married twenty-four years, and has had seven children; has been very irregular and intemperate in his mode of life. Always had very good health and been very strong and muscular until about three years ago, when he noticed giddiness and sparks before his eyes on making any great exertion. These symptoms kept getting worse till about two years ago, when he had a severe illness, and was in the hospital under Dr. Reynolds's care for three weeks. He had what he calls a very bad inflammation of his chest, which he thinks was caused by his being much exposed to the wet. He afterwards suffered from a sharp constant pain in his loins, and then swelling of his legs and scrotum. The œdema was quickly relieved by keeping in bed. On leaving the hospital he was sent to Walton for a fortnight; on his return he was an out-patient for about a month, after which he felt quite well.

About two months ago he again noticed a swelling of the legs and scrotum, and in addition to this a stiffness of the eyelids in the morning, and had a headache and pains in the loins. He had to leave off work, and keep in bed except for an hour or two at a time, on account of the rapid swelling of the legs on getting up. His appetite became very bad indeed, and for the last month he has had morning vomiting and a coppery taste in his mouth.

On December 9 the patient complained of severe shooting pain in the middle part of the right leg, passing down to the middle of the instep. Upon examination the front of the leg was found to be more swollen than on the other side. The swelling is not distinctly defined, but is about three inches long by two inches broad, only a little elevated, and situated at the junction of the middle with the upper third of the leg on the outer side of the tibia. This swelling is distinctly pulsatile, and expansile in all directions. The pulsation gradually diminishes at the periphery of the swelling, but it can be traced along the line of the anterior tibial artery from the knee to the ankle. No similar pulsation in the opposite leg. Dorsal artery of the foot can be felt pulsating as on the opposite side. Over the swelling is a loud rasping systolic bruit, faintly heard along the line of pulsation above described. Œdema of both legs equal. Mr. Erichsen saw the patient in the afternoon, and stated that there was a false circumscribed aneurism of the right anterior tibial artery. He ordered a pad to be bandaged over the swelling, and the limb to be wrapped in cotton-wool and to be kept elevated. He also ordered digital compression to be applied to the femoral artery.

10th.—Digital compression was kept up for three hours last night and for four hours this morning; but owing to the œdema of his thigh it was found impossible by this means to stop the pulsation and the bruit in the aneurism, or indeed to influence them much, so it was discontinued. His leg is still

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bandaged and raised. The compression caused only slight pain and disturbance.

December 13.—Pressure was kept up for three hours yesterday by a tourniquet applied round the femoral, but the patient could not bear it for more than an hour. The pulsation is less, but the tumour is no smaller. By compressing the posterior tibial behind the internal malleolus the anterior tibial could be stopped.

14th.—The pressure was again kept up yesterday for three hours. Patient says the pressure relieves the pain in the aneurism. Cannot sleep well. A cotton-elastic bandage was applied from the foot to the knee.

15th.—Pressure was applied yesterday for three hours. The patient complains of a good deal of pain in the leg.

16th.—Pressure was kept up yesterday for two hours. The pulsation has decidedly decreased. Could not sleep well last night, as the aneurism gave him so much pain. Temperature 98·4°; pulse 100.

17th.—Pressure was again kept up yesterday for three hours. Patient had another bad night; the leg still pains him very much. Temperature 98·4°; pulse 110.

18th.—Three hours' pressure was kept up yesterday; a small pad was ordered to be put over the dorsal artery of the foot, and bandaged on so as to stop the pulsation. The bruit is still very distinct; the pulsation is decreasing. His abdomen is increasing in size, and there is evidently a large amount of fluid present.

19th.—Has had a better night; the bruit is higher-pitched. Three hours' pressure was kept up yesterday. Temperature 98°; pulse 110.

20th.—Yesterday afternoon Mr. Erichsen injected one grain of ergotine dissolved in water and glycerine into the aneurism. Pressure was kept up for half an hour after the operation. It caused him a good deal of pain at first, but this soon subsided. Pressure was kept up for three hours yesterday morning. The veins on the right leg are a good deal enlarged. The ergotine was again injected this morning.

22nd.—Rather more than a grain of ergotine was injected this morning.

23rd.—Pressure was only kept up for one hour and a half yesterday, as the patient had a slight rigor. No more ergotine has been injected. The patient still complains of very great pain.

26th.—The tumour now measures three inches and a half across; the length cannot very well be measured, as the pulsation is so ill defined. The pulsation is just as great as ever it was. The bruit is very high-pitched over the tumour, but it is less distinct up or down the leg. Pressure was kept up the day before yesterday for three hours. Pressure was also kept up to-day for three hours. Temperature 98°; pulse 106.

29th.—Pressure was kept up for three hours on the 27th. He complains of a good deal of pain in the tumour.

30th.—The pulsation can only be very slightly felt at the upper part. The bruit is not very loud at the upper part, but is very distinct below.

31st.—Is not in any pain. The tumour is rather painful when it is touched. Bowels are very much constipated. The pulsation is quite stopped to-day.

January 1, 1874.—Patient has been disturbed a great deal through the night by severe cramps in the left calf. The bandage had to be taken off in the night, which afforded him some relief.

2nd.—There is slight pulsation to be felt all over the tumour. The measurements are—around the upper part, twelve inches and a half; around the middle part, twelve inches and a half; around the lower part, eleven inches and seven-eighths.

4th.—Pressure was kept up for three hours yesterday. The pulsation has quite stopped again this morning.

5th.—There is no pulsation in the tumour this morning; it has very much increased in size. The measurements are—around the upper part, thirteen inches; around the middle part, thirteen inches; around the lower part, twelve inches and seven-eighths.

6th.—Patient complains of great difficulty in breathing. The cramp in the calf disturbs him very much during the night. The tumour is gradually increasing in size. The measurements are—around the upper part, thirteen inches and a quarter; around the middle part, thirteen inches and a half; around the lower part, twelve inches and a quarter. There is a hard mass to be felt in the calf.

7th.—Patient left yesterday of his own will.

HOSPITAL FOR DISEASES OF THE NERVOUS SYSTEM.

CASE OF INFANTILE SYPHILITIC EPILEPSY.

(Under the care of Dr. ALTHAUS).

The diagnosis of syphilitic from idiopathic epilepsy is in some instances easy enough—viz., where there is a clear history of primary or secondary syphilitic disease in the patient, and where, in addition to the convulsive seizures, syphilitic manifestations are present on the skin, the mucous membranes, the peritoneum, and on the part of the cerebral nerves. Occasionally, however, convulsive seizures of a truly epileptiform character, and unquestionably owing to syphilis, constitute the only morbid appearances in a patient when their due appreciation becomes surrounded with considerable difficulties. A crucial test may, if nothing be elicited by strict inquiries, be taken *ex juvantibus et nocentibus*; for in cases where full doses of bromide of potassium are unable—we will not say to cure the disease, for bromide of potassium rarely does that—but to modify or arrest the attacks, a strong presumption for syphilis will be raised if similar doses of potassic iodide should have the effect of quickly subduing them. Epilepsy as a consequence of *inherited* syphilis is no doubt very rare, for the best authors are silent on this subject; but that it may occur in children without any other symptoms of secondary or tertiary syphilis, is shown by the following case:—

A boy, aged 9, of a sallow and anæmic complexion, was admitted as an out-patient under the care of Dr. Althaus, on April 7, 1873. His mother, who accompanied him, stated that he had had fits as a baby while teething for about six months consecutively. He then remained free from them until two years ago, when they commenced again quite suddenly, and without any apparent cause. They have continued ever since, and become lately particularly severe and frequent. Parents are healthy, and there are no nervous affections in the family. The boy, when questioned about premonitory symptoms, says that he "feels queer" in his head, and sees stars flying about, after which he knows no more until he awakes from the attack, with throbbing pain in the head, and soreness in his arms. The mother says that in the attack the head is turned to the left side; that the face and ears are of a purple colour. There is complete loss of consciousness, biting of tongue, foaming at mouth, discharge of the urine, and convulsion which lasts five or six minutes and is chiefly seen in the left side of the face and the upper extremities. He generally sleeps for an hour after the attack. His memory has lately become much impaired. He generally has four or five attacks in one day, and then goes a day or two without any, but is never free for a whole week, and has had as many as seven attacks in one day. His intellect appeared a good average one, and, with the exception of a certain degree of anæmia, no further morbid appearances could be discovered. Ordered potass. brom. gr. x., vin. ferri ʒij., aq. ad ʒj., ter die.

May 5.—There is as yet no change in the severity or number of the attacks, but the general appearance of the boy is improved. ℞. Potass. brom. gr. xv., ammon. carb. gr. iij. aq. ad ʒj., ter die.

June 9.—During the last ten days the fits have been particularly violent, and more numerous than they were before. There are a few bromide pustules on the face and neck. ℞. Potass. brom. gr. xx., liq. arsenicalis ℥ij., aq. ad ʒj., ter die.

July 26.—The fits continue much the same. Eruption rather more copious. Repeat mixture, and take a pill of one-quarter of a grain of ext. belladonnæ at bedtime.

October 6.—He has now taken the bromide in gradually increased doses for five months, and belladonna for more than two months, and is in no way improved. On the contrary, his mental condition is rather worse than it was before. The mother, who always brings the boy, requested advice to-day for an ulcer from which she had suffered for some time, and which was situated between the third and fourth toes of the left foot. This ulcer proved on inspection to be of a decidedly syphilitic character, and inquiry was at once made for other syphilitic symptoms in the mother. Nothing definite, however, was elicited, except that she acknowledged having frequently suffered from sore throat, which she thought due to cold. Questions were also asked whether the boy had ever suffered from snuffles, condylomata at the anus, and skin eruptions, but the mother denied that there ever had been any such

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appearances. An interview with the father of the child was now obtained, and he turned out to be saturated with syphilis. He had had an indurated sore with bubo fifteen years ago, roseola and sore throat a month afterwards, and had now two large and painful nodes on the left tibia. Suffered frequently from eruptions on the thighs and nocturnal headache. Has slight ptosis of the left eye, but is able to attend to his business, which is that of a cabinet-maker. The boy was now put on ten grains of potassic iodide ter die.

27th.—The fits have been less numerous and severe ever since the last medicine was ordered. During the whole of last week he had only one slight attack. Continue iodide.

November 17.—No fit since October 24. Rep. mist.

March 2, 1874.—Same report. Discharged cured.

In this case the diagnosis was rendered difficult, because the parents were reported healthy, and the boy had never shown any of the usual symptoms of inherited syphilis. The mother had had no miscarriages, probably because she had never conceived after the birth of this child. The case shows how important it is that in cases of epilepsy a stringent inquiry should be made about hereditary or acquired syphilis; and where the patients are children, this should be coupled, if possible, with actual examination of both parents. It also shows that it would be expedient in cases where bromide of potassium fails to reduce the frequency or severity of the attacks, to give full doses of the iodide, even if the inquiry into antecedent syphilis should lead to negative results.

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Medical Times and Gazette.

SATURDAY, APRIL 11, 1874.

THE DWELLINGS OF THE POOR.

We published last week the memorial presented by "The Corporation of the Royal College of Physicians of London" to the Prime Minister on the great and increasing overcrowding of the poor in London. The memorialists state that "overcrowding, especially in unwholesome and ill-constructed habitations, originates disease, leads to drunkenness and immorality, and is likely to produce discontent among the poorer portion of the population," and that the evil of overcrowding has been greatly increased of late years by the wholesale demolition of the houses inhabited by the poor, carried on under various railway and improvement Acts. They allege that private enterprise is powerless to provide the fresh and improved house-accommodation required for those thus expelled from their habitations, and to meet the demands of the constantly increasing population; and that the enabling powers at present entrusted to various authorities have proved, and must prove, insufficient to effect the desired object; and, considering that a remedy for these evils is urgently required, they hope that some prospect may be held out that Government will during the present session take up "this question of the dwellings of the London poor, upon which the health and morality of the people so much depend."

Some of our brethren may perhaps think that the evils, physical and moral, of overcrowding might have been more forcibly pointed out and more strongly dwelt on in this memorial, but we are sure that the profession at large will highly approve the action of the College in calling the attention of the Government to the subject. We are ourselves especially gratified by it, for we have frequently insisted that the deficiency of decent, healthy house-accommodation for the poor is one of the most urgent, and crying wants of the day. We have pointed out, over and over again, that while our labouring classes are compelled, as they now are, by want of sufficient house-room of any sort, to herd together in overcrowded, unwholesome, ill-constructed and ill-provided dwellings, they must deteriorate physically, morally, and intellectually; and that till sufficient and improved house-accommodation is provided for them, misery, immorality, drunkenness, disease, and discontent will abound and increase in spite of Education Acts, and of Lodging-house Acts of the present or any similar kind. It is well, then, that so weighty and important a body as the College of Physicians has memorialised the Government on the subject, and we are glad to see that our powerful contemporary the *Times* has been roused by the memorial of the College to speak out also on the matter. Its first utterance, indeed, was not encouraging; it could not but admit the existence of a great and "increasing modern difficulty" and evil, but seemed inclined only, or at least chiefly, to dwell on the difficulties and obstacles in the way of any sufficient remedy, to trust to time and education for a cure, and to be content to say that "when poor men, and rich men too, have really learnt what makes a house fit or unfit to live in, we may have some hope that at least a partial remedy will be found for existing evils." But "second thoughts are best," and, instructed by an admirable letter from Mr. C. B. P. Bosanquet, the *Times* on the 8th inst. treated of the subject of the dwellings of the poor in London in a manner more worthy of its influence and position. It admits that the presentation of such a memorial as that of the Royal College of Physicians to the Government "can hardly fail to be the starting-point of a fresh interest in this question"; and that while it is one thing to be prepared with a definite plan for remedying an evil, and another to be able to say that it demands immediate attention, "it was the part of the physicians to pronounce an opinion on the latter point, and they may fairly call upon statesmen, men of business, and philanthropists to provide a remedy." It declares that "the word 'impossible' has ceased to exist in the vocabulary of the social and sanitary reformer," and that "if a prevalent evil ought to be removed, it can be removed; but that the first essential step is to recognise the obligation,—and towards this advance the memorial of the College of Physicians is a most important assistance." Our contemporary then proceeds to point out in the most forcible manner the evils of "the general mode of life of the London poor," and to show that all the efforts of the clergy, the School Board, the charitable societies, and the numberless religious and philanthropic agencies at work "are continually and inevitably frustrated" by "the enormous power of deterioration now exerted on the London poor by the state of their dwellings"; that the atmosphere of these dwellings is "a steady, slow poison, moral and physical," the effect of which is to produce "a feeble and

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unwholesome population," which annually becomes a more considerable portion of the population. "We are in imminent danger of fostering among us vast town-populations unhealthy in body and mind, perpetuating their own physical degradation in their offspring, and a ready prey to the noxious moral or physical influences which are sure to arise among them."

The *Times* gives, in short, a most graphic description of the evils, present and impending, which we have often more feebly pictured; and it is difficult to imagine a condition of things more imperatively demanding the most anxious consideration of the Government of a country. The evils acknowledged to exist are great and menacing, and they are increasing, and not slowly assuming national proportions. What is to be done? It is admitted that "the point to be kept in view is that it is perfectly hopeless to encounter these evils with any general or permanent success unless the dwellings of the poor are improved"; and that if this fact is fully realised, and the best energies of all who are interested in social welfare are concentrated upon it, a remedy will be found. Bodies like the Peabody Trustees, and the Metropolitan Association for Improved Dwellings, are unable to cope successfully with evils of such vast proportions, though we may thankfully acknowledge the good that they do. The question is, In what way and to what extent can the Legislature or the Government interpose? And here we are not without some guidance from experience. Mr. Bosanquet points out that with the aid of Parliamentary powers for the compulsory purchase, with compensation, of unwholesome dwellings, the Municipalities of Glasgow and Edinburgh have successfully dealt with the same evils and difficulties as beset us: "they have bought up some of the worst districts in their cities under special Acts of Parliament; private enterprise has come forward readily to build other houses, for the working classes, though few persons were sanguine enough to anticipate this at first; and the ultimate loss to the rates is expected to be very small indeed." As the *Times* observes, "On the last point there need be little anxiety. Any slight apparent loss to the rates is sure to be more than counterbalanced by the saving due to the reduction of sickness and crime." This is surely a work that any Government should be glad and proud to initiate and help forward? Mr. Bosanquet suggests that the duty of carrying it out in London should be entrusted to the Corporation and the Metropolitan Board of Works for their respective jurisdiction. "The chief work," he remarks, "would fall to the latter, and, though it has not the prestige of a municipality, the Main Drainage Works and the Thames Embankment show that it has ability and energy to carry out large undertakings." And he points out that the overcrowding in London is not so directly due as is sometimes taken for granted to want of room for houses, for "the Metropolitan Association for Improved Dwellings states that 'while the population in Westminster (the most densely populated part of the metropolis) is only 235 persons to the acre,' they can house 1000 persons to the acre, 'including in the area the large courtyards and gardens attached' to their blocks." In conclusion we say, with the *Times*, "if we wish to avoid the systematic degradation of our city populations, we must discover how to adapt their habitations to the altered demands of the day"; and we will share in Mr. Bosanquet's confidence "that in London private enterprise will be ready and willing to carry out the work of reconstruction, the authorities imposing such conditions as may seem to them necessary in the interest of those who are displaced."

THE EDINBURGH UNIVERSITY EXTENSION SCHEME.

When Scotchmen, holding all varieties of political and religious opinions, join shoulder to shoulder for the purpose of promoting a common interest, the result may be looked upon as a foregone conclusion. A meeting, held in the Edinburgh Queen-street Hall, on the afternoon of Monday last, with the view of advocating the extension and improvement of the Edinburgh University buildings, was characterised by that amount of precision of motive and determination of purpose which cannot fail to secure the success of the scheme for the advancement of which the meeting was convened. The measures proposed by the distinguished committee who manifest so engrossing an interest in the improvement of the University cannot be better stated than in their own words. They are—

"1. To purchase the sites of Park-place and Teviot-row. (This has been already effected at a cost of about £33,000.)

"2. To erect in the immediate vicinity of the New Royal Infirmary complete class-rooms, theatres, laboratories, and museums, with the latest scientific improvements, for the medical faculty of the University of Edinburgh.

"3. To reorganise the existing class-rooms of the College, and to improve them in direct adaptation to the wants of the several professors in the faculties of arts, law, and theology.

"4. To provide increased and more convenient accommodation for the University library.

"5. To erect a University hall for the conferring of degrees, the holding of examinations, and for all public academical ceremonials.

"6. To improve to some extent the north front of the present College building."

It will be observed that the leading feature of the present scheme is to provide, in the neighbourhood of the New Edinburgh Royal Infirmary, such a block of buildings and set of scientific appliances as will meet the requirements of the medical school, and leave the accommodation in the present University buildings subservient to the purposes of the other faculties. It is desired as an absolute necessity arising from the great and increasing success of the teaching of medicine in Edinburgh University, to supply the University with every requisite sufficient to secure not only the maintenance of its present high standard, but the continuance of its gratifying prosperity. Those who have been connected with the management of the University must for several years have been painfully impressed with the idea that they must, of necessity, procure the improvement of the buildings and properties in two respects. The first and most evident drawback—that of deficient accommodation for the everyday duties of teaching, even as it has hitherto been conducted—has been demonstrated by the overcrowded condition of class-rooms; and a second imperative requirement must have thrust itself upon the attention of all who are interested in the University—namely, the necessity for the erection and equipment of scientific laboratories for the prosecution of original research, and the introduction of a more practical method of teaching. That the accommodation for medical instruction in Edinburgh University is sadly deficient, is at once admitted by all who know the limited size and number of its class-rooms, and who remember at the same time the large increase in the influx of students. But the necessity for a comprehensive system of laboratories is not so evident till the spirit of the age has been properly interpreted with regard to scientific education and pursuits. To make this feature of their case clear to those whom they look upon as future subscribers, the provisional committee could not have found a more suitable man than the Right Hon. Lyon Playfair, M.P. His intimate knowledge of the subject, his warm interest in the prosperity of the University with which he has been so long and so pleasantly associated, and the potency of his influence with those who are in a position to become the benefactors of the Edinburgh College, combine to distinguish him as an unexceptional advocate of the scheme for procuring extended and more practical means of promoting the investigation and study of the medical and other sciences. At the meeting in Queen-street Hall, Dr. Playfair advocated the

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formation of laboratories by showing how largely the progress of civilisation was influenced by the advance of science, and how completely commercial relations were altered and manufacturing industries established or ruined by an appreciation or neglect of its teachings. He showed that in our day the discoverers and teachers of science were "the artisans of civilisation," and that a recognition of this principle was necessary to procure for Scotchmen that certainty of success which their superiority in general intelligence had in former times secured to them. He pointed out that this reformation in scientific investigation and teaching was necessary, not only to keep Edinburgh in advance of her contemporaries, but was an imperative requirement for the maintenance of equality with them. Berlin, Bonn, Leipsic, Stuttgardt, Carlsruhe, and Prague had already taken the initiative; Oxford had followed; and Cambridge was about to establish the means of practical scientific investigation and teaching. Dr. Playfair was followed by the Lord President (Inglis), who affirmed that what was wanted was the acquisition of those "material appliances which are necessary, absolutely and indispensably necessary, for academic efficiency." He especially proposed the erection of a hall suitable for the examination and graduation requirements of the University. But it is unnecessary to specify the line of argument adopted by the several speakers who advocated the extension of the University buildings, when all—from the Lord Provost in his opening speech, and the Duke of Buccleuch in his introduction of the first motion, to the formal conclusion of the meeting—expressed nothing but cordial sympathy, and a conviction and determination that the scheme should be a successful one.

In the meantime, if the subscription-list for the purpose of effecting the extensions summarised by the Committee should happen to meet the eye of the sarcastic Englishman who affirmed that farthings were coined to give Scotchmen an opportunity of contributing to charitable and public schemes, we have no doubt that he will at once recall his ungenerous sneer. It seems that £100,000 was the sum required for the purposes of the extension. Of this over £50,000 has already been subscribed, and, now that the scheme has been advocated in a manner becoming its importance, we join in the anticipation of the speakers at the recent meeting that the whole sum will soon be secured. The Duke of Buccleuch suggests an application to the Government, and, as a more definite and immediately satisfactory mode of help, subscribes £2000. A bequest by Sir David Baxter, the munificent patron of the University during his lifetime, heads the list with £18,000. There are four subscriptions of £1000, four of £500, one of £400, twenty-seven of £200, and so on. At the present time all that we can do is to remind the many medical graduates of Edinburgh University how pleasant and profitable are their recollections of their *Alma Mater;* how highly productive of benefit and satisfaction have been the teachings of the Edinburgh School; and how fondly they cherish their reminiscences of University life. We would ask them to take this opportunity of showing their interest in their *Alma Mater* by lending a hand in the work of establishing her in circumstances suitable for the maintenance of her high position and the advancement of her well-being.

THE DISCUSSION ON CANCER AT THE PATHOLOGICAL SOCIETY.

The discussion on cancer at the Pathological Society was resumed for the second time on the evening of Tuesday, the 7th inst., when the meeting, although not so crowded as on the first two evenings of the debate, was sufficiently large to testify to the great interest felt in the subject. Nor was this interest allowed to flag during the third evening of the discussion, for, thanks to the breadth of the subject and the variety of opinion and style of expression on the part of the speakers, fresh views were continually presented to the consideration of the audience. In a highly characteristic speech, Dr. Moxon led off for the evening. Before entering upon the subject proper, or even stating his belief regarding the origin of cancer, the speaker, like Dr. Payne, who had spoken immediately before him, urged that the precise question under consideration should be re-stated and clearly comprehended. The previous speakers had rather given graphic representations of various features in the history of cancer than discussed its real nature and origin; and in the second respect seemed to agree in regarding it as at once general and local. To Dr. Moxon's mind the local and general views are incompatible. The real question at issue is—Does the first cancer which appears in the patient's body generate the succeeding, or does it simply precede them, the body putting out the first as it does the second and third? The two possible answers are irreconcilable; and in them is involved the whole question of treatment, of immediate operation, or of hopeless resignation. Unfortunately, this plain statement of the point at issue had been disregarded in the debate, and certain ambiguous phrases dragged in. Against these Dr. Moxon strongly protested, and especially against the word "constitutional" as opposed to "local." He would drop the expression, and, adopting the word "general" instead, would pass on to the question—a good question, and one which, with past and future material at their command, seemed hopefully soluble—Which of the two comes first, the local or the general manifestation of cancer? Without hesitation, Dr. Moxon indicated his position—he was "strictly a localist." In support of this view, he stated three propositions which would be generally allowed to be true, and which deserve careful consideration, as they leave no room for a general carcinosis:—Cancer spreads locally; it runs along the lymphatics to the glands; and it makes its way to remote organs through the bloodvessels. But there is more evidence, and one of the most powerful portions of it is the character of the secondary growth in a case of cancer; it is the same as that of the primary. Cancer of the liver growing after cancer of the rectum may present tubular-gland structure, and cancer of the lung following malignant disease of the humerus may present bony tissue. It might truly be said that the disease of the liver and lung are secondary, and that the rectum and bone "spermatise" these viscera, as Mr. Simon had put it. There is another argument in favour of the local origin of cancer—namely, that the secondary growth is manifestly due to the transformation of the elements of the organ which is its seat to the type of the original or primary disease. In cancer of the liver one may study the gland-cells becoming transformed into cancer-cells. Now, if these facts could be found to apply in all instances of cancer, there would be positively no alternative but the acceptation of the local origin of cancer. But there were certain difficulties, and some of these had been insisted on by Sir James Paget. There was the hereditability of the disease, and there was the manner of inheritance. But many kinds of tumours are hereditary; and, as Mr. Hutchinson had pointed out, cancer might be inherited, not as cancer, but as a simple growth—such as a wart. In regard to the inheritance of cancer, Dr. Moxon wished to mention the remarkable fact that Mr. Birkett, after a long experience, was not able to find that the disease was hereditary at all. Then as to the recurrence of cancer after operation, the localists easily show how this is possible by the growth being imperfectly removed. That cancer should be considered a general disease because it might be produced by a wound is, according to Dr. Moxon, a mistake, for its occurrence in this way simply shows that, like tubercle, it may begin locally. Dr. Moxon would indeed go with Mr. Simon when he classifies

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cancer with tubercle and syphilis as general diseases arising from a local origin.

Mr. Erichsen, on rising, at once ranged himself on the side of the "localists." Unwilling to go over the same ground, and repeat the many arguments in favour of this view, he confined his remarks to certain points which had not been previously touched upon, and yet had a marked bearing on the subject. First, as affecting the question of recurrence of cancer, there was to be considered the extreme vascularity, not of the tumour itself, but of its neighbourhood. This condition, which is familiar to every operating surgeon, is manifestly due to the demand for blood made by the growing tumour, and so far favours the local view. But this vascularity also tends to wash the cancer elements early into the circulation, establishing a cachexy perhaps as speedily as a perceptible tumour can be discovered. Then the complete absence of a capsule in a cancerous growth from first to last is in favour of local and general infection. As to inheritance in cancer, Mr. Erichsen would not give any personal opinion on this point, but remarked that it is doubtful. But, granting that cancer is hereditary, this does not make it constitutional; neither is the fact of cancer skipping a generation in its descent in a family, because the cancerous age is not attained, a more powerful argument in this direction, for the same may be said of premature baldness. Another point which had not been noticed in this discussion seemed to deserve attention as important in determining the real origin of cancer—namely, its geographical distribution. At present it told for and against both theories. In conclusion, Mr. Erichsen allowed that there is a certain frame of body which one gets accustomed to, which comes to the surgeon's eye as a typical constitution in which cancer is likely to occur, and, once occurring, will run its course in spite of treatment. Like syphilis, cancer may begin locally, but, like syphilis, it will in such a constitution run a most virulent course, and every operation to arrest it will be in vain.

Dr. Crisp's remarks were chiefly of a critical character upon the speeches of the previous speakers, various points in which he attacked *seriatim*. He believed Mr. De Morgan's estimate that about 90 per cent. of cancer cases occur in the uterus and mamma is incorrect. He doubted the influence of geographical distribution referred to by Mr. Erichsen, attributing the prevalence of the disease in particular districts rather to intermarriage. Neither did statistics support Sir James Paget's view of cancer being a disease of degeneracy and old age. As to its blood origin, Dr. Crisp reminded his hearers that Brodie resolved after great experience not to remove a cancerous breast without putting to the patient the small chances of recovery. Dr. Crisp also thinks cancer might be called a parasitic disease. After referring to the infrequency of cancer in the Quadrumana, Dr. Crisp concluded his speech by expressing his opinion that "constitutional" is the best term that can be adopted under the circumstances.

Mr. Howard Marsh speedily declared himself a generalist, and supported the arguments of Sir James Paget with some very important evidence. He objected to much that had been said by Dr. Moxon and Mr. Erichsen as being really beside the question at issue; they had discussed, not the origin of cancer, but its spread, in regard to which probably all were agreed. He also took exception to Sir William Gull's argument from the ovum, pointing out that if blood did not exist in it neither did limbs, and that, when the tissues and organs are developed from the ovum, the blood is the same, and becomes a locality. Mr. Marsh's positive arguments were drawn from several cases which he briefly described. A healthy man broke his fibula, and in a week had cancer at the seat of fracture; a boy had his eye struck by an oyster-shell, and speedily had a fungoid cancer of the globe; a boy hurt his knee-joint, and cancer was rapidly developed. "How," asked Mr. Marsh, "can these cases be explained on the local theory? Were these persons struck at the very spots which were susceptible of becoming cancerous?" On the general theory such cases were easily accounted for. In regard to the rarity of cancerous affection of both mammary glands in the same patient, he mentioned that two instances of this double occurrence were at present in St. Bartholomew's Hospital.

The discussion was adjourned until the next meeting of the Society, when the President has promised to take part in it.

HOSPITAL SUNDAY AND HOSPITAL SATURDAY.

In the outset of the Hospital Sunday movement we could not shut our eyes to the numberless disadvantages which were attached to the notion. The originators of the scheme pointed triumphantly to the benefits derived by provincial charities from this annual method of recruiting their finances, and, in all good faith, vigorously urged its adoption in London; but we venture to think that, though anxious to promote the welfare of the London hospitals, the movement in question will eventually be found to have had a directly contrary effect. The vast charity of this large metropolis is, so to speak, precarious, and many persons who have hitherto assisted, by donations or subscriptions, to keep the London hospitals in funds, will refuse to continue their assistance after subscribing to the collection made upon a given Hospital Sunday. It may be argued that, having contributed upon this special occasion, the charities in question have benefited to an equal extent; but this proposition we venture to doubt. But, as a further complication of this knotty question, there has lately been started a "Hospital Saturday" collection, at which it is contemplated to realise an additional sum by an appeal to the working classes. As a natural result, the two committees have clashed, and we now hear that in consequence of the Hospital Sunday Fund Committee having passed a resolution requesting their secretaries to put themselves in communication with the leaders of the working classes, to ascertain if any of them would assist in making arrangements for collecting on Hospital Saturday, June 13 next, the Hospital Saturday Fund Committee has unanimously adopted a resolution to the effect "that the action of the Management Committee of the Hospital Sunday Council, in directing its honorary secretaries to put themselves in communication with the leaders of the working classes, for the purpose of promoting a Hospital Saturday collection in London on a date different from that previously fixed by this Committee, is a direct contravention of the understanding arrived at when they invited Captain Mercier to become a member of the Council; and that if the course taken by the Committee of the Sunday movement is sanctioned by the Council, this Committee feels that its chairman can no longer retain his seat as a member of that body."

Hence, therefore, we have the elements of a misunderstanding between the two committees who have undertaken to stand between the general body of the public and its open-handed largesse to the hospitals of London; and we repeat that the consequences can only result disastrously to the funds of the latter. A very large sum of money has up to the present time been annually forthcoming to support these charities; and whilst giving the originators of the new project every credit for their motives in instituting a Hospital Sunday or Saturday collection, we think that in the long run it will be found the new system is open to many objections which did not exist under the old arrangement, and we are of opinion that the interests of charity in this particular direction would by no means suffer if "Hospital Sundays" and "Hospital Saturdays" were done away with, so far as the metropolis itself is concerned, and the funds of the various hospitals of London were left to be recruited in the manner which has been adopted for so many years past.

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Some of the arguments addressed to the working classes, especially with regard to the Hospital Saturday, are most objectionable. They amount to this: that if they subscribe a certain amount they are entitled to demand the attention of the hospital physicians and surgeons—a position which, we fancy, few of these gentlemen will be inclined to accept. Moreover, they profess to demand representation on the various governing bodies. This is all very well, but as these bodies generally meet at hours which are hardly convenient for working men really so called, the next demand must be a modification of these. What next we dare hardly say.

THE WEEK.

TOPICS OF THE DAY.

We venture to think that no one will grudge the gentlemen belonging to our profession, who have done their duty so well, the distinctions which have been conferred upon them for their services on the Gold Coast; and if in the list now published we do not find the names of all those gallant officers who so eagerly volunteered to place their medical services at the disposal of the authorities for service on the Gold Coast, it must be borne in mind that all cannot be first in the great race for fame, and that with equal desire to distinguish themselves, opportunity will yet only present itself to the chosen few. There is one name that we miss from this gazette—that of Surgeon-Major Rowe, who was appointed medical officer to the contingent raised by Captain Glover. This officer must have had a very arduous duty to perform in the long march by the Volta route which eventually landed Glover's little army at Coomassie after the place had been taken by Sir Garnet Wolseley's force; but we have heard it rumoured that his services will eventually be recognised as they deserve, when Captain Glover and his gallant officers have received their share of the nation's bounty. Private letters from the *Victor Emmanuel* state that nearly all the sick on board are convalescent, and will be able to join their several corps on disembarkation. The two West India regiments remain at Cape Coast Castle, and in the environs. Several of the officers are down with fever, which is not astonishing seeing that the rainy season has now fairly set in. It is stated to be the intention of her Majesty to hold a review at Osborne of all the officers and men of the Royal Navy, and Royal Marine Artillery, and Light Infantry who took part in the Ashantee expedition, on the arrival of the seamen and marines in this country; and when this inspection has taken place, the Ashantee war will have become a thing of the past.

With reference to the subject of unseaworthy sailors, which is now attracting general attention, Mr. Harry Leach, in a letter to the *Times* on Wednesday, after some general remarks says that a compulsory and universal medical examination of seamen before signing articles would be next to impossible, because the supply would at once fall short of the demand. He therefore suggests, as a middle course, the following propositions, which, if not sufficient to meet all the necessities of the case, would to some extent check the shipping of physically incapable sailors:—

"1. That when a medical officer is borne on a ship's books, such officer should always be present at the shipping office when articles are signed, to advise the master or mate as to the choice of his men. 2. That the shipping-master should be officially empowered to secure the attendance of a medical inspector, when requested to do so by the owner or master of any ship, in order to advise the latter on sanitary matters in the choice of his crew. 3. That the Board of Trade (representing the Emigration Office) should require the crews of all vessels carrying emigrants to be examined by their own medical inspectors."

The long-agitated question with respect to the private slaughter-houses in London seems to be in a fair way of being settled. It is high time that some definite plan should be arrived at, considering the vast interests involved in the matter. The Society of Medical Officers of Health have passed a resolution to the following effect:—"This Society are of opinion that the slaughtering of cattle in the private slaughter-houses of London should be abolished, and that a certain number of public slaughter-houses should be erected, either under the supervision of the Corporation of London or of the Metropolitan Board of Works, and urge that the erection and management of such buildings should be undertaken forthwith." A copy of the resolution has been forwarded by the Society's honorary secretary, Dr. J. Northcote Vinen, to the Metropolitan Board of Works. The subject was brought before the Board at their last meeting, and was referred to a committee.

A decree of the Prefect of the Seine, forbidding the lectures and clinical instruction given every Sunday in the hospitals of Bicêtre and La Salpétrière, and in the Asylum of Sainte Anne, by physicians whose speciality is the treatment of insanity, is still producing a good deal of indignation in the medical and scientific circles in Paris. This prohibition will involve considerable loss to the profession, and must be in every way regretted.

The Medical Officer of Health for Wrexham, in his last monthly report to the Town Council, stated that, owing to an epidemic of measles and scarlet fever, there had been 36 deaths, making the ratio of mortality 50·4 per 1000 per annum, the death-rate for the corresponding month last year being 28·1 per 1000 per annum. He complained that the medical gentlemen in the town did not communicate with him sufficiently—they had not reported a single case of measles to him. The authorities, in consequence of this complaint, unanimously decided that these medical gentlemen be requested to communicate more regularly with the Medical Officer of Health. We hope that the request will be conveyed to the medical gentlemen in question in courteous terms, and that a favourable response will be the result.

We understand that as an initiatory step towards promoting the ventilation of the subject, with the view of introducing cremation into this country, a declaration circulated by a recently formed Cremation Society is being signed in the metropolis.

Mr. William Ward, of Horbury, a guardian of the poor for that town, presided last week at a meeting held at Ossett in connexion with the Anti-Vaccination League. Mr. F. Fox, a member of the Board of Guardians for Dewsbury, brought before the meeting in very vivid terms the evils of compulsory vaccination, and a resolution was unanimously adopted to oppose all candidates for the Board of Guardians who are in favour of compulsory vaccination.

Remarking on the overcrowded localities in the district of Whitechapel, Dr. John Liddle, the Medical Officer of Health, suggests that "the best plan of improving these localities is for the Metropolitan Board of Works to obtain powers for the compulsory purchase of lands and houses which are unfit for habitation, and sell the ground either to private individuals or public companies for the purpose of erecting suitable dwellings for the working classes, according to plans prepared by their surveyor and approved by the Board." We think the Metropolitan Board of Works should take the initiative in the endeavour to obtain compulsory powers to improve these overcrowded districts. To meet the existing wretchedly insanitary condition of these localities to any appreciable extent it must be undertaken by a public authority such as this Board; private enterprise can hardly be expected to undertake so gigantic a work.

The death is announced, at Rome, of Dr. Viale, physician to the Pope, at the age of eighty-five years.

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During March, states Dr. Frankland, in his report on the London water-supply, all the companies except the Kent, the New River, and the West Middlesex, supplied water which was "slightly turbid, contained living and moving organisms, and was not fit to be used for dietetic purposes."

Sir Alexander Armstrong has been reappointed for a further period of five years the Medical Director-General of the Navy.

THE SICK AND WOUNDED FROM THE GOLD COAST.

In another column will be found some interesting details as to the sick and wounded from the Gold Coast. These, together with the cases and letters we are publishing from the *Victor Emmanuel*, will help towards a medical history of the war, but it will be long before this is complete. The history of one of the most interesting portions of the expedition, of which we have heard least, is unfortunately endangered by the serious illness of Captain Butler, who lies at Netley sick of fever and dysentery, together with serious head symptoms. This gentleman has already proved himself skilful with his pen in his works "The Great Lone Land" (not the "Love Lorn Land," as by a curious error it was printed by one of our professional contemporaries), and the "Wild North Land." Moreover, his experiences were unique, and we had been led to anticipate much from his narration of them. We trust he will soon be well.

DEATH OF MR. MC CARTHY.

It will be with much regret that many will hear of the untimely end of Mr. McCarthy, for some time attached to the 23rd Regiment, and highly esteemed by his comrades. He had been doing duty on the Gold Coast, and was seized with the pernicious fever of that region. He was on his way home in the *Victor Emmanuel*, and had reached St. Vincent. Latterly, brain symptoms had become decided in his case, and whilst suffering from these he managed to elude the vigilance of the orderlies set over him, and jumped through a port into the sea, and was drowned. In all troopships these ports are guarded by two slender perpendicular iron-rods. In the construction of our hospital-ships for the future the same precaution may well be taken.

THE DUTCH IN ATCHIN.

Private advices from the Dutch camp before Atchin, up to February 13, describe the capture of the fortress called Kraton, which, as is generally the case, was a combination of fortress and palace, and full of old artillery of every date and nation conceivable—one cannon bearing the arms of England, and the inscription "Jacobus Rex, 1617." Cholera was still prevalent and fatal; much more than the Atchinese, though these were by no means deficient in pertinacity. They harass outposts, attack columns on the march, beat up the Dutch quarters at night, and keep up a regular *qui vive*, without standing a pitched battle.

THE INTERNATIONAL EXHIBITION.

One of the most important, and certainly not the least interesting, sections in this year's International Exhibition is that devoted to the display of sanitary apparatus and the demonstration of processes which have been advanced for the purpose of utilising and disposing of the sewage of our great towns. Few questions have occupied a greater amount of attention on the part of those interested in the public health than that of the disposal of sewage, and the Commissioners of the Exhibition have shown their wisdom by inviting sanitary engineers and others to submit their plans to the judgment of the public. At present it is impossible to give a critical report on the merits of the various sanitary schemes and apparatus—this we hope to do on a future occasion; meantime we may mention a few of the objects of especial interest to the medical profession. Filters and water-purifying apparatus in iron and stoneware are exhibited by Mr. George Cheavin, of the Bargate Filter Works, Boston; Messrs. Smith and Co., Old Kent-road; and the Water Purifying Company. Mr. P. Hinckes Bird, F.R.C.S., of Norfolk-square, exhibits plans, etc., of his inventions for insuring fresh air and pure water *without cost*. Among the ventilating apparatus we noticed a sanitary flue invented by a member of the medical profession—Mr. Ancell Ball, of Spalding,—and said to be suitable either for the cottage or the mansion. Messrs. Bailey's model of apparatus for ventilation by means of an exhausting air-pump and hydraulic engine is worthy of notice. Of closets and urinals there are, as might be expected, a large number of exhibitors, and for each system is claimed efficiency and immunity from bad smells. The Goux Manure and Sanitary Company exhibit their patent absorbent and sanitary closets. Morell's ash-screening closets are shown by the Sanitary and Economic Manure Company, in which ashes are used to deodorise the excreta and form a valuable manure. Dry earth-closets are exhibited by Mr. Parker, of Woodstock, and by Moule's Patent Earth-closet Company, who also exhibit a model of their new method of working dry earth-closets upstairs. The Peat Engineering and Filtration Company show their new "Nursery and Sick-room Inodorous Charcoal Commode," which appears to be specially adapted for fever cases, and also samples of sewage-water from Bradford, illustrative of the charcoal purifying process. The great advances made of late years in the construction of public urinals is well seen in the handsome structures erected in this part of the Exhibition by Messrs. Jennings, of Lambeth, and Stidder and Co., of Southwark-bridge-road. Among the plans for utilising and disposing of sewage we noticed those of the Universal Charcoal and Sewage Company, Manchester, and the General Sewage and Manure Company as in operation at Coventry. The latter Company also exhibit the patent sewage extractor invented by Mr. Baldwin Latham. In the grounds adjoining the west wing of the Exhibition, the Phosphate Sewage, the Carbon Fertilising, and Scott's Sewage Companies will demonstrate their several processes for dealing with sewage. This department of the Exhibition will, there is no doubt, attract a good deal of attention, and we trust that the result will be the settlement of the much-vexed question as to the disposal of the sewage of our great towns.

THE ADDRESS AND TESTIMONIAL TO DR. MURCHISON WITH REGARD TO THE TYPHOID FEVER FROM MILK.

In consequence of the death of Dr. John Murray, there has been unavoidable delay in presenting this address. It is, however, now decided to present it on Saturday, April 18, at Dr. Murchison's house, at 3 p.m., when Sir Thomas Watson, Bart., will act as spokesman. Saturday, the 11th inst., will be the last day for receiving subscriptions to the address, and contributions to the testimonial fund, either of which should be sent to Mr. W. D. Christie, C.B., 32, Dorset-square, N.W.

THE DUBLIN CORPORATION WATERWORKS.—THE RECENT LOCAL GOVERNMENT BOARD INQUIRY.

The decision of the Local Government Board for Ireland in this matter, of which a full account was given in our Dublin correspondent's letter of March 3 (page 276), has just been made public. In an official letter, the Secretary of the Board writes, *inter alia*, as follows:—

"Upon a careful consideration of the evidence, the Board have arrived at the conclusion that no case has been shown calling for their interference under the Sanitary Act, and it is only under that Act that any powers in reference to such matters are vested in them."

The Board, however, recommend the following "terms of accommodation" to be carried out between the contending parties—namely, the Waterworks Committee of the Corpora-

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tion of Dublin and the Board of Guardians of the Rathdown Poor-law Union,—both acting voluntarily in the matter:—

"1. The drain already made by the Corporation within their boundary to be continued as the means of carrying the sewage of the town into the river below the Vartry works.

"2. The sewerage of the town to be effected in a way to be agreed on between the Corporation and the Board of Guardians, so as to provide efficiently for the sanitary requirements of the inhabitants, and to be finally conducted into the drain already made by the Corporation.

"3. In consideration of the town being effectually sewered, and the inhabitants benefited by runs of pure instead of polluted water through the town, the two electoral divisions in which the town is situate are to be charged with such a proportion of the expenditure as may be determined on arbitration, and the Corporation to pay the residue."

The decision thus made will probably satisfy one of the three bodies concerned—we mean the Local Government Board for Ireland. It would be strange if Sir John Gray and the Water-works Committee regarded such a *fiasco* as satisfactory.

EXPENSES OF FOOD ANALYSES.

Some discussion occurred on Tuesday at the meeting of the Surrey magistrates, upon the expense incurred to the county in carrying out the provisions of the Adulteration Act. It appeared that 728 samples of food had been purchased at the public expense for analysis, and only ninety-four convictions had resulted. The expenses had been £400, of which £366 10s. had been paid to the analyst. The articles consisted chiefly of cocoa, mustard, and green tea. It was considered there should be less expense incurred in carrying out the Act, especially when the benefit obtained was so small.

CONVICTION OF AN UNQUALIFIED PRACTITIONER.

At the Central Criminal Court, on Wednesday last, a "medical student" was tried and convicted of the manslaughter of Margaret Buckley. It appeared that the prisoner attended the deceased in her confinement, but finding that it was a case of some difficulty, went away suddenly, and never returned. A medical practitioner was subsequently called in, but found the woman dying, and she expired an hour or two later, the want of proper skill on the part of the accoucheur in the first instance mainly causing her death. The prisoner was sentenced to twelve months' imprisonment with hard labour.

HEALTH OF THE PUNJAUB.

The Sanitary Commissioner reports that, during the week ending February 7 last, the health of the province generally, as well as that of the large towns, continued good. The total deaths from small-pox had risen from 219 in the previous week to 258. The deaths from this disease in Gurgáon had increased from nine in the previous week to thirty-seven. One death was registered under the head of cholera at Kartárpur in the Jálandhar district.

Breathing in Rarefied Air.—M. Paul Bert, in a communication to the Académie des Sciences, describes some additional experiments which he has made upon himself, with the object of appreciating and combating the physiological effects of a diminution of atmospheric pressure. He placed himself within a receptacle in which the diminution of pressure was carried at first to forty-two, and then to twenty-five centimetres, this last being equivalent to an altitude of 8340 metres. He had provided himself with a mixture of atmospheric air and oxygen, the latter being in the proportion of 60 per cent. By breathing this, he found himself enabled to resist all the ill-effects that would have been produced by the diminished pressure. In former experiments he had employed pure oxygen, but he finds the above mixture succeeds much better. These experiments will prove useful to aëronauts, who will now be aware of what they have to do if they wish to ascend far higher than has yet been attempted. Physiology thus comes in aid of physics.—*L'Institut*, April 1.

THE SICK AND WOUNDED FROM THE GOLD COAST.

Malarial Poisoning—Indian and African Malaria Compared—Freaks of Malaria—Fever Symptoms—Brain Symptoms in Fever—Warburg's Tincture in Malarial Poisoning—Ashanter Missiles—Wounds Seen—Condition of the 42nd.

Whilst the sick and wounded in the *Victor Emmanuel* are slowly approaching our shores, that ship having the most serious cases on board, we have had, through the kindness of the authorities, an opportunity of inspecting those who have already found their way home and are now inmates of Netley and Haslar Hospitals. These do not by any means represent the number of invalids who have passed through either institution, for Netley is the chief military hospital in the country to which all men unfit to serve with their respective corps are sent, either preparatory to being sent back to the ranks or invalided out of the service. Haslar, though the largest naval hospital in the kingdom, hardly occupies a similar position, but still is one of very great importance, and through it also have passed many men belonging to the navy who have been sent home sick from the Gold Coast. The great majority of the cases seen were instances of malarious fever, many of them comparatively slight, so that the men were practically convalescent when they arrived, and were able at once to go on duty or to go home to see their friends. Some, however, who were thus allowed to depart were subsequently obliged to return from a relapse of their disease; and not unfrequently the malady, which was in the first instance remittent, assumed in the relapse a distinctly intermittent character.

In dealing with such cases, general impressions are perhaps quite as valuable, if not more so, than are cases detailed in full. These impressions, if founded on a fair amount of observation and conversation with those skilled in the details of the matter, have a specific value as, so to speak, the outcome of the experience of many, and it is this which we desire to convey. To begin with Netley, where one has an opportunity of comparing the results of the malaria on the Gold Coast with those of the most malarious districts in India, as seen in soldiers invalided for malarious disease from both regions: it seemed to us that the results of the African malaria were more severe than those of the Indian form of the malady, but then the long sea-voyage in fairly warm climates, which has such a revivifying effect, had to be taken into consideration in the Indian cases. The first thing that strikes the observer, with regard to the subject of malarial poisoning, is the intense anæmia and debility produced by a comparatively short febrile attack. Some of the men we saw were blanched to the uttermost (their tongues, gums, and lips quite white), yet they complained of nothing save weakness—in short, said they were quite well.

Malaria itself is a curious thing; the nature of it no man can tell, and its workings are as little capable of being reduced to rule as are its effects. How it is that of several men, subjected apparently to exactly similar circumstances, one should be seized and another left, is hard to say; but of this we have some analogy in our English fevers; but why one man, who apparently had been not at all exposed to its influence, should be seized with fever, and others who had lived in swamps all the time they were on the Coast should escape, is not easy to make out. One man we saw, belonging to the Welsh Fusiliers, who said he had never been ashore, yet he was suffering from fever. Another curious thing to be remarked was that several of the men had been all the way to Coomassie, been perfectly well during the whole expedition, till close upon Cape Coast Castle on their return, and there broke down of fever. In other instances, again, the men had left the Coast perfectly well, and fallen ill of fever on the voyage home. One man distinctly told the onset of his illness. He left Madeira in fairly warm weather, and in a few hours sailed into a cold region; then the attack of fever commenced. This is no isolated instance, but has been noted again and again, and furnishes some grounds for belief that in certain ways it would have been better to direct these regiments to some warm station before bringing them home to England. On the other hand, the prompt return from the Gold Coast has undoubtedly saved many valuable lives.

The malarial poison has in this expedition almost inv-

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given rise to either remittent or intermittent fever or to dysentery —sometimes to more than one of these. Thus it has been no uncommon thing for a soldier or sailor to be sent to hospital for remittent—if such a name could be given to the malady,—and after a time to suffer either from intermittent or dysentery. One good example of the latter sequence we saw at Netley, where a man had been ill of fever ashore, but was fairly well when he embarked, yet after being some time at sea severe dysentery developed itself, of which the man was ill at Netley. We have said above that sometimes the malady could hardly be called remittent; it seemed to the sensations of the fever-stricken patient to be continued. It is, indeed, to these sensations we have as yet mainly to trust; for we fear we have hardly arrived at such a pitch of scientific accuracy as to take temperatures regularly while on a campaign. At all events, if such temperatures have been taken they have not yet come to hand, and the materials for a full medical history of the expedition are not yet available. No doubt the thermometer would have recorded some degree of diminution in the morning temperature; but to the feelings of the sick man there was none. This in a certain way indicates the virulence in the type of the malady. Ordinarily the fever lasted about five days, sometimes eight, and in some others fourteen days; but even the shortest period was enough to blanch and debilitate the strongest men.

The onset of the disease was generally marked by a severe chill or rigor, but not always. In some cases vomiting was severe and persistent, but not in all. Some complained of pains in the back and loins, but all had headache of a most distressing kind, and often lasting long—even weeks or months—after all other symptoms had passed away. Most frequently the pain was situated in the forehead, sometimes at the back of the head, and in others still over the top and sides of the head, especially if the man had been exposed to the sun on sentry duty just before falling ill. The pain was agonising, and described by some as if the top of the head was being blown off. The bowels were, as a rule, constipated.

Most of the fatal cases ended with brain symptoms, which in many came on in the most insidious fashion, sometimes with very little sign of fever. Sometimes these symptoms would take the form of excitement; delusions would arise, sometimes ending in suicide, but in the end the symptoms were those of coma, and after death there was plentiful effusion into the cranial cavity. Fortunately, such cases have not been very numerous, and in a good number of instances judicious treatment, especially by the application of cold to the head and blisters to the nape of the neck, has sufficed to bring about recovery after unmistakable brain symptoms have appeared. Hepatic and splenic symptoms have not been very marked, though a minor degree of congestion of both organs has probably been present in all or nearly all.

The treatment adopted in most of the cases has been the ordinary remedy, quinine in full (*i.e.*, fifteen- to twenty-grain) doses. At Netley, however, as well as on the Coast, Warburg's tincture is largely used, and with great advantage. The dose is half a bottleful. This secret remedy is one of very great value, and it may be questioned whether it would not be cheaper for Government to purchase the secret than to continue buying it at the heavy price now paid for it, inasmuch as it is now very largely used in all malarious regions, military surgeons in this following the teaching of Dr. Maclean. When the fever has left, and only debility and anæmia remain behind, citrate of iron and quinine in average doses are ordinarily prescribed.

As regards wounds, the only one in Netley Hospital who had suffered in this way was a sergeant in the Rifles, who was wounded before Coomassie. Some slugs hit him on the arm, and one of them penetrated just below the skin, leaving a slight wound which was perfectly healed when we saw him. The missiles used by the Ashantees, as we are informed by Dr. Troup of the 42nd, one of the medical officers engaged in the expedition, were of various kinds. First came a heavy ball fired from a large kind of blunderbuss, which fortunately does not seem to have been too abundant with the enemy; next came the ordinary missiles used by them, consisting for the most part of pieces of rod lead, not quite the thickness of the little finger, chopped into slugs. Instead of these were sometimes used pieces of brass rod, similar to that used for stair-carpets, chopped up in like manner; and lastly were pieces of ironstone, mostly tending to a dice-like shape, but rather smaller, and inflicting dangerous wounds. One of the slugs we saw, which had been removed from the leg of a sergeant of Marines in Haslar Hospital, was as large as a small rifle-bullet, and many of the men who were hit imagined themselves to be wounded by rifle-bullets. Those most seriously wounded have not yet arrived in this country; they are coming home in the *Victor Emmanuel*. Of those we saw, the worst was a sailor in Haslar Hospital, who had received a slug in the neck, which had not been removed. From the orifice made by it, pus was welling at the time of our visit, and there was some suspicion that it was making its way downwards towards the lung. One other man, also, had a slug in him; it had penetrated the fleshy part of the thigh just below the buttock, and had not been removed; the wound was, however, skinned over.

We had an opportunity of seeing the 42nd Regiment paraded. Everyone who knows the regiment knows of what a fine sturdy set of men it is mainly composed; but many a one of them bore the marks of the prostrating malaria in the anæmic and unhealthy pallor they presented. This condition of malarial poisoning was still further manifested by the fact that the regiment had fifty-one sick men in hospital, most of them with slight attacks of fever, either brought on by the cold in this country, or recrudescent paroxysms produced in like fashion. The only wounded man was the happy winner of the Victoria Cross, Sergeant McGaw, who had had the proximal phalanx of his forefinger smashed by a slug, but whose wound was nearly healed, leaving, however, we fear, a somewhat useless member.

Many other interesting things we saw and heard, but these we must defer for the present.

LETTERS FROM MADRAS.

No. VIII.

DISTRIBUTION OF SKIN DISEASE BY NERVOUS INFLUENCE—DYSENTERY AND ITS TREATMENT BY IPECACUANHA—SUBSTITUTE FOR CALOMEL.

LEPROSY is a tempting subject to one who has never seen it before;—the disease so profoundly tragical: a slow going down into the tomb—not, as is often the case with consumption, with a touch of romance, a gentle decay, attended with all human interest and sympathy to smooth the way to the grave, but repulsive, loathsome, rendering the victim an object horrible to the senses, and driving him out like a mangy dog to hide himself and die alone. I revert to the subject here partly to apologise for the extremely obscure paper I sent you some weeks ago on the relation of the leprosy of Moses to the modern disease—an obscurity which came in the vain task of attempting to say much in a few words; and partly because I want to notice one most interesting case of it which I have seen in the General Hospital.

The patient was a gentleman in the private wards, twenty-five years of age, of pure European blood, and decidedly fair-haired and fair-skinned, of Anglian aspect; born in India, but resident in the hills, where he was engaged in coffee-planting. For the last five years he had been slowly becoming leprous. The first thing to attract attention on examining him was the slight but decided birdclaw-like attitude of both hands—the extensor and flexor muscles of the forearm seeming each to be in a state of tension, so that the whole hand was drawn backwards at the wrist by the extensors, whilst the fingers were bent down towards the palm, and could not be extended by the patient to the straight position. The median and ulnar nerves were enlarged and cordy, and branches could be felt down the flexor side of the forearm in a similar condition. There was entire loss of sensation in both forearms from the elbows to the wrist, and in the corresponding part of the leg; and in the right hand, except in a spot on the flexor side of the wrist. The patient could not feel sufficiently to button his shirt; the backs of the anæsthetic fingers were "glossy," as was described by Paget as a character of paralysed limbs. Some loss of sensation also in the tips of the ears, and over the spine of the right scapula; very slight, if any, loss of hair from the outer end of the eyebrows. The reason of his being in hospital was a very severe attack of acute eczema. Six years before he had had a discharge from the urethra, which he was told arose from a concealed chancre, and he had been since liable to cutaneous eruptions, which he was told were syphilitic. The eczema was judged to be

syphilitic by the medical officers of the hospital. The points of interest are these two:—First, the co-existence of a syphilitic taint with leprosy; and, secondly, the effect of the condition of the nerves on the distribution of the eczema,—for this was limited accurately to those portions of the arms and legs which were anæsthetic, and was found nowhere else. An importation of lepers into English hospitals, for clinical purposes, would be welcomed by Professor Laycock and others who desire to teach the localisation of disease by the nerves.

Dysentery is a very common(a) malady here amongst natives and Europeans, and seems to me (as a looker-on) to take here, partly, the place of bronchitis in colder climates. Anyhow, errors in diet and the influence of a low temperature are effective causes, especially if they often act in combination. The soldier who gets drunk and lies asleep in the open air, exposed to the night-dews; the gentleman who eats fruit at a late dinner, and sleeps in a cold current of air; and the native who sleeps in his "pyal" or verandah, thinly covered with a strip of calico, may each suffer from dysentery. So may the man who goes suddenly out of the heated plains into a colder climate, and who neglects to put on warm clothing. The great remedy used against it by Dr. George Smith, at the General Hospital, was *ipecacuanha;* and the details of his practice were very instructive to me. If I may use an almost obsolete phraseology, the drug was so used as to be a revulsive, evacuant, antispasmodic, sedative, and febrifuge. Let us suppose a patient admitted; feverish, with griping pains, and frequent attempts at stool, which give issue to merely a little mucus, perhaps bloody. The first thing done usually is to administer a dose of twenty or twenty-five minims of laudanum, to check the immediate urgency of the symptoms and any subsequent tendency to vomit. Then, after an hour, a full dose of ipecacuanha—say twenty-five grains—is administered in the form of bolus or pills. In order to avoid vomiting, the patient is made to lie quite still, in the horizontal posture, and is forbidden to drink for a time. If he vomit the first dose, it does not matter; the "revulsion" and "evacuation" do good rather than harm. After six to twelve hours the dose is repeated, and it is soon found that the stomach tolerates it; and a large dose is less likely to create vomiting than a small one. Meanwhile the patient is kept quiet, and fed on milk. The dose is repeated at intervals, according to the urgency of the case, till at last there come away free, copious stools, of a peculiar character—"ipecacuanha stools" they call them; whether because produced by the drug, or because they are of a light brown, like ipecacuanha mixed with water, I cannot say. This evacuation is at once a cause and symptom of relief. The mucous membrane of the upper half of the alimentary canal is disgorged, its contents are discharged, and with this the spasm and irritation of the lower half, with the straining, and scanty and slimy stools, are relieved. Then the remedy must be repeated in smaller doses, at night and morning, or at night only, till the symptoms vanish, and the patient is gradually restored to his ordinary food and work.

This treatment is adapted for quite recent cases in robust persons; but for cases of longer duration or less favourable it will require to be modified at the practitioner's discretion. The ipecacuanha (as I learned from Dr. Oswald and Dr. Young, of Bangalore) may also be used as a local application. Twenty grains rubbed up in water may be injected into the rectum, where it will act locally as a soothing remedy, and produce its constitutional effects as well.

Just in the same way, ipecacuanha is used by Dr. George Smith for spasmodic asthma, and for acute bronchitis with spasm, which seems to be not uncommon here. It will be seen that this drug takes the place which calomel, with or without opium, took in the practice of the generation now passing by, and that it does what calomel was believed to do—*i.e.*, evacuate foul secretions, relax spasm, "equalise the circulation," promote perspiration, and so relieve local irritation and congestion. English practitioners are often enough called in the early night to children with "croup"—that is to say, a child has been exposed to one or both of the hostile elements, cold wind and indigestible food; it wakes out of its first sleep, hot and restless, and coughing with the peculiar sonorous inspiration, whence the name "croup." In such a case it is the practice to empty the stomach first with a full dose of ipecacuanha or antimony, after which the symptoms often yield; but they may go on, and become a truly inflammatory *cynanche trachealis* (neither *diphtheria* nor *laryngismus stridulus*). Perhaps ipecacuanha, pushed as above described, would be as efficient as the leeches, antimony, and opium which are the practitioner's trusty weapons at home.

(To be continued.)

(a) Forty-nine Europeans, of whom four died, and twenty-one natives, of whom three died, were admitted in 1872.

ENLARGEMENT OF THE EDINBURGH UNIVERSITY.

(From a Correspondent.)

On Monday, the 6th inst., an influential meeting was held in Edinburgh for the purpose of promoting a movement for extending the University buildings; the Lord Provost presided. The Duke of Buccleuch moved the first resolution, viz.—"That while the University of Edinburgh is almost the largest university, and contains by far the largest and most important medical school in the United Kingdom, the present state of its buildings is such as to impede the proper discharge of its functions, especially in respect of imparting scientific instruction in accordance with the modern system, and also in respect of the convenient teaching of all its classes; and that it is for the interest of science and of the higher education of the country generally that this state of things should not be allowed to continue." The Right Hon. Lyon Playfair, M.P., seconded the motion. Three other resolutions to the same effect were also put and carried unanimously. The growing popularity of the Edinburgh University as a medical school, and the consequent increase in the number of matriculated students, annually makes it most desirable that the class-rooms and lecture-theatres should be enlarged, and the area of the building expanded. Some ground at the back of the University, close to the new Infirmary, is available for this purpose, and has recently been purchased by the authorities. The Town Council have also been carrying out some extensive improvements in the neighbourhood, so that the University, which was till lately surrounded on all sides by houses and shops, will be much more open in future. The site for the proposed wing being now vacant, has been purchased at a reasonable price. Plans and estimates of the contemplated buildings have been made, for which £100,000 is required. Half this amount has been already subscribed, and an appeal to the public is to be made for the remainder. It is expected that Government will make a grant as soon as the building has been commenced. The following is a summary of the proposals in view:—1. To purchase the sites of Park-place and Teviot-row. (This has been already effected at a cost of about £33,000.) 2. To erect in the immediate vicinity of the New Royal Infirmary complete class-rooms, theatres, laboratories, and museums, with the latest scientific improvements, for the medical faculty of the University of Edinburgh. 3. To reorganise the existing class-rooms of the College, and to improve them in direct adaptation to the wants of the several professors in the faculties of arts, law, and theology. 4. To provide increased and more convenient accommodation for the University library. 5. To erect a University hall for the conferring of degrees, the holding of examinations, and for all public academical ceremonials. 6. To improve to some extent the north front of the present College building. We cannot too strongly urge upon the Senatus Academicus the advantage of erecting, at the same time, College chambers for the students. The miserable condition of the lodgings in which some of them take up their quarters during the academic session defies description. The hardships endured by many makes it most desirable that the advantages of the collegiate system of our English universities should be, as far as practicable, carried out at our Scotch universities. We have before us the plans of a large building which it was proposed to erect on George IV. Bridge, north-west of the University, as residential chambers, with dining-hall, library, etc., for the students. For some reason this building was not erected, probably for want of funds. The Senatus, some years ago, set apart the Old Natural History Museum as a refectory, which has proved a real benefit to the large class of university men who object to take their meals in a tavern parlour. We understand that a general meeting of the Edinburgh University Club has been summoned for Monday, the 13th inst., to meet at No. 11, Grafton-street, Piccadilly, at 5 p.m., to consider what action should be taken by the members of the Club with reference to the proposed extension of the University.

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ABSTRACT OF

THE GOULSTONIAN LECTURES.

DELIVERED AT THE ROYAL COLLEGE OF PHYSICIANS.

By JOSEPH F. PAYNE, M.B. Oxon., F.R.C.P.,
Assistant-Physician to St. Thomas's Hospital.

ON THE ORIGIN AND RELATIONS OF NEW GROWTHS.

Lecture III.

The word "cancer," like all terms of science, has been used in very different senses at different times; but these are only important so far as it has been distinguished from other tumours. Abernethy described cancer as a variety of sarcoma, but his description is drawn almost entirely from scirrhus. The characters he gives are wholly physiological or derived from growth, not at all anatomical, though he endeavoured to form an anatomical classification of simple tumours. Sir James Paget adopted most of the characters of Abernethy, and added another—namely, that of structure, which seems, logically, to belong to a different category. Müller's definition was not very different from that of Abernethy and Paget, except that he introduced the ill-omened word "constitutional." The physiological characters of cancer thus distinguished are of the highest importance; by themselves, they constitute a definition possessing a very considerable degree of accuracy and quite logically consistent. They are not, strictly speaking, the signs of malignancy; rather, they *are* malignancy. The difficulties which occur in the practical application of these rules are chiefly two—viz., that malignant tumours thus defined pass by imperceptible gradations into others which are perfectly innocent; and that even a tumour which may in the end become highly malignant is not so at first. Hence the test is not always applicable. This often occurs in the case of tumours affecting some specially vital organ, such as an orifice of the stomach or the trachea, when death is produced before time allows of any development of the so-called malignant properties.

Hence has arisen the search for some anatomical test, always applicable, which shall serve as a constant indication of malignant properties. This search has been only partially successful. No one type of structure is either peculiar to, or characteristic of, malignant growth. We cannot draw a direct inference from structure to malignant properties, still less can we draw any positive conclusion as to the structure of a tumour merely from the fact that it has manifested malignant properties, any more than from the fact that an animal is predacious or carnivorous we can refer it to any one order, since predacious or carnivorous species may occur in several orders. The two definitions derived from structure and from physiological characters respectively will not, then, coincide, neither can they be precisely contradictory; they are not comparable, or do not lie in the same place. From a failure to see this fact, have arisen the misunderstandings between the practical physician or surgeon and the histologist.

The only way out of the difficulty is to follow the example of the naturalists, and classify objects according to their structural characters; their name in such a classification will then give the key to the recorded experience about their properties. Whether the term cancer should be applied to an anatomical group—that is, to a special type of structure,—or to a class of tumours growing in a particular way—that is, to a physiological type,—is a question chiefly of convenience; but the term "malignant tumour" seems adequate for the latter. Cancer, or its Greek equivalent carcinoma, will then be an anatomical, not a clinical term. Of anatomical definitions of cancers, that of Virchow remains the most complete—viz., a tumour containing epithelial or epitheloid cells enclosed in an alveolar stroma; other peculiarities in the arrangement of the cells being also a part of the definition. It is difficult to define precisely what are epithelial cells, but the essential thing is the existence of two kinds of structural elements, and a certain contrast between them. Ranvier, laying stress upon one of these elements—the stroma—calls cancer a species of fibroma. Waldeyer, on the other hand, attaching more importance to the cells, regards it as an essentially epithelial growth, extending into the connective tissue. The stroma and cells are, on this view, of distinct origin, and take their rise, even on principles explained in the former lecture, from different embryonic

It is at present a point of much controversy whether this supposed duality of origin exists, or whether all the elements, as Virchow supposes, arise from connective tissue. On the one side, it is urged that cancers in this sense arise only in parts where there are epithelial elements, and that continuous outgrowth may be traced from there into the tumour, while no transitional forms are met with. On the other hand, it is urged that there are actually transitional forms between the cells of cancer and connective-tissue cells, and that the latter are only stimulated by some infection communicated from neighbouring parts to take on a particular kind of growth.

The case appears to be rather different with respect to epithelioma and the more deeply seated cancers. In the former, there seems to be much reason to believe that all the epithelial portion of the tumour is an outgrowth from pre-existing epithelium, leaving out of account for the time the extremely rare cases of supposed epithelioma originating elsewhere than on epithelial surfaces.

Waldeyer and other pathologists extend the same principle to other forms of cancer, supposing that these originate in glands, and bear the same relation to them as epithelioma to the epithelium. At all events, it is contended they never originate except from epithelium of some kind; and accordingly the name of cancer is refused to tumours springing from bone, connective tissue, lymphatics, or other non-epithelial parts. The details of this question admit of much discussion; but it may be said generally that the mode of origin is not so clearly demonstrated in the case of other cancers as in epithelioma. Moreover, instances may be quoted of tumours with the structure of cancer growing from non-epithelial tissues; and the difficulty is not wholly surmounted by calling such tumours alveolar sarcoma. The conclusion is, that the exclusively epithelial origin of any special type of structure called cancer is not proved. To take the origin as the basis of classification, and to call only such tumours cancer as arise in or from epithelial parts, is of course to shift the basis of nomenclature and to destroy, in effect, the anatomical definition of cancer.

Malignancy is not a property of cancer only, but belongs to different classes of tumours in different degrees.

With respect to the occurrence of cancers in several parts of the body, one of these tumours is believed to be always primary, the other secondary. Secondary growths are excited by some material substance carried to the new site from the primary cancer. Whether this substance consists of cells or of some seminal principal (*seminium* of Virchow) which stimulates the tissue-elements to new growth, is a subject of controversy. It may be said that the transport of cells certainly occurs in some cases, while the *seminium* is a perfectly hypothetical substance. Anyhow, there seems reason to believe that the tissue-elements of the new site participate in the new growth, which is not formed (as Waldeyer asserts) wholly after the manner of a graft by growth of the transplanted elements.

These considerations suggest an answer to the question often proposed, whether cancer is local or constitutional; for, if this be the true history of cancer, then it is clearly, in its origin, local; whether or no, there are characters superadded to it which make it constitutional in any one of the many senses in which that word has been used. This is the moral of the whole story, and the story must have been badly told if it has not suggested it.

POOR-LAW MEDICAL OFFICERS' ASSOCIATION.

On Wednesday the annual meeting of this Association was held. There was a good attendance of poor-law medical officers.

The Chairman, Dr. Lush, M.P., in referring to the grievances of poor-law medical officers, said the occasion was remarkable, as they might be entering on a new era in respect to sanitary matters. They had a new Parliament and a new Government, and they had a right to assume, from some expressions which had fallen from the Premier two years since, that he considered sanitary progress to be the mission of the Government, of which he was now the head. Considering that nearly the whole of Mr. Disraeli's Ministers, however, opposed the Birmingham Sewage Bill, he was afraid the medical profession had not much more to expect from the present than from the late Government. He feared the question of sanitary reform was still *in nubibus*. It was a bad sign that the

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present Government had not considered it necessary that the President of the Local Government Board should be a member of the Cabinet. The speaker disapproved of boards of guardians being appointed as sanitary authorities, for they were the least fitted of all public bodies to take that responsibility. He urged the medical profession to be united in their demands, and expressed his regret that in the late general election every English medical member of the House of Commons but himself had been unseated.

Dr. Rogers, President of the Council of the Association, read a paper criticising the working of the Public Health Act, and pointing out the necessity for a more comprehensive scheme. He then urged that there should be an improvement in the status and an increase in the remuneration of poor-law medical officers, and cited the experience of the working of the Irish medical relief system since 1845, to prove that such a reform in England would be followed by diminished general poor-relief expenditure. He also drew attention to the imperfect character and partial working of the Superannuation Act, and recommended the Association to endeavour to secure a compulsory instead of a permissive allowance, and to ask that, as their services were in every way national in their results, the nation at large should be called upon to contribute towards their payment. In conclusion, he submitted a resolution requesting Parliament to introduce a measure in the present session, or as soon after as may be practicable, having for its object the reform of the parish medical relief system by the establishment of district dispensaries.

Dr. Brady, M.P., seconded the resolution, and it was carried unanimously.

A second resolution was adopted, expressing astonishment and regret that the Department at Whitehall had omitted to provide for the remuneration of the great additional labour on the part of the medical officers involved in the preparation of the returns of infectious disease, etc., and trusting that independent members of the House of Commons would call the attention of the Legislature to "this last instance of systematic disregard of fair dealing on the part of the Department towards an already overworked and underpaid body of professional men."

FROM ABROAD.

Pruritus Hiemalis.

Under this name, Dr. Duhring, Clinical Lecturer on Diseases of the Skin in the University of Pennsylvania, is desirous of introducing to the notice of the profession (*Philadelphia Med. Times*, January 10) a disease which, as far as he can ascertain, has never been separately described by any author. Still, in his own experience it is by no means of unfrequent occurrence; and although in some cases it is a trivial affection which gets well of itself, in others it causes the greatest discomfort and distress. In Philadelphia it is commonly met with in the latter part of October, and continues until the cold weather is thoroughly established, or even through the winter. In some cases it lasts only a few days or weeks, and then disappears, while in others it persists for several months or longer—never continuing, however, after the cold weather has passed away,—remaining absent at least until the ensuing autumn cold. It is not met with much before the period of puberty, after which all ages and both sexes seem alike susceptible to it. Although it may occur in any part of the body, it is especially upon the lower extremities that it manifests itself typically, the non-hairy parts of the limbs being oftener affected, and the calves of the legs being especially favourite localities. Both extremities are symmetrically attacked. The affection comes on with an itching, tingling, and burning sensation, as though the parts were clothed with new flannel or woollen fabric, which chafed the skin. This may vary greatly in intensity, but is usually aggravated towards night—when, indeed, in the milder forms, it only gives annoyance. As the person undresses the itching becomes severe, and he is unable often to resist severe scratching, which substitutes a more tolerable burning. When the case is at all severe sleep is greatly interfered with, but by the morning the pruritus has usually quite subsided, and does not recur until the evening, when all the symptoms are exactly repeated. In this way it continues day after day, with but slight intermission, until, at the end of an indefinite period, it gradually vanishes. In the autumn it usually recurs and runs a similar course, and may do so year after year for several seasons, or even for a lifetime.

There is no *primary eruption* to be detected upon the most minute examination of the skin, which at most is somewhat dry. All that is observed at the end of several days, such as the roughened and inflamed condition of the skin, the inflamed state of the follicles, etc., are all due to the scratching and irritation consequent on the pruritus, and must on no account be confounded with it.

With regard to the etiology of this affection, it is evidently connected with atmospheric changes, appearing as it does in Philadelphia with the first ice, and continuing until the spring. The author has heard of it in more northern latitudes, but never in more southern ones; and not only is it unmentioned by the writers of England, France, and Germany, but the author has never met with a case in any of the clinics of these countries. No derangement of the health occurs in the subjects of this disease; and it is found alike among those living in comfort and the impoverished. It occurs in the black race, and does not depend upon the neglect of cleanliness, the regular use of the bath being no protection against it. As the result of an examination made by the author in the hospital and almshouse of 412 poor persons, twenty-two cases were detected, and he believes that the disease is just as frequent among the wealthier classes. Although flannel and woollen garments have nothing to do with the production of the disease, they always much aggravate it when it appears, so that patients are quite unable to bear them.

The two diseases with which this affection may be confounded are lichen pilaris and the true prurigo of Hebra. Lichen pilaris consists in an accumulation of epidermis and sebaceous matter around the openings of the hair-follicles—this being the primary disease, which may or may not be accompanied by itching. It is usually seen in those who neglect cleanliness, and is mostly found at the outer part of the thigh, or is more marked there. It is in general speedily relieved by the free use of hot baths and soap, which remove the obstruction to the follicles. There are thus many dissimilarities, but in many instances the secondary stage of pruritus hiemalis has been associated with lichen pilaris. With respect to true prurigo, there is in it the formation of distinct plastic papules. Once recognised as a pruritus, there ought to be but little danger of confounding this with any other form of that affection.

In treating the disease the author has not found that baths, whether hot or cold, exert much permanent influence over it—hot water, however, more often affording some relief than cold. The cold douche to the parts frequently gives temporary ease, allowing the patient to go to sleep; and a warm bath taken before going to bed will often insure more comfort. An alkaline bath affords more permanent relief than any other treatment, and may be prepared by adding four ounces of carbonate of soda, the patient remaining in the bath for twenty minutes, this being sufficiently warm for him not to feel at all chilly. The parts should be slowly dried by patting with a soft dry towel, no rubbing or friction being employed, as, though pleasant at the time, this aggravates the irritation afterwards. The bath should be taken just before bedtime, and the patient should sleep as coolly as possible upon a hard bed or mattress, with only just enough covering to prevent chilliness. The sheets should be soft muslin or linen. During the day, linen, muslin, or Canton flannel underclothing should be worn, all woolly garments being discarded. Heated rooms should be avoided, and relief sought by a walk in the cool air. Dr. Duhring has nothing favourable to report concerning the various forms of internal treatment which he has tried.

Chloral.

Dr. Pollak terminated a paper read before the Salzburg Medical Society (*Wiener Med. Woch.*, February 28) with the following conclusions:—1. Chloral is a very good hypnotic, and in all those diseases which consist in abnormal cerebral excitement, or are combined with this, it by its soporific influence constitutes a good calming medicine. 2. It relieves pain by the fact of inducing sleep, but will not relieve pain without causing sleep. In very intense pain it exerts but little hypnotic effect, and in such cases is advantageously combined with morphia. 3. As it induces relaxation of muscles, both voluntary and involuntary, it is an excellent means in the various forms of spasm. 4. In disease of the heart and lungs and of the digestive canal, chloral is without effect or unsuitable or eve-

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dangerous, and consequently is contraindicated, or should only be employed with caution. 5. It does not admit of being used as an anæsthetic during the execution of the great operations. 6. Its prolonged employment is not usually attended with any disagreeable effects, and if any occur they are not of any consequence. It especially does not induce congestion of the brain or disturbance of the digestive and nutritive processes. 7. It is in most of the diseases in which it is employed an excellent palliative, but on the disease itself it usually exerts no influence. Chloral is especially indicated in the cases in which morphia is indicated, and when the latter on account of some of its effects cannot be administered. It is contra-indicated in diseases of the heart and lungs and of the digestive canal. 8. Comparing chloral with morphia and chloroform, we may assert (1) that as a soporific agent its operation is more certain and less disagreeable than is that of morphia, which it will succeed in displacing as a hypnotic; (2) that it only relieves pain by inducing sleep, and fails to remove intense pain, so that as an anodyne it cannot supersede morphia; (3) and that as an anæsthetic it is far inferior to chloroform both in rapidity and intensity. 9. Although chloral has rightly obtained admission into the Materia Medica, it has not yet acquired its definitive place. Notwithstanding the numerous communications that have been made respecting it (the author is cognisant of the writings of 312 authors upon the subject), much more has yet to be worked out respecting its chemical, physiological, and therapeutical relationships before the "chloral question" can be said to be completely settled.

Thermometry of the Uterus.

At a meeting of the Vienna Medical Society (reported in the *Allgem. Zeitung* of March 10), Dr. Schlesinger delivered an address on "The Thermometry of the Uterus, and its Diagnostical Significacy." The question he wished to treat was, whether, by aid of the thermometer, we are enabled to diagnosticate those difficult cases wherein all other means fail us—viz., the early months of pregnancy. In favour of the possibility of doing so is the admission that the temperature of the fœtus in utero is higher than that of the mother, and that the greater warmth of the uterus than that of the vagina in pregnancy is derived from the contact of the fœtus. In illustration of this point he referred to the experiments of Bärensprung upon fowl's eggs, rabbits, dogs, and the human subject. He found that the development of the chick was accompanied by an increase of temperature of 0·3° C.; and that when the thermometer was in rabbits and dogs placed within the uterus, within the cavity of the pelvis, and within the cavity of the abdomen, the temperature in the pregnant animal attained its maximum within the cavity of the uterus. In six cases he found that the temperature of the human fœtus was higher than that of the mother, and communicated heat to the uterus. Schroeder found also, on introducing the thermometer into the uterus three or four days prior to parturition, that the temperature was higher there than in the vagina and axilla, and he agreed with Bärensprung that this higher temperature was derived from the fœtus—a view which was confirmed on finding that the temperature of the newborn infant was higher than that of the mother both during and after delivery. This conclusion was remarkably confirmed in a case in which the child died seventeen hours before birth, and there was only a difference of 0·02° C. between the temperatures of the uterine cavity and the axilla, whereas this had amounted during pregnancy to 0·9° C. In a protracted breech-presentation the first measurement furnished a temperature of 38·9° in the vagina, that of the fœtus being 39·4°; and two measurements towards the end of the labour gave 39·1° in the vagina and 39·65° for the child, and 38·8° in the vagina and 39·55° for the child. From these and other observations Schroeder deduced the following rule:—If the temperature of the pregnant uterus is higher than that of the vagina, and if such excess is derived from the warmth produced by the fœtus; and if with the death of the fœtus this source of caloric is dried up, and the uterus must impart it to the dead mass, we may infer that the death of the fœtus has taken place when the difference between the temperatures of the uterus and vagina entirely ceases, or exists only to a very slight extent.

More lately this proposition has been expanded by employing the thermometer as a means of diagnosing pregnancy during the early months when aid is so much required. Before any positive conclusion could be drawn, it became necessary, however, to ascertain whether there is any difference between the temperature of the uterus and the vagina in the non-pregnant condition. Dr. Schlesinger has made several investigations by means of a new thermometer which he has contrived, and has found a difference between the temperatures of the axilla and vagina of 0·21° C., and between those of the vagina and uterus of 0·16° C., so that there is a higher temperature of the uterus in non-pregnant as well as in pregnant women. In a comparison of the temperatures of the rectum, vagina, and uterus, the two latter exhibited a slightly higher temperature, that of the cavity of the uterus being also higher than that of the cervix. The general result of the investigation is that the uterine cavity, both in the pregnant and the non-pregnant conditions, possesses a higher temperature than the vagina, but the gravid uterus is of a higher temperature than the non-gravid, and the parturient uterus is of a higher temperature than the non-parturient.

REVIEWS.

Proceedings of the Dublin Obstetrical Society—Session 1872-73. *Fifth Clinical Report of the Rotunda Lying-in Hospital, for the Year ending November*, 1873.

Our Irish brethren continue, as heretofore, to do their obstetric work, and do it well. The volume of the Obstetrical Society's *Transactions* contains numerous interesting and well-written papers—those by Dr. Atthill "On Endometritis," by Dr. Madden "On the Constitutional Character and Treatment of Diseases of Women connected with Chronic Inflammation of the Uterus," by Dr. Kidd "On Treatment of Difficult Cases of Vesico-Vaginal Fistula," and by Dr. M'Clintock "On the Excessive Vomiting of Pregnancy," being especially good. Altogether the Society may be congratulated on a year's good work. The general arrangement of the volume and its compact form reflect credit upon both editor and publisher; and by the exclusion of unnecessary detail it is reduced in size and portability, without detriment to its general contents. Would that some of our London societies would take it as a model in this respect!

The "Report of the Rotunda Hospital" is, as usual, most carefully compiled, and the interesting facts connected with this important charity and its work placed in a convenient form for reference and comparison. The mortality from all causes seems high this year, being 32 out of 1191 patients delivered in the hospital, or 1 in 37¼; whereas in the previous year the deaths were 20 out of 1193 deliveries, or 1 in $59\frac{13}{20}$. Deducting in both cases what may be called deaths from accidental causes, we still have a considerable increase, the numbers standing then at 15 this year as against 6 last, due to zymotic diseases. Dr. Johnston lays stress, and we think most rightly, on the mental state as a predisposing cause in these cases, but, looking at the facts and figures fairly, we cannot by this means account for the increased mortality shown in this report.

The Obstetrical Journal, Vol. i. 1873-74.

The first volume of a new journal deserves a passing notice and welcome at our hands. Whether the statements in the prefatory note are fully borne out or not remains to be proved. There is no doubt that a large number of general practitioners are interested in obstetrics and its allied subjects; but whether the space allotted to these in the general medical periodicals is insufficient or not, or whether greater space would be given were there a greater amount of obstetric material, are quite open questions. We confess, for our own part, that we disapprove the separation of the three great divisions of medical science, and see no more need for a journal specially devoted to obstetrics than to one restricted to either medicine or surgery alone. However, be this as it may, we have here before us the accomplished fact of a year's work in the *Obstetrical Journal*, and it behoves us to see how far it supplies the deficiencies assumed to be existing. This handsome volume of 852 pages, admirably got up, and clearly printed, of a convenient and readable size, contains a certain number of original papers, of which the best are those by the editor, Dr. Aveling, on "Immediate Transfusion in England," and the "History of the Menstrual Decidua," both well done; also some antiquarian histories of British obstetrics; and two interesting but rather laboured papers—by Dr. Braxton Hicks on the "Clinical Pathology of Uterine Disease," and by Dr. Tilt on the "Prognosis of Uterine Inflammatory Diseases." The very clever series of papers by Dr. Finlayson, on the

dangers of dentition, though not very practical, are some of the best in the volume. Of the numerous papers and correspondence on the subject of perchloride of iron injection in post-partum hæmorrhage, it need only be said that the quality was very similar, although the quantity much greater, than what has appeared in the weekly journals on the same subject. Of the two remarkable papers by Mr. Lawson Tait, containing what we might almost call the marvellous in uterine diagnosis and treatment, we can only say that were his results from the use of the galvanic stem pessary only borne out by other careful observers, they would be some of the most extraordinary yet witnessed in this department of practice. But after reading them carefully, one cannot but feel that our old friend hysteria still exists to baffle and puzzle many of us! The reports of hospital practice are by far the weakest part of the present volume: of the eleven reports, no less than six are devoted to the Chelsea Hospital for Women, and five of them to the relation of Dr. Chambers's successes with the intra-uterine stem. These cases do not seem to have provoked much comment. The accounts of the meetings of the different societies have been well and carefully done; but as we have them in the annual volumes of transactions, we need not do more than mention them here. The short summaries of gynecic and obstetric matters are also well done.

We had intended to have said a few words on the orthography used and the abandonment of the diphthong, as we think it a very unjustifiable proceeding. The use of such words as "fetus," "fecal," and "hyperemia" we think far from pleasant to the eye, but we have already encroached too much on the space at our disposal to go into this matter. On the whole, we may say that the journal is well conducted and its matter well arranged, and that its editor has done his work well; but that the original matter is capable of great improvement, especially in a practical point of view, we think it our duty to remark. Possibly the editor's retort may be—"If the papers are bad, why don't you send better ones?" But this touches the original question as to the deficiency of space in the general medical periodicals, and we are inclined to think that this "deficiency of space difficulty" would be easily got over if there came a supply of really good matter demanding room for insertion.

REPORTS OF SOCIETIES.

ROYAL MEDICAL AND CHIRURGICAL SOCIETY.

TUESDAY, MARCH 24.

Dr. C. J. B. WILLIAMS, F.R.S., President, in the Chair.

MR. BRUDENELL CARTER read a paper "On an Improved Method of Abscission of the Anterior Portion of the Eyeball." After mentioning the conditions that call for abscission of the anterior portion of the eyeball, and the way in which the operation once practised was improved by Mr. Critchett, the author related a case in which Critchett's operation was followed by sympathetic ophthalmia and loss of sight. He attributes this result either to traction upon the ciliary nerves in the cicatrix, or to laceration of one of them by one of the needles used to transfix the eye. In order to set aside these dangers, and at the same time to obtain a stump well calculated to carry an artificial eye, he has devised a plan of operating which is described. It consists of uniting the tendons of the recti muscles by catgut sutures, and then of uniting the conjunctival wound over them, no sutures being passed though the ocular tunics themselves. A patient who had been operated upon in this manner was exhibited to the Society.

Mr. HIGGENS said the usual plan at Guy's Hospital was to cut out the anterior portion of the eyeball, and then bring the conjunctival edges together; and they found this a better plan.

Mr. BRUDENELL CARTER had had no experience of this, and did not think it would give so good a stump as that formed by the tendons, etc.

Dr. JAMES MACKAY CUNINGHAM read a paper "On Recent Experience of Cholera in India." After some introductory observations on the importance of the cholera question, especially at the present time, Dr. Cuningham proceeded to remark on the special opportunities afforded by India for the study of cholera, and the great value of the information to be obtained there. He then entered into an examination of the evidence derived from the history of the epidemic of 1872 in Northern India. Two great points had to be determined—first, the influence of human intercourse in spreading the disease; and, secondly, the practical measures to be adopted for protection. 1. The evidence as regards human intercourse was considered with reference to the geographical distribution of cholera in India; the great areas of prevalence and exemption; the experience of the same tract in different epidemics; the endemic area, the seasonal and periodic rise and fall of cholera within this area; and the singular immunity of certain places. Further, with reference to this question, Dr. Cuningham dwelt upon the detailed evidence afforded by the history of 100 outbreaks in 1872. There was an entire absence of all evidence of communication of the disease, and the previous considerations were fatal, Dr. Cuningham believed, to this doctrine. The epidemic was not propagated along highways of communication, and did not travel any quicker in these days of railways than it did in olden times. Singular evidence against the contagiousness of the disease was derived from the St. Peter's College outbreak, many cases having been sent thence into various localities, without in one single instance disseminating the disease. The experience of attendants on the sick was against all suggestion of contagion, a small proportion of those only being attacked, and there was an absence of all evidence of contagion in regard to those who were attacked. As to indirect contagion, the facts bearing on the water theory, as illustrated by the outbreak at Peshawur and Mecan Meer and other places, were wholly against its accuracy. Dr. Cuningham dwelt on the importance of local conditions in connexion with the singular localisation of the disease, as illustrated by the outbreaks at St. Peter's College, and amongst the troops at Kussoulie, in the camps at Mecan Meer, etc.; and he urged the necessity for studying these local conditions much more closely. The incidence of the outbreak as regards time among different sections of the community next received attention. 2. In considering the practical measures to be adopted to afford protection from cholera, the impossibility of carrying out an efficient quarantine was considered, and the great evils attending any attempt at it shown by the experience of Upper India on this point. The primary importance of sanitary improvements was next urged, and a strong opinion was expressed on the tendency of the contagion views to interfere with progress in this respect.

Dr. HARDIE said he had had some experience of cholera in Mauritius during two epidemics, and in both cases it had been imported into the island by the ships bringing over coolies from Calcutta. In a previous epidemic it was introduced in the same way, through the quarantine rules being broken, so that the cholera had each time entered by the only port of the island. He did not think India was a good place to experiment upon cholera. In the epidemics he had seen, if there was a cause of immunity he thought it was on the estates where the people were supplied with water from wells. He thought the water-streams were the great cause of its spread.

Sir WILLIAM GULL said he had gone over the whole story of cholera some years ago. He was interested to find in the paper that fresh statements added nothing to what Dr. Baly had already said. He thought it was to be regretted that the report of the Royal College of Physicians was so little known and referred to. The whole question of diffusion by water, human excreta, and of sporadic cases had been gone into. Occasionally water was a means of diffusion. When a ship was said to bring contagion to a place it should be remembered that a ship is a locality. The late Dr. Addison, speaking to him of the contagiousness of cholera, said, with regard to the admission of a patient with cholera into Guy's, that if you bring in a man from Tooley-street with it you bring in the locality, and so cholera. During the last epidemic a cholera hospital was established at Whitechapel, under the care of Dr. Sutton. The disease never spread to the nurses or the attendants, and he thought for this reason: as soon as the patient entered, his clothes were taken away, the patient sponged with Condy's fluid, and the hair cut; and this regulation he had helped to enforce lest the locality as well should be brought in by the patient. He did not believe in the evidence of the contagiousness of cholera. He thought the statement that it was spread by the evacuations was a good working theory, as it acted by frightening people, but proof of it as a scientific fact was wanting, and he would be glad to learn it. If this was one cause there were others. He believed it always came by ship, but sporadic cases were always met with before an outbreak.

He referred to the outbreak of Asiatic cholera in Mr. Druit's farm in Surrey for poor children, in the epidemic of 1848. About half of the children died, and it was at first supposed that their deaths had been hastened by bad food, poison etc., and Mr. Druit died broken-hearted on account of the way he was judged by public opinion. After a time it was clearly seen that it was the beginning of the outbreak. And often isolated cases, not traceable to human intercourse, have preceded outbreaks. At present there was no scientific theory of the spread by contagion and evacuations. It was singular how heights above the sea-level had to do with the origin of cholera. Cholera does not descend streams, but ascends them. This is a fixed and certain law. As to sanitary improvements, there were two views, but only one mentioned in the paper. Sanitary improvement fortifies the body against epidemics by means of good air, ventilation, and cleanliness; then it removes telluric influences, as damp, dirt, etc., and so improves the health of the people.

Dr. Buchanan hoped Sir W. Gull would retract the expression that the water theory was useful though false; he would be sorry to advance a water theory if he thought it false. [Sir W. Gull then said he would say, "an imperfect one."] He thought the remarks made about cholera in the first part of the paper were equally applicable to fever, and not alone to typhoid, but he would say even for typhus fever every assertion would hold good. He was sorry to hear many assertions which had been put forth about personal contagion. When Dr. Cuningham said he looked to India for evidence, and did not consider that brought forward in England, he would ask him to look afresh at our evidence. He did not think the circumstances in India were favourable for the investigation of cholera. If we wished to study measles or scarlet fever, would we go to a large place like London, or to a remote village, or to a place where its introduction is easily ascertained? Could outbreaks of yellow fever be as well worked out in the West Indies as the outbreak at Swansea was? It was from these out-of-the-way cases that we learn. With regard to the arrest of cholera, he thought by preventing filth being out of its place we did a great deal, as the poison is associated with excrementitious matter. He regarded atmospheric influence and telluric influence as mere words, and inoperative as causes.

Mr. Netten Radcliffe stated that he should have had some hesitation in taking part in the discussion, but, looking at the clock, he had begun to fear lest the discussion should come to an end without more definite reference having been made to the kind of facts upon which Dr. Cuningham had founded his opinions. Now, so far as the two points most prominently raised in the paper were concerned—those relating to the contagiousness of cholera, and the so-called water theory,—Dr. Cuningham's views were founded on fallacies. The "contagion" of which he spoke was not the "contagion" understood in this country; the "water theory" had hardly the faintest resemblance to what was meant here by the term. Dr. Cuningham judged of the contagion of cholera as if it were operative in the same way as the contagion of small-pox, and were, moreover, some self-operative agency acting irrespective of conditions. Such a doctrine of the contagiousness of cholera had no place in English teaching, so far as Mr. Radcliffe was aware. The very characteristic of biological study in this country for many years, in respect to contagious diseases, had been, and still was, the determination of the conditions under which the particular contagions of the several contagious diseases operated. Even small-pox was no exception to this study, and some of the most instructive data were furnished by inoculation. To argue that because the contagion of a disease did not operate unconditionally therefore contagion did not exist, was much the same thing as to argue against the germinative power potentially present in a potato or a grain of wheat because germination did not occur and growth follow, except they were placed in certain well-understood conditions. The whole of Dr. Cuningham's inquiries as to the contagion of cholera had been governed by notions of this kind, and a perusal of the data he gave would prove that the results of the inquiry as to contagion were valueless to English research. Again, as to the water theory. This theory had been broached here, and was used to explain certain facts of localisation alone. Dr. Cuningham spoke of the theory as inconsistent with the geographical distribution of the disease, as being negatived by the fact that bodies of troops widely separated from each other, and drinking from different sources of water, had been nevertheless severely attacked with cholera, and so forth. Such arguments proved that Dr. Cuningham was not dealing with the water theory understood here, but with something far different, and which had nothing in common with English notions. Even in one particular instance—the St. Peter's College, Agra—where an outbreak had occurred which would have led most English inquirers to make minute investigation into the sources of the water-supply, such inquiry, so far as the detailed report permitted a judgment to be made, had missed the very point to be inquired about. Mr. Radcliffe regretted that the time at the disposal of the meeting prevented him from illustrating the remarks he had made from point to point in Dr. Cuningham's report. He referred briefly to Dr. Cuningham's observations as to the absence of any evidence in India that a quickened traffic had accelerated the movements of cholera, and pointed out that the data given by Dr. Cuningham did not contain the materials for a judgment. He asked, also, whether, if it were true in the comparatively narrow field of diffusion to which the data referred, they would set aside the facts obtained from the study of the great migrations of 1832, 1848, and 1865, in the two latter of which the question of time of carriage from East Europe to America was a simple matter of observation. The first cargo of cholera carried to America in 1832 was carried in a sailing ship; the first cargo carried in 1866 was carried in a quick-sailing steamer. Dr. Cuningham maintained that the recent experience of India demonstrated the inaccuracy of the views now commonly entertained in this country as to the diffusion of cholera. He had illustrated, with respect to the water theory particularly, the outbreak of cholera in Broad-street and East London. Mr. Radcliffe contrasted the circumstantial character of the two outbreaks referred to with the inquiries instituted by Dr. Cuningham, and concluded by saying that inquiries which were held to set aside the results of the London inquiries should produce evidence of having been conducted with an equal degree of minuteness.

Dr. Farrer did not think that Dr. Cuningham had shown in anything a desire to underrate English labour. He was surprised to hear that India was not the place to study cholera. Dr. Cuningham had not dealt with opinions, but had mentioned facts. He believed cholera was due to some influence, not a poison. With regard to contagion, he thought there was as much evidence to prove it as there was against it.

Dr. Burdon-Sanderson said that Dr. Cuningham had come before them not bringing forward theories but only stating facts. He did not agree with Dr. Buchanan that India was not the place to investigate cholera; for as to the question of etiology, it was better to proceed by the law of exceptions; but then cholera was so widely spread that its existence in a place was not an exception, so it was difficult to apply the rule. But Dr. Cuningham rested on the immunity of places; that was the exception. So those who asserted that personal communication was the cause influencing the spread of cholera in India, and those who maintained cholera spread up a stream, and got down by contaminating the water, both had to contend with the absence of cholera in places. He thought cholera was a disease of local origin, and, to go further, it attached itself to organic matter in a state of decomposition. That was the opinion Pettenkofer contended for, though obtained from a different source, and as expressed by Dr. Cuningham from the results of his observations in India.

Dr. Cuningham, in reply, said that with regard to the etiology of cholera in India, there was an area in Lower Bengal where cholera was constantly present, and there were rises and falls of the disease, and beyond that area there were isolated cases, and epidemics prevailed. The supporters of contagion should take up these facts and grapple with them. As to Dr. Hardie's epidemics, supposed to be due to human intercourse, we had only to put against it that emigrants had gone from Calcutta to Mauritius for many years, and cholera was always present at Calcutta, and yet the epidemics Dr. Hardie spoke of were the only ones which had occurred. Because a ship arrived and cholera became epidemic over the island, should that be set down as the cause? The history of cholera in India was that it ascended streams, and did not descend them. The work of Sir W. Gull and Dr. Baly was well known in India, but he thought it was very little known in England. He thought that there was little more known of cholera here than there was twenty-five years ago. The doctrine of contagion was not a harmless one. He thought it a bad working theory as not being truthful. All that was said of the water theory showed that we had no evidence in support of it. Dr. Buchanan said the same arguments would apply to fever. But what if they did? The facts of small-pox were as

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inapplicable as those of cholera. Then he said the circumstances in India were not favourable for the study of the disease; but he (Dr. Cuningham) thought that it was quite as easy to do this in India as in England, and that was no reason upon which to set aside the evidence. As to the meaning of the words "contagion" and "water theory"—whether the water theory was the means of contagion, usually or rarely, was a matter of unimportance; the great question was, was there evidence of a single case in India or England that cholera spread by the evacuations of cholera patients? Anyone in India who had studied the question would throw aside the "Broad-street pump" evidence as valueless. The evidence he had brought forward with regard to the outbreak of cholera was as good as any evidence for any outbreak of cholera, or any other disease. Twelve or fifteen compounds had been attacked on or about the same day, and the people drew their water from different sources. With regard to the diffusion of cholera to-day as compared with that of former days, and depending upon the increased facility of communication, and that epidemics were gradually accelerating their rate of advance, he would only state that in 1817 a wave of cholera passed over India, and it took about seven months; in 1870 another wave passed over India, and it took three years, to travel from and to the same points, though the means of traffic by rail, good roads, etc., were multiplied manifold. With regard to the outbreak of cholera at St. Peter's School, Agra, it had been said that the whole thing was slurred over, and the evidence untrustworthy, and that it was due to contaminated water, which was used though it had been prohibited. He would only state that of twenty-four day-scholars who drank the same water all escaped except one, and he was the only one who resided in the same enclosure. Here, he thought, no water theory could be employed to explain the circumstances.

CLINICAL SOCIETY.

FRIDAY, MARCH 27.

PRESCOTT HEWETT, F.R.C.S., President, in the Chair.

DR. BUZZARD showed a patient, aged forty-six, who had recovered from an attack of General Paralysis supposed to be of Syphilitic Origin. The man had been brought to the National Hospital for Paralysis on January 8, 1873, with paralysis of both facial nerves, of all four extremities, and incomplete paralysis of respiration, deglutition, and of the right sixth nerves, together with general cutaneous anæsthesia. His condition was so grave that he was at once admitted. He could not lie down, and could only take fluid nourishment by spoonfuls. His attack had commenced one month previously with numbness in the finger-ends, and weakness of the legs and arms, which progressed so rapidly that in three days he could not leave his chair. One week after the onset his speech became thick, and he felt a sense of constriction around the waist. After another week his powers of deglutition and breathing were involved. He continued to get more and more feeble, so that when admitted he could not move his legs, and had the slightest power only of using the muscles of his thighs and arms. He was permanently lame in the right leg, from an attack of infantile paralysis in childhood. His health previous to the attack had been uniformly good. There had been no injury, nor diphtheria, nor exposure to cold; and the attack was unaccompanied by fever, pains, or muscular contractions. His pulse on admission was 76, and his temperature 99°. He had suffered from a chancre and bubo fourteen years previously, which were not followed by sore-throat or skin eruption. On admission, he was placed on a water-bed; beef-tea, eggs, and wine were ordered; and ten-grain doses of iodide of potassium given three times a day. Within twenty-four hours he had improved; and in a week he could lie down, could close the right eyelid to some extent, and could swallow solid food. The muscles of the legs, in which contractility to faradism had been abolished, now responded slightly to the induced current. In four days more the right eye could be completely closed, his breathing was no longer difficult, and his limbs were regaining power. At the end of January he could close both eyes; and in a few weeks more all the facial muscles had recovered. Towards the end of March he could stand with assistance; and on May 6 he could walk with some help. On May 21, four months and a half after admission, he was discharged, and a week or two afterwards resumed his employment, which he has since regularly carried on. At the present time he shows no traces of his attack. His treatment consisted of iodide of potassium in gradually increasing doses, amounting at last to sixty grains three times daily; and this was followed by subcutaneous injections of the chloro-albuminate of mercury for two months (for the formula, see *Lyon Méd.*, June, 1872). Dr. BUZZARD was of opinion that the attack was due to syphilitic thickning of the dura mater about the basilar process and upper part of the spinal column, causing pressure upon the pons Varolii and spinal cord.

DR. CAYLEY read particulars of a case of Hæmoptysis. The patient was a police-constable, aged twenty, with a phthisical family history, but who had himself always enjoyed good health. In taking a drunken woman into custody he received a blow with the fist below the right breast. A few hours afterwards he coughed up about half a pint of florid blood. During the next five days he continued to suffer from pain at the seat of the blow, but did not bring up any more blood. The hæmoptysis then returned, and continued at intervals for two days, and he was admitted into the Middlesex Hospital on October 14. It was then noticed that there was slight dulness under the right clavicle, and a friction-sound over the lower part of the chest. He continued to spit up small quantities of blood at intervals; the signs of considerable effusion into the right pleura showed themselves. His temperature became high, and he sweated profusely. On October 19 the hæmoptysis returned with great violence; he brought up torrents of bright red blood; he became blanched and livid, and died at 9 p.m., twelve days after receiving the blow. On post-mortem examination no injury to the soft parts or ribs was discovered. The right pleura contained two pints of pus. An abscess, holding half an ounce of pus, was found immediately beneath the costal pleura, close to the attachment of the diaphragm to the cartilages of the ribs in front. In the apex of the right lung was a caseous nodule, the size of a hazel-nut, and scattered through the upper lobe were some recent grey miliary granules. The lower part of the lung was collapsed. There were also grey miliary granules scattered over the peritoneal surface of the liver. The other viscera were normal. The connexion between the lesions in this case might be accounted for in several ways. First, we might suppose that the concussion of the blow caused the first attack of hæmoptysis; this, by producing inflammatory irritation of the lung, determined the eruption of tubercle, to which the patient was predisposed, and this caused the subsequent hæmoptysis; the abscess and pleurisy being also caused by the blow, but not being directly connected with the hæmoptysis or the tuberculosis. Or we may consider that the first attack of hæmoptysis was due to the blow; but this also caused the abscess and the empyema—the latter exciting the tuberculosis by infection, and this the subsequent hæmoptysis. But though chronic pleurisy, especially when the fluid is allowed to remain long in the pleura, not unfrequently excites tuberculosis, this is not often the case with acute pleurisy. A third hypothesis open to us is to consider that these lesions stand in no causal connexion with each other, but that the patient, who was of the tubercular diathesis, happened to receive a blow which produced an abscess and pleurisy at the time he was about to be attacked by tuberculosis. The legal responsibility of the person who inflicted the blow will depend upon which of these hypotheses is adopted.

DR. POWELL presumed the hæmorrhage was chiefly round the old disease—probably from the effects of the blow; and that the tuberculosis was due to the lighting up of the old disease. He would like to know if there was any evidence that the inflammation arose from the blood effused. In a certain number of cases, he was quite sure, hæmorrhage might set up acute disease. This man, too, was apparently healthy. He thought it rare to find acute tuberculosis set up after pleurisy, even after empyema.

DR. SYMES THOMPSON was not quite clear as to the sequence. No doubt the bleeding was largely instrumental in setting up the active disease. He had a case in some respects similar, where a blow on the side had been followed by signs of lung-mischief. The question was raised whether the bleeding had done harm or good.

DR. SOUTHEY said the case raised two interesting points—one medico-legal, one pathological. The man did not die directly from the blow, but indirectly, the part being excessively vulnerable. There was no evidence that the tubercle arose from the bleeding into the lung; but the lung itself was diseased. This was not one of Niemeyer's cases. The cause of

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the profuse bleeding was obscure. Acute tuberculosis often arose from empyema, even of short standing.

Dr. GREENHOW did not agree with Dr. Southey as regards the legal aspect of the case. The man who inflicted the injury was unquestionably guilty of manslaughter, for the patient might have lived long enough if he had not been struck. The tubercle in the lung was quite obsolete. He would like to see or to hear of a real and unmistakable case of phthisis *ab hæmoptor*. He greatly doubted the accuracy of Niemeyer's view. In this instance doubtless the blow caused the abscess and the hæmoptysis. He had seen hæmoptysis caused by such an injury, even severe in character, but ending in recovery. He had also seen a blow giving rise to pleurisy. He thought the tuberculosis had arisen from the obsolete tubercle.

Dr. POWELL said there was a very great difference between acute tuberculosis and inflammation as following a hæmorrhage. The former was very rare, if ever it took place; the latter was common. There was here probably a tendency to phthisis, but fresh disease was set up by the blood.

Mr. BRUDENELL CARTER said the question of law was clear enough: if death followed within a year and a day of the receipt of the injury, the person injuring the sufferer was guilty, in the eye of the law, of the man's death.

Mr. HEWETT said that many years ago he had seen a man who was injured on the chest. There was profuse hæmoptysis, and this was supposed to be due to a fractured rib, but there were no signs of that. The man died, and a large rent was found in the substance of the lung, whence the bleeding.

Other such cases were recorded.

Dr. CAYLEY said there was no sign of inflammation in the lung. It was compressed at the base by the pleural effusion.

Mr. T. WARRINGTON HAWARD read notes of a case of Blood-cyst of the Hand. The patient was a man, aged forty-three, married, and in good health, and with a good family history. For three years he had suffered from tingling and pain in the right forefinger, and for two years had had a gradually increasing tumour on the ball of the right thumb. This was punctured, and only blood escaped. He was admitted into St. George's Hospital, and the tumour removed by Mr. H. Lee, the limb being bandaged after Esmarch's method. The tumour was examined by Mr. Haward, who found it to be a cyst with thick walls of gelatinous appearance, containing in its interior smaller masses of material resembling that of the cyst-wall, and some old blood-clot. Microscopically, the cyst-wall and the contained masses were found to be composed of spindle-shaped cells with oval nuclei, closely placed in a very scanty intercellular material. The clinical histories of cases of blood-cyst were shown to exhibit very various characters, some cases doing well and others exhibiting decidedly malignant characters, this difference depending upon the character of the cyst-wall. The different kinds of blood-cyst having been spoken of, the author drew the practical conclusion that, in all such cases, the growth should be very completely removed, and, even then, that a guarded prognosis should be given.

Mr. P. HEWETT had had a similar case. A lady had a large fluctuating tumour in the palm of the hand. He thought it was a bursal swelling, and opened it. Bloody fluid appeared, and in a few days fungating growths, which bled much, began to sprout from the edges. He amputated the forearm. Ultimately she died of phthisis the year after, without any return. Another lady had a dark-looking cyst in her breast for eighteen years. She had punctured it from time to time, and let out fluid. She got tired of this, and had it removed. The breast was seen to consist of a single large cyst. She remained well for years, but died of cancer in the axilla. There was no malignancy in the cyst.

Mr. T. SMITH mentioned the case of a boy who fell and struck his calf. He was seen with a collection of blood in the calf. This was removed, but it accumulated again and again, and finally turned cancerous. The limb was amputated, but the child died of internal cancer.

Mr. CALLENDER had often seen cases of disease referred to an injury. To take a subsidiary point in the case, what was the experience at St. George's as regards Esmarch's method? He thought it was peculiarly inapplicable to some cases, and that profuse bleeding often followed removal of the ligature.

Mr. HEWETT said Esmarch's method suited very well in this case, one could see so well what to remove.

Mr. PECK said that the method suited well for operations on bone, and for tumours of the extremities. It took a good deal of time, and was not altogether satisfactory at [illegible].

Mr. HAWARD said some of these cysts were malignant from the first, others not so; but a malignant growth might spring even from these last, just as it might from an old cicatrix. Esmarch's method was very useful, but its uses were very limited.

Mr. CALLENDER described for Dr. Packard, of Philadelphia, a Bracketed Splint for Excision of the Knee and for Compound Fracture. The essential idea of the splint was that of a solid support for the whole limb, the middle portion, or that corresponding to the knee, being removable, the other portions being firmly bracketed together. The object of the splint was to keep the knee at absolute rest until the union of the sawn surfaces had taken place, and at the same time provide means for changing the dressings without removing the limb from the splint. The principle of the splint was based on that of the ordinary interrupted splint, but it was fashioned in such a way that the central or "interrupted" part, corresponding to the wound, instead of being removed altogether, was made to fit into the others by means of a tongue and groove, and so could be slipped like a shaft into its place, and be removed at will for the purpose of dressing the wound.

OBITUARY.

SURGEON-MAJOR JOHN WYATT, C.B.,

DIED at Bournemouth on the 2nd inst., after a long illness. He was the eldest son of the late Mr. James Wyatt, of Lidsey, Sussex. He entered the Army Medical Service in 1851 as Assistant-Surgeon; was gazetted Surgeon in 1857, and Surgeon-Major in 1863. He was with the army in Turkey and the Crimea from 1854 until the close of the campaign, and was present at the battles of the Alma, Balaklava, and Inkerman, and at the siege and fall of Sebastopol. His horse was shot under him at Inkerman. Mr. Wyatt was selected by the War Department as Medical Commissioner to the head-quarters of the French army in the late Franco-German war. He was in Paris through the whole of the siege and bombardment by the German army, and was present at the principal sorties of the beleaguered army and at the consequent battles, and rendered important service to the wounded. Mr. Wyatt received many honours and decorations. After the war in the Crimea he received the Crimean Medal and four clasps, the Knighthood of the Legion of Honour, and the Turkish Medal. During the siege of Paris he was elected a member of the Council of the Société de Sécours aux Blessés and of the Ambulance de la Presse. In 1873 he received the Companionship of the Bath.

The following regimental order has been forwarded to us for publication respecting the death of Surgeon-Major Wyatt:—

"Coldstream Guards, Orderly Room,
"Horse Guards, London.

"In announcing to the regiment the sad news of the death of Surgeon-Major Wyatt, C.B., the commanding officer feels sure that he will express the feelings of every member of the Coldstream Guards when he says a severer loss could not have befallen the regiment; nor can he record so melancholy an event without bearing some tribute to the untiring zeal and brilliant talents of an officer who, during a service of nearly twenty-three years, has won for himself a reputation almost as widespread in France as in his own country. Few men stood higher in the profession to which Surgeon-Major Wyatt belonged, and it is unquestionable that the energy he displayed during the siege of Paris, and the great professional skill which he there had the opportunity of showing, reflected no small credit on the corps of which he was such an ornament. Considering the impaired state of his constitution, he would undoubtedly have been justified in declining to undertake the arduous duties at that siege, for which he had been specially selected by the Secretary for War, and it is certain that his death was hastened by the hardships and privations which, in his unflinching zeal, he had so nobly and voluntarily borne."

M. ANTOINE MURON.

MANY of the surgeons of hospitals and frequenters of our libraries and museums, to whom this promising young surgeon had become known during his recent visit to London, will hear with great regret of his almost sudden death (caused, as it is said, by deep-seated anthrax of the nasal fosse) shortly after his return to Paris. Having distinguished himself as a pupil at the Lyons Medical School under Professors Ollier and Viennois, he was in the midst of his *internat* at Paris when the war broke

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out. He immediately attached himself to an ambulance, and eventually joined the unfortunate Armée de l'Est, going through all its sufferings and perils, and performing his duties of surgeon with a zeal and aptitude that secured him the Cross of the Legion of Honour. After the peace he returned to his *internat* at the Necker Hospital, the Commune soon supplying him with only too many opportunities for the display of activity, courage, and devotion to the sick. Eventually he was appointed *préparateur* to the course of physiology under Professor Béclard, of the Faculty of Medicine, and became one of the most active members of the Biological Society. His great abilities and untiring industry would doubtless have secured for him a distinguished career, and several of his contributions to the Society indicate great scientific aptitude and power of observation. Dying at the age of thirty-one, he is the third young Frenchman of great promise who has been removed just when their talents and laborious investigations were aiding that active scientific movement which is to prove one of the principal regenerative factors of France. Charles Legros and Fernand Papillon only preceded Muron by a few weeks.

MEDICAL NEWS.

ROYAL COLLEGE OF SURGEONS OF ENGLAND.—The following gentlemen passed their primary examination in Anatomy and Physiology at a meeting of the Court of Examiners on the 7th inst., and when eligible will be admitted to the pass examination :—

Atkinson, Richard, student of the London Hospital.
Bain, David S. E., of the Charing-cross Hospital.
Barnes, Reglan W., of University College.
Brett, James, of the Birmingham School.
Chadwick, John, of the Manchester School.
Davies, Francis J., of University College.
Eve, Frederic S., of St. Bartholomew's Hospital.
Farbstein, Henry, of the Leeds School.
Gorst, Henry, of the Liverpool School.
Gresham, Frederick C, of the Liverpool School.
Guy, John R., of the Bristol School.
Harding, George C., of St. George's Hospital.
Harris, Stanford, of the Manchester School.
Higgins, George H., of the Leeds School.
Hunter, Robert H. A., of the Edinburgh School.
Kay-Shuttleworth, L. E., of St. George's Hospital.
Lucas, Joseph H. R. W., of the Liverpool School.
McCreary, John A., of New York.
Parker, Arthur F., of the Bristol School.
Sanctuary, Thomas, of the Leeds School.
Shepherd, Francis J., of McGill College, Montreal.
Snell, Edward A., King's College.
Spofforth, John, of the Birmingham School.
Stace, Malcolm V., of the Middlesex Hospital.
Townsend, Charles P. G., of the Birmingham School.
Waterhouse, Joseph, of Guy's Hospital.
Wise, Alfred T. T., of St. Mary's Hospital.

Nine candidates failed to acquit themselves to the satisfaction of the Court.

The following passed on the 8th inst., viz. :—

Brookes, Walter J., student of the Charing-cross Hospital.
Cattle, Charles H., of the Leeds School.
Davis, Charles J., of the Birmingham Hospital.
Dawson, Cautley, of the Leeds School.
Dunbar, James J. M., of St. George's Hospital.
Fisher, Stephen H., of the London Hospital.
Fisher, Thomas, of St. Thomas's Hospital.
Gathergood, Benjamin W., of Guy's Hospital.
Gibson, Charles P., of the Leeds School.
Glyn, Herbert A., of St. Bartholomew's Hospital.
Hatch, William K., of King's College.
Hodson, Henry H, of University College.
Hodson, Robert D., of St. Mary's Hospital.
Hollingworth, John, of the Leeds School.
Kyan, John H., of University College.
Latham, William, of the Liverpool School.
Lewis, Daniel G., of University College.
Lory, William M., of University College.
Macintire, John H. L., of the Middlesex Hospital.
Ormerod, Joseph A., of St. Bartholomew's Hospital.
Packer, William H., of the Charing-cross Hospital.
Page, William H., of St. Thomas's Hospital.
Perry, Francis F., of University College.
Robinson, Ernest L., of St. George's Hospital.
Ryley, James, of University College.
Sedgefield, Arthur R. W., of King's College.
Shoolbred, William A., of St. Bartholomew's Hospital.
Smith, John T., of the Liverpool School.
Symonds, C. James, of Guy's Hospital.
Tomkins, Henry, of the Manchester School.
Twinem, John, of the Liverpool School.
Wright, William H., of the Liverpool School.

Four candidates failed to acquit themselves to the satisfaction of the Court of Examiners.

The following passed on the 9th inst., viz. :—

Bevan, Richard, student of Guy's Hospital.
Burton, Samuel H., of University College.
Calcott, Lewis B., of St. Bartholomew's Hospital.
Champneys, Henry L., of Guy's Hospital.
Chawner, Alfred, of King's College.
Clements, William G., of the Middlesex Hospital.
Crocker, Henry L., of University College.
Davies, John, of Guy's Hospital.
Don, Arthur G., of University College.
Farmar, Edward D., of St. George's Hospital.
Fisk, George H. B., of University College.
Hunt, George A., of Guy's Hospital.
James, Alfred, of University College.
Moone, John, of University College.
Moullin, Charles W. M., of St. Bartholomew's Hospital.
Mugliston, Thomas C., of University College.
Pearless, Walter R., of St. Bartholomew's Hospital.
Pearse, Joshua S., of University College.
Peck, Frederick H., of St. Thomas's Hospital.
Rees, David V., of the London Hospital.
Poole, Charles M., of St. George's Hospital.
Reynolds, William P., of Guy's Hospital.
Saunders, Edward A., of University College.
Sharkey, Seymour J., of St. Thomas's Hospital.
Stephenson, William A., of University College.
Todd, Howard J. McC., of St. Thomas's Hospital.
Tyrrell, Walter, of St. Thomas's Hospital.
Wilkins, Gilbert H., of St. Thomas's Hospital.

Eight candidates failed in this examination.

APOTHECARIES' HALL.—The following gentlemen passed their examination in the Science and Practice of Medicine, and received Certificates to practise, on Thursday, April 2 :—

Barlow, Thomas Carey, Dalston.
Davies, Elijah Knox, Brimscombe Court, Gloucestershire.
Rudduck, John Burton, Epping, Essex.
Simmonds, Wm. Allason, Gravesend, Kent.

APPOINTMENTS.

*** The Editor will thank gentlemen to forward to the Publishing-office, as early as possible, information as to any new Appointments that take place.

CHEYNE, W. R., M.R.C.S.—Surgical Registrar at the Westminster Hospital, *vice* Mr. Ramsay, M.R.C.S.

HARRISON, H. F. E., M.R.C.S. Eng., L.R.C.P. Lond.—Medical Officer for No. 4 District, and Public Vaccinator for No. 3 District of the Fulham Union.

HYDE, GEORGE EDWIN, M.R.C.S. Eng., L.R.C.P. Lond.—Medical Officer of Health for the Martley Rural Sanitary District, *vice* Mr. Blyth, appointed to the Bideford Rural combined with other Sanitary Districts.

JOSEPH, GEORGE WM., L.K.Q.C.P.I., L.M., M.R.C.S. Eng., L.S.A.—Medical Officer of Health for the Borough of Warrington, *vice* F. Barton, M.R.C.S. Eng., L.S.A., resigned.

MOORE, JOHN, M.D., M.R.C.S.E.—Surgeon to the County Antrim Prison, *vice* Mr. H. Purdon, resigned.

ORMSBY, GEORGE HENRY, L.R.C.S.I., L.K.Q.C.P.I., L.M.—Medical Officer and Public Vaccinator for the Whitmore District of the Newcastle-under-Lyme Union.

MILITARY APPOINTMENTS.

WAR OFFICE.—MEDICAL DEPARTMENT.—Surgeon-Major Robert Beresford Smyth, M.B., retires upon half-pay. Surgeon Samuel Wesley Handy is placed upon temporary half-pay.

BREVET.—The undermentioned officers of her Majesty's Indian Military Forces to have a step of honorary rank on retirement :—To be Surgeons-General—Deputy Surgeons-General Charles Lindsay Cox, Bengal Army; Thomas Hastings, Bengal Army; Charles Archer, M.D., Bengal Army; and George Ranken Playfair, M.D., Bengal Army. To be Deputy Surgeons-General—Surgeons-Majors Andrew Fleming, M.D., Bengal Army, and Frederick Morrison Clifford, Bengal Army.

BIRTHS.

KYNSEY.—On April 1, at Cosham, Hants, the wife of W. R. Kynsey, Staff Surgeon Army Medical Department, of a son.

OGILVY.—On March 9, at Simla, East Indies, the wife of Surgeon-Major J. Ogilvy, M.D., H.M.S., and Secretary to the Principal Medical Officer in the East Indies, of a daughter (Eveline Florence).

STEPHEN.—On March 31, at 58, Queen's-gate-terrace, South Kensington, the wife of Andrew Stephen, M.D., of a daughter.

MARRIAGE.

HOOGAN—MORGAN.—On April 1, at the Registrar's Office, 1, Milton-street, and afterwards at 13, Granville-place, Portman-square, George Hoggan, M.B., C.M. Edin., formerly of H.M. Indian Navy, to Frances Elizabeth Morgan, M.D.

DEATHS.

CHINERY, EDWARD, M.D., at Lymington, Hants, on April 1, aged 58.

HAYWARD, SYDNEY, M.D., of Overton, Hants, second surviving son of Henry Hayward, Esq., of 11, Belsize-park-gardens, at Lansdowne, Falmouth, the residence of his brother-in-law, Captain Sanley, R.N., on April 1.

KEAL, WILLIAM TOMBLIN, M.D., at Wharfland House, Oakham, on April 5, aged 82.

KENNYSIDE, RICHARD HEADLAM, M.D., at Vernon House, Surbiton, on April 5, aged 77.

NESHAM, CAROLINE JANE, wife of T. C. Nesham, M.D., and third daughter of the late Robert Anderson, Esq., of the Bank of England, Newcastle, on March 31, at Newcastle-on-Tyne.

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McLennan, John, M.D., F.R.C.P.L., late Physician-General Bombay Army, suddenly, on April 5, at his residence, 101, Harley-street, W., aged 72.

Suther, Sarah Crank, wife of P. Suther, M.D., Deputy Inspector-General of Hospitals and Fleets, at Southsea, on April 1.

Wyatt, John, C.B., Regimental Surgeon-Major Coldstream Guards, eldest son of the late James Wyatt, Esq., of Lidsey, Sussex, at Bournemouth, after a long illness, on April 2.

VACANCIES.

In the following list the nature of the office vacant, the qualifications required in the Candidate, the person to whom application should be made, and the day of election (as far as known) are stated in succession.

Berks County Asylum, Moulsford, Wallingford.—Assistant Medical Officer. Candidates must be duly qualified. Applications, with testimonials, to Dr. R. B. Gilland, Medical Superintendent.

Bootle Borough Hospital.—House-Surgeon. Candidates must possess both a medical and surgical qualification. Applications, with testimonials, to T. P. Dawson, Honorary Secretary, on or before April 20.

Bristol General Hospital.—Physician. Candidates must be duly qualified. Applications, with testimonials, to the Secretary, Henry Fox, Esq., R.N.

Bury Dispensary.—House-Surgeon. Candidates must be duly qualified. Applications, with testimonials, to the Secretary, on or before April 16.

Cheltenham General Hospital and Dispensary.—Honorary Medical Officer at the Branch Dispensary. Candidates must be duly qualified and registered. Applications, with testimonials, to the Board of Governors before May 1.

Cumberland Infirmary.—House-Surgeon. Applications, with testimonials, to Mr. John Laver, Secretary, on or before April 22.

Hospital for Sick Children, 49, Great Ormond-street.—Medical Registrar. Candidates must possess legal qualifications. Applications, with testimonials, to the Secretary, on or before April 15.

Hull General Infirmary.—Honorary Physician. Applications, with testimonials, to the Chairman, at the Infirmary.

King's College Hospital.—Assistant-Physician, Pathological Registrar, and Curator of the Anatomical Museum. For particulars apply to J. W. Cunningham, Esq., King's College, Strand.

King's College Hospital.—Assistant Dental Surgeon. For particulars apply to J. W. Cunningham, Esq., Secretary, King's College, Strand.

Lancaster County Asylum.—Assistant Medical Officer. Applications, with testimonials, to the Superintendent.

Leeds General Infirmary.—House-Physician, also House-Surgeon. Candidates must be duly qualified. Applications, with testimonials, to Dr. Heaton, The Infirmary, Leeds, on or before April 30.

Lincoln County Hospital.—House-Surgeon and Apothecary. Candidates must be M.R.C.S. Eng. and L.S.A., or L.R.C.P. Lond. Applications, with testimonials, to the Secretary, on or before May 4.

Lunesdale Union.—Medical Officer. Applications, with testimonials, to Mr. R. Stephenson, Hornby, near Lancaster, on or before April 21.

North London Consumption Hospital, Hampstead.—Candidates must be F. or M.R.C.P. and graduates of a university (or qualify within twelve months). Applications, with testimonials, to the Secretary, Mr. W. Hornibrook, at the offices, 216, Tottenham Court-road, W., on or before April 15.

Royal South London Dispensary, St. George's-cross, Lambeth-road, S.E.—Honorary District Surgeon. Applications to M. Hentsch, at the Dispensary.

St. Thomas's Hospital.—Resident Assistant-Physician. Candidates must be duly qualified. Applications, with testimonials, to the Treasurer, at the office, St. Thomas's Hospital.

Wandsworth and Clapham Union.—Medical Officer for the Parish of Putney. Candidates must be duly qualified. Applications, with testimonials, to Mr. John Sanders, Clerk, at the Union Offices, St. John's-hill, New Wandsworth, on or before April 14.

Wolverhampton and Staffordshire General Hospital.—House-Surgeon. Candidates must be duly qualified. Applications, with testimonials, to the Chairman of the Medical Committee, on or before April 27.

UNION AND PAROCHIAL MEDICAL SERVICE.

*** The area of each district is stated in acres. The population is computed according to the census of 1871.

RESIGNATION.

Fulham Union.—Mr. A. Hunt has resigned the Fourth District; area 528; population not known; salary £50 per annum.

APPOINTMENTS.

Bootle Union.—Percy B. Stoney, L.R.C.P. Edin., M.R.C.S. Eng., to the Millom District.

Cambridge Borough.—Mr. Richard Apjohn, as Analyst.

Droitwich Union.—Walter Moore, M.R.C.S. Eng., L.S.A., to the Hartlebury District.

Easington Union.—John E. L. Macdonald, L.R.C.S. Dub., L.A.H. Dub., L.R.C.P. Edin., to the Thornley District.

Edmonton Union.—Edward William B. Garlike, M.R.C.S. Eng., L.R.C.P. Edin., to the Cheshunt District.

Isle of Ely. Mr. Richard Apjohn, as Analyst.

Luton Union.—Jonas T. Herbert, L.R.C.P. Edin., L.F.P.&S. Glasg., to the Markyate-street District.

Royston Union.—Edmund W. Parkinson, L.R.C.P. Edin., M.R.C.S. Eng., L.S.A., to the Fourth District.

Truro Union.—Henry Whitworth, M.D. Glasg., to the St. Agnes District.

Ulverstone Union.—George Parsons, M.B. Dub., L.R.C.S. Ire., to the Hawkshead District.

Uttoxeter Union.—Wm. B. Weston, M.R.C.S. Eng. L.S.A., to the Rocester District.

Wareham and Purbeck Union.—Peter W. De la Motte, L.R.C.P. Edin., M.R.C.S. Eng., L.S.A., to the Swanage District.

Woodbridge Union.—Edmund Fitz-Garret Butler, L.K.&Q.C.P., L.R.C.S. Ire., L.S.A., to the Walton District.

RETIRING ALLOWANCE.

Abingdon Union.—Mr. J. S. Barrett, late Medical Officer for the Third District, after fifty years' service, has been granted a retiring allowance of £73 6s. 8d. per annum.

King and Queen's College of Physicians, Ireland.—At a meeting of the College, held on Saturday, April 4, 1874, a by-law was adopted containing the following rules and regulations respecting female candidates for examination for a licence to practise as midwives and nurse-tenders:—Qualifications: Age to be not less than twenty-one years; certificates of character. Preliminary examination: Reading, writing, and arithmetic. Course of instruction: Six months' attendance on systematic lectures on midwifery, and not less than six months' attendance on bedside instruction in a lying-in hospital or maternity recognised by the College. Subjects for the examination: Midwifery (not including operations), and nurse-tending. Examination fee: One guinea. Form of midwife's licence: We, the President and Fellows of the King and Queen's College of Physicians in Ireland, having duly examined A. B. in midwifery and nurse-tending, and having found her to possess a competent knowledge of the same, do hereby license and authorise the said A. B. to exercise the calling of a midwife and nurse-tender.

Anatomical Examinations.—The following were the questions in Anatomy and Physiology submitted to the 192 candidates at the primary examination for the diploma of Membership of the Royal College of Surgeons of England, on the 4th inst.:—1. Describe the venous sinuses within the cranium, and the course and relations of the great vessel which receives their blood on the right side from its commencement to its termination. 2. Mention the parts in contact with the levator ani muscle. 3. Give the origin, course, distribution, and relations of the interosseous nerves. 4. From what sources does the portal vein receive its blood? Describe its distribution, and trace the course of the blood onwards into the general circulation. 5. Describe the form and relations of the popliteus muscle; and mention, in the order in which they appear, the parts which must be removed to expose it. 6. Explain the effect of complete division of the spinal cord immediately above the origin of the phrenic nerve.

Mr. William H. O'Leary, M.P., has been presented with an épergne and an address, by the students of the Ledwich School of Medicine, and St. Vincent's Hospital, Dublin, on the occasion of his entering Parliament as member for Drogheda.

A committee has been formed in Edinburgh University to found a memorial to the late Dr. Macfarlane, resident medical assistant at the Edinburgh Royal Infirmary. Messrs. Livingstone, of South-bridge, are the treasurers.

At the last meeting of the St. Andrews University Court, it was agreed to recognise the pathological lectures of Dr. Coghill, and the materia medica lectures of Dr. F. W. Moinet, which are delivered in Edinburgh, as qualifying for graduation in St. Andrews University.

Composition and Quality of the Metropolitan Waters in March, 1874.—The following are the returns (by Dr. C. M. Tidy, M.B., for Dr. Letheby) of the Society of Medical Officers of Health:—

Names of Water Companies.	Total Solid Matter per Gallon.	Oxygen required by Organic Matter, &c.	Nitrogen.		Hardness.	
			As Nitrates &c.	As Ammonia.	Before Boiling.	After Boiling.
Thames Water Companies.	Grains.	Grains.	Grains.	Grains.	Degs.	Degs.
Grand Junction .	20·83	0·063	0·114	0·002	15·8	4·0
West Middlesex .	20·90	0·060	0·130	0·005	15·8	4·6
Southwark & Vauxhall . . .	20·63	0·071	0·114	0·075	15·8	4·2
Chelsea . . .	20·23	0·071	0·114	0·075	15·8	4·2
Lambeth . . .	—	—	—	—	—	—
Other Companies.						
Kent . . .	28·16	0·002	0·137	0·003	21·2	6·0
New River . .	19·2	0·015	0·114	0·004	15·8	3·3
East London .	21·56	0·034	0·164	0·006	16·5	4·2

Note.—The amount of oxygen required to oxidise the organic matter, nitrites, etc., is determined by a standard solution of permanganate of potash acting for three hours; and in the case of the metropolitan waters the quantity of organic matter is about eight times the amount of oxygen required by it.

The water was found to be clear and nearly colourless in all cases but the following, when it was slightly turbid—namely, the Chelsea, the Grand Junction, and the Southwark and Vauxhall Companies.

The returns of the Lambeth Water Company have not been received.

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THERE were 1349 deaths in London last week, being 400 below the average. There were 51 deaths from measles; not one from small-pox.

SCARLET FEVER continues somewhat fatally prevalent in Leeds and Sheffield, and small-pox has caused 122 deaths in Birmingham during the past thirteen weeks.

ACCORDING to advices from Yokohama, the hospital of the French navy was totally destroyed by fire on February 8. Fortunately no lives were lost. The patients were taken to the barracks of the Naval Infantry, which had been hastily prepared for them.

AN outbreak of scarlet fever in Toxteth-park, Liverpool, is reported. Several cases have been traced to the use of milk supplied by dealers whose cows had drunk of well-water contaminated with sewage.

THE Melbourne Coroner appears to have discovered a new disease in sheep, which he says has killed thousands of valuable animals. In post-mortem examinations that he had made, he found the first and second stomachs containing myriads of small worms. Hydatids were also present in considerable numbers, particularly under the jaw. The blood was in a very fluid state, resembling that of a man who had died from snake-bite.

AN ENORMOUS PRIZE ESSAY.—M. Jules Guérin, the successful competitor for the great Academy Physiological Prize of 10,000 fr. in 1837—subject, "The Scientific Principles upon which the Practice of Orthopædia should be based,"—sent in an essay occupying sixteen folio volumes, with 100 tables and 400 plates.—*Union Médicale*, February 7.

TRACHEOTOMY.—In a paper on this subject M. Bouchut relates several cases in proof that after the operation of tracheotomy it is sometimes impossible to remove the canula for weeks, months, or even years, in consequence either of a contraction of the trachea having taken place, or of polypiform vegetations having been formed.—*Gaz. des Hôp.*, March 24.

M. PASTEUR.—Acting upon the report of a commission charged with the examination, from the point of view of the importance of their practical results, of the investigations of M. Pasteur, of the Institut, relative to the manufactures of wine, vinegar, beer, and silk, M. Fourtou, the Minister of Public Instruction, has just laid a proposition before the National Assembly that this *savant* shall have granted to him a pension for life as a national recognition of his great services.

ACADÉMIE DE MÉDECINE.—M. Villemin has been elected into the Section of Medical Pathology, having obtained forty-three votes to the thirty-four given for M. Jaccoud.

NOTES, QUERIES, AND REPLIES.

He that questioneth much shall learn much.—*Bacon.*

Dr. James Dickson, Portland, Oregon.- Letter, with enclosure, received.

Mr. W. Grey, Sydney.—Letter, with enclosure, received.

Juvenis has a clear right to apply for a post advertised as vacant. Into a question of local etiquette we cannot enter.

T. B.—Try Van Abbott, Prince's-street, Cavendish-square, W.

Quis.—Dr. Lyon Playfair will preside over the Health Department at the Social Science Congress, which is to meet at Glasgow in the autumn.

Nero.—1. No. 2. A Surgeon-General instead of a Deputy Surgeon-General is in future to have the charge of Gibraltar.

Regis.—"Peeps into the Human Hive," by Dr. Andrew Wynter (Chapman and Hall).

An Anxious Student, Guy's.—Decidedly! "Qui couche avec la soif, se leve avec la santé." One hour's sleep before midnight is worth two after.

Old Mortality, Glasgow.—The remains of Hunter now repose in Westminster Abbey. Dr. John Ash was buried at Kensington; the celebrated Cheselden in Chelsea Hospital. There is a monument to the memory of Dr. Dillenius, at St. Peter's-in-the-East, Oxford. Sir T. Mayerne under the Church of St. Martin's-in-the-Fields.

"*Pulvis Jacobi.*"—In her interesting "Diary," Madame D'Arblay says, on visiting Lichfield—"I tried to find the residence of Dr. James, inventor of the admirable fever powders, which had so often saved the lives of people without number; but the ungrateful inhabitants knew nothing about him."

Demonstrator.—To Dr. Valentine Mott, of New York, is due the merit of having been the first to suggest, and the first to effect, the ligature of the common iliac artery.

"HOW SHALL YOUNG LADIES BE FLOGGED?"

TO THE EDITOR OF THE MEDICAL TIMES AND GAZETTE.

SIR,—The late George Colman was in advance of "A Country Physician"—witness the following lines. The subject of trashy novels is under discussion:—

"'Were I a Pastor in a boarding school,
I'd quash such books *in toto*;—if I couldn't,
Let me but catch one Miss that broke my rule,
I'd flog her soundly—damme if I wouldn't!'

"William, 'tis plain, was getting in a rage;
But Thomas dryly said,—for he was cool,—
'I think no gentleman would mend the age
By flogging ladies at a boarding school.'"

Whip me if I am not yours obediently,

March 31. T. E. A.

AN APPEAL.

An appeal is earnestly made to the profession on behalf of a medical man, Mr. Orby Carey, suffering from paralysis, the result of spinal disease. At an early age, owing to delicate health, he was obliged to give up the study of his profession and go to Australia. Recovering there, and having saved sufficient from his hard earnings, he returned to Ireland, and took out his qualifications. Starting again for the colony, by steady and persevering labour he worked up a good practice, but ere he could reap the benefits he was struck down, and obliged at a great sacrifice to return home for treatment. He has a wife and three young children, temporarily provided for. He has no private means; no relatives able to assist; and, from leaving home when a boy, few friends. There are fair hopes of his recovery. His general health is so low he is advised not to go to hospital if possible. He prays his professional brethren, especially his brother Masons, will aid him. Reference permitted to B. E. Brodhurst, F.R.C.S., 20, Grosvenor-street, London; and subscriptions received by Calvert Toulmin, Esq., 69, Inverness-terrace, Hyde-park, London, W., and D. H. Fry, Esq., Plashet, East Ham, London, E.

A Student.—The primary examination takes place this day at the College of Surgeons.

Dr. McM., Liverpool.—It is a mistake on the part of the writer in the newspaper. The admirable pocket filters of Messrs. Atkins were largely supplied by Government to the Ashantee troops; and so highly does Professor Flower (formerly in the Army) appreciate them, that before proceeding to the East he purchased a couple. They are in constant use in the College of Surgeons.

Dr. B., Epsom.—Unable to answer you last week; but perhaps the following is the epitaph to which you allude:—

"Here lies I and my three daughters,
Killed by a drinking of the *Cheltenham* waters.
If we had stuck to *Epsom* salts,
We'd not been lying in these here vaults."

CASE OF DR. JACKMAN.

TO THE EDITOR OF THE MEDICAL TIMES AND GAZETTE.

SIR,—Everyone must regret the unkind manner in which Dr. Jackman has been treated by the Guardians of the Barnstaple Union, who, it appears, took away his appointment when, from his age (seventy-four years), they thought him past work; and who also, although he had been medical officer so many years, refused to allow him the small pension previously voted. It is to be hoped that this case will induce any poor-law medical officer who may not have joined the Poor-law Medical Officers' Association, to do so now. One of the many grievances which they are endeavouring to redress is that all engaged in the Poor-law Service shall be entitled to a pension after a certain number of years' service, and that it be paid out of the common fund. I am, &c., L. M. Y.

Dr. Darling.—Robert Fludd, the Rosicrucian doctor, whose humour it was to style himself Robertus de Fluctibus, just as the priestly buffoon Andrew Boorde, whose name really signified "a cottager" (*bordarius*), used to sign himself, with a pen and a pun, Andreas Perforatus. The late Professor Partridge, of King's College, called one of his carriage-horses "longissimus dorsi." Bulbous Roots, M.D., is the *nom de plume* of a well-known writer in *Land and Water*.

Sex.—The penalty on conviction for describing himself "M.R.C.S. Eng." is £20, which was inflicted by Mr. Knox on the notorious Dr. Robert Jacob Jordan; but no portion of the fine can be recovered by you, it all goes to the police fund. We notice, however, that a "Bill to amend the law relating to the disposition of Fines, Fees, and Penalties," is ordered to be brought in by Mr. Sergeant Simon, and Messrs. Melly, Charley, Rathbone, Mellor, and Gousley. Perhaps the authorities of the General Medical Council, College of Surgeons and Hall, could make some valuable suggestions to these gentlemen.

COMMUNICATIONS have been received from—

T. B.; T. E. A.; Mr. J. W. ELTON, Bridlington; Mr. W. P. PHILLIMORE, Nottingham; Mr. J. COLLIE SMITH, Aberdeen; DR. SPARKS, Weymouth; Mr. BENJAMIN VINCENT, London; Mr. J. HAY, Wolverhampton; Mr. HENRY SEWILL, London; Mr. HENRY SCOTT, Brisbane, Queensland; Mr. WILLIAM TALLACK, London; THE SECRETARY OF THE SOCIETY OF APOTHECARIES, London; Mr. R. JOHNSTON, Glasgow; L. M. Y.; Dr. VINCENT RICHARDS, Calcutta; Dr. ROBERTSON, Buxton; Mr. L. H. FAWCETT, Morebath; Dr. CLARKE, Leicester; Messrs. J. B. LIPPINCOTT AND Co., Philadelphia; Mr. EDWIN BIRCHALL, jun., Leeds; Mr. J. W. MASON, Hulme; A DOCTOR'S WIFE; Dr. MEYMOTT TIDY, London; Dr. EUSTACE SMITH, London; Mr. J. KNIGHT, Newcastle-under-Lyme; Dr. HENRY LAWSON, London; Dr. YELD, Sunderland; Dr. HANDFIELD JONES, London; Dr. ROGERS, London; Mr. MELUISH, Norwood; Dr. MOFFAT, Hawarden; Mr. A. W. KNOTT, Worcester; Mr. WILLIAM GREY, Sydney; Dr. FLORANCE, Christchurch, New Zealand; Mr. JABEZ HOGG, London; Dr. JAMES DICKSON, Oregon; Mr. T. APLIN MARSH, Fulham; THE SECRETARY OF WESTMINSTER HOSPITAL; Mr. J. E.

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Eddison, Leeds; Sir Henry Thompson, London; Mr. J. M. Morris, London; Dr. S. K. Cotter, Pietermaritsberg; Dr. J. Duff, Elgin; Dr. Bell Taylor, Nottingham; A Retired Schoolmistress; Dr. Spender, Bath; Mr. D. Hartley, Cheltenham; Messrs. Cama and Co., London; Mr. George Brown, London; Dr. Henry Thompson, London; Dr. J. M. Woodworth, Washington; Mr. Eastes, London; Mr. J. W. Groves, London; Mr. G. F. Reed, London; Mr. G. W. Joseph, Warrington; Dr. Connor, Detroit; Dr. J. Moore, Belfast; Juvenis; Mr. J. Chatto, London.

BOOKS RECEIVED—

Annual Report from the Registrar-General on the Vital Statistics of Queensland—Reminiscences of the Hull General Infirmary, by W. Shepherdson—Annual Report of the Staffordshire Asylum—Annual Report of the Glamorgan County Lunatic Asylum—Yellowlees on Insanity and Intemperance—Guy's Hospital Reports, vol. xix.—Clinique Médicale de l'Hôtel-Dieu de Rouen, par Professeur Leudet—Considérations sur le Siége, la Nature, les Causes de la Folie Paralytique, par le Dr. Charles Burlureaux—Du Délire des Actes dans la Paralysie Général, par le Dr. F. Darde—De l'Urée dans les Vomissements, par le Dr. A. Juventin—Théorie Physiologique de l'Hallucination, par le Dr. A. Ritti—Report of the Health of Sunderland, by Dr. Yeld—Wood on Therapeutics, Materia Medica, and Toxicology—Third Annual Report of the Board of Health of the Health Department of the City of New York—Annual Report of the Supervising Surgeon of Marine-Hospital Service of the United States for 1873—Stone's Epitome of Therapeutics—Eassie on Sanitary Arrangements for Dwellings.

PERIODICALS AND NEWSPAPERS RECEIVED—

Lancet—British Medical Journal—Medical Press and Circular—Nature—Pharmaceutical Journal—Food, Water, and Air—Indian Medical Gazette—Berliner Klinische Wochenschrift—La France Médicale—Allgemeine Wiener Medizinische Zeitung—Gazette Hebdomadaire—Gazette des Hôpitaux—Gazette Médicale—La Tribune Médicale—Bulletin de l'Académie de Médecine—Le Progrès Médical—Science Gossip—Popular Science Review—British Architect—L'Archives Générales de Médecine—Practitioner—Medical Temperance Journal—Canada Medical and Surgical Journal—Monthly Microscopical Journal—The Scotsman—The New York Druggist—Detroit Review of Medicine—North British Daily Mail—The Daily Chronicle and Clerkenwell News—Westminster Review.

APPOINTMENTS FOR THE WEEK.

April 11. *Saturday* (*this day*).

Operations at St. Bartholomew's, 1½ p.m.; King's College, 2 p.m.; Charing-cross, 2 p.m.; Royal Free, 9 a.m. and 2 p.m.; Hospital for Women, 2½ a.m.; Royal London Ophthalmic, 11 a.m.; Royal Westminster Ophthalmic, 1½ p.m.; St. Thomas's, 9½ a.m.

13. *Monday*.

Operations at the Metropolitan Free, 2 p.m.; St. Mark's Hospital for Diseases of the Rectum, 2 p.m.; St. Peter's Hospital for Stone, 3 p.m.; Royal London Ophthalmic, 11 a.m.; Royal Westminster Ophthalmic, 1½ p.m.

Medical Society of London, 8 p.m. Prof. E. Wilson, "On the Uses of Gorgon Balsam." Mr. Keene, "On a Recent Death from Bichloride of Methylene." Dr. Routh, "On certain Preparations of Phosphorus and their Action on the Economy." Mr. Wm. Adams, "On a Case of Strangulated Femoral Hernia reduced by Large Injections of Oil." Mr. Francis Mason will show a patient with Infecting Sore on Thigh with Secondary Eruption.

Odontological Society, 8 p.m. Communications by Messrs. Sewill, White, Coles, and Jas. Parkinson. Mr. Spence Bate, "On Transplanting and Replacing Teeth."

14. *Tuesday*.

Operations at Guy's, 1½ p.m.; Westminster, 2 p.m.; National Orthopædic, Great Portland-street, 2 p.m.; Royal London Ophthalmic, 11 a.m.; Royal Westminster Ophthalmic, 1½ p.m.; West London, 3 p.m.

Anthropological Institute, 8 p.m. Meeting.

Royal Institution, 3 p.m. Prof. Rutherford, "On the Nervous System."

Royal Medical and Chirurgical Society (Ballot, 7½ p.m.), 8½ p.m. Meeting.

15. *Wednesday*.

Operations at University College, 2 p.m.; St. Mary's, 1½ p.m.; Middlesex, 1 p.m.; London, 2 p.m.; St. Bartholomew's, 1½ p.m.; Great Northern, 2 p.m.; St. Thomas's, 1½ p.m.; Samaritan, 2½ p.m.; King's College (by Mr. Wood), 2 p.m.; Royal London Ophthalmic, 11 a.m.; Royal Westminster Ophthalmic, 1½ p.m.

16. *Thursday*.

Operations at St. George's, 1 p.m.; Central London Ophthalmic, 1 p.m.; Royal Orthopædic, 2 p.m.; University College, 2 p.m.; Royal London Ophthalmic, 11 a.m.; Royal Westminster Ophthalmic, 1½ p.m.

Harveian Society, 8 p.m. Mr. J. Keene, "On some Affections of the Naso-pharynx which give rise to Deafness."

Royal Institution, 3 p.m. Mr. W. Noel Hartley, "On the Atmosphere and its Relations to Life."

17. *Friday*.

Operations at Central London Ophthalmic, 2 p.m.; Royal London Ophthalmic, 11 a.m.; South London Ophthalmic, 2 p.m.; Royal Westminster Ophthalmic, 1½ p.m.; St. George's (ophthalmic operations), 1½ p.m.

[Medical Microscopical Society, 8 p.m. Dr. W. S. Greenfield, "On Diphtheria.

...rbeck Union.—Peter ... ...Eng., L.S.A., to the Swanage District (eeting, 8 p.m.), 9 p.m. Mr. ...oodbridge Union.—Edmund Fitz-Garret the Composition of Colours by ..., L.S.A., to the Walton District.

VITAL STATISTICS OF LONDON.

Week ending Saturday, April 4.

BIRTHS.

Births of Boys, 1119; Girls, 967; Total, 2086.
Average of 10 corresponding years 1864-73, 2297·8.

DEATHS.

	Males.	Females.	Total.
Deaths during the week	671	678	1349
Average of the ten years 1864-73	806·6	783·2	1589·8
Average corrected to increased population	...	...	1749
Deaths of people aged 80 and upwards	...	...	68

DEATHS IN SUB-DISTRICTS FROM EPIDEMICS.

	Population, 1871.	Small-pox.	Measles.	Scarlet Fever.	Diphtheria.	Whooping-cough.	Typhus.	Enteric (or Typhoid) Fever.	Simple continued Fever.	Diarrhœa.
West	561359	...	11	...	2	8	...	1	1	1
North	751729	...	5	1	1	6	1	3	2	2
Central ...	334369	...	10	1	...	4	...	...	...	3
East	639111	...	14	8	2	16	...	4	1	2
South	967892	...	11	1	1	20	6	5	6	3
Total	3254260	...	51	11	6	54	7	13	10	11

METEOROLOGY.

From Observations at the Greenwich Observatory.

Mean height of barometer	29·535 in.
Mean temperature	48·1°
Highest point of thermometer	60·0°
Lowest point of thermometer	37·4°
Mean dew-point temperature	42·3°
General direction of wind	W.S.W. & S.W.
Whole amount of rain in the week	0·71 in.

BIRTHS and DEATHS Registered and METEOROLOGY during the Week ending Saturday, April 4, 1874, in the following large Towns :—

Boroughs, etc. (Municipal boundaries for all except London.)	Estimated Population to middle of the year 1874.*	Persons to an Acre. (1874.)	Births Registered during the week ending April 4.	Deaths Registered during the week ending April 4.	Temperature of Air (Fahr.) Highest during the Week.	Lowest during the Week.	Weekly Mean of Mean Daily Values.	Temp. of Air (Cent.) Weekly Mean of Mean Daily Values.	Rain Fall. In Inches.	In Centimetres.
London	3400701	45·1	2086	1349	60·0	37·4	48·1	8·94	0·71	1·80
Portsmouth ...	120436	26·8	75	42	...	...	...	...	...	...
Norwich	82257	11·0	51	30	59·0	34·0	47·5	8·61	0·22	0·56
Bristol	192889	43·3	125	78	...	...	...	...	...	...
Wolverhampton ...	70896	20·9	50	27	58·4	34·3	45·9	7·72	0·62	1·57
Birmingham ...	360892	43·0	238	163	60·0	35·6	47·1	8·39	0·90	2·29
Leicester	106202	33·2	78	40	61·2	35·0	47·9	8·83	0·50	1·27
Nottingham ...	90894	45·5	67	43	58·9	33·2	46·6	8·11	0·36	0·91
Liverpool	510640	98·0	351	249	57·2	36·0	45·7	7·61	0·48	1·23
Manchester	355339	82·8	237	206	64·3	32·3	47·7	8·72	0·73	1·85
Salford	133668	25·7	100	72	57·7	33·0	45·7	7·61	0·50	1·27
Oldham	86281	18·5	90	59	53·5	...	...	...	1·07	2·72
Bradford	163056	22·6	101	78	57·8	36·0	45·3	7·39	2·37	6·02
Leeds	278798	12·9	229	155	59·0	36·0	47·0	8·30	1·42	3·61
Sheffield	261029	13·3	170	113	59·0	36·5	47·1	8·39	0·87	2·21
Hull	130996	36·0	83	57	...	...	...	...	...	...
Sunderland ...	104378	31·6	71	55	...	...	...	...	...	...
Newcastle-on-Tyne	135437	25·2	148	74	...	...	...	...	...	...
Edinburgh	211691	47·8	151	103	...	...	...	...	...	...
Glasgow	508109	100·4	360	308	53·9	34·3	43·7	6·50	2·03	5·13
Dublin	314666	31·3	128	141	58·5	33·2	46·1	7·83	0·53	1·35
Total of 21 Towns in United Kingdm	7618655	36·6	5009	3442	64·3	32·3	46·5	8·05	0·95	2·41

At the Royal Observatory, Greenwich, the mean reading of the barometer last week was 29·56 in. The highest was 29·92 in. on Wednesday at noon, and the lowest 28·98 in. on Friday afternoon.

* The figures for the English and Scottish towns are the numbers enumerated in April, 1871, raised to the middle of 1874 by the addition of three years and a quarter's increase, calculated on the rate which prevailed between 1861 and 1871. The population of Dublin is taken as stationary at the number enumerated in April, 1871.

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ORIGINAL LECTURES.

ON THE MODE OF ACTION OF IODINE AND ITS PREPARATIONS.

By PROFESSOR SÉE.

In a former number (February 14) we published a portion of a lecture by Professor Sée on the Action of Iodine. In that part, the mode in which it reached the blood was mainly discussed; in the present, its effects after reaching that fluid are chiefly considered.

Chemistry has taught us nothing touching the action of iodine on the blood: it is neither plastifying nor liquefying; moreover, the blood is not the medium in which the principal phenomena take place. This liquid, according to Claude Bernard, is merely a medium in which the organs live. The corpuscles constitute all that is alive in the blood; and in designating the latter "liquid flesh" certain *savants* have given a definition more poetic than scientific. The interchanges of the gases introduced and expelled by respiration are entirely physical phenomena, which do not in any way prove that the blood is a living substance, excepting of course its corpuscular element. From this Professor Sée concludes that iodine does not act on the blood, or, if it does, its effects are difficult to be demonstrated—at least clinically.

Action on the Circulation.—The circulation is manifestly modified by the administration of iodine. The beats of the heart are accelerated, particularly if the pulse be calm; and this effect is produced, whatever be the dose employed. If the pulse is already frequent, it will not be accelerated to a remarkable degree. These facts have been brought to light by the regretted M. Kuss, of Strasburg, by whose death science has sustained a great loss; but in asserting that in giving the iodine in considerable quantity no untoward effect was produced, he did not explain the cause of this singularity. The explanation is found in the rapid elimination of the drug whilst the circulation of the blood is accelerated. M. Sée therefore concludes, with Puche, that in certain individuals enormous doses must be administered to produce the desired effect, instead of the small doses that are so timidly prescribed. In varying the dose of the iodide of potassium according to individual cases, we shall soon find out that the small dose of one gramme (about sixteen grains) a day produces as much an effect as that of three grammes. Here not only is the general circulation accelerated, but hyperæmia of all the organs takes place,—the skin is covered with papules, erythema, acneform pimples; sometimes the skin and subjacent cellular tissue are congested and become the seat of a sort of œdema, which is principally visible in the eyelids; the conjunctiva is injected, which may be followed by ophthalmia; the mucous membrane of the throat is also affected; the pharynx and tongue are swollen, as also are the mucous membrane of the larynx and probably that of the bronchi, followed in some cases by dyspnœa and catarrh; even the expectoration may be sanguinolent; the mucous membrane of the stomach is excited; the functions of the uterus are modified, or rather exaggerated, resulting in menorrhagia—hence the utility of iodine in amenorrhœa and dysmenorrhœa. These divers phenomena of congestion have been described as the commencement of iodism; but M. Sée looks upon them as the physiological effects of the drug, and that they are not particularly due to large doses, in proof of which he states that after having swallowed two grains of the iodide of potassium, and even less, all the symptoms of iodism may be observed; and this dose is certainly not toxic. The phenomena of iodism under these circumstances are temporary, but the patient should always be warned of their possible occurrence. If, on the other hand, large doses are at once administered, we shall not have iodism, but poisoning by iodine. Such cases are not numerous, but some are known to have occurred, and among others the death of a young German lady, who was treated and killed by her countryman Dr. Rose. This practitioner injected iodine into an ovarian cyst of which the patient was the subject; this was followed by serious consequences. He described minutely, and by the hour, the tragic scene that was taking place. As soon as the injection was practised, a convulsive spasm of the arteries followed; the pulse, hardly perceptible, was very frequent; the heart beat violently; the patient became cyanosed and felt a sensation of intense local cold. The spasm lasted sixty hours, after which the patient became red, the arteries were relaxed, the heart beat feebly, and death occurred on the fourth day. There was no increase of temperature, from which it may be inferred that there was no iodic fever as affirmed by Dr. Rose. Such are the symptoms of poisoning by iodine, which, it may be seen, do not resemble those previously described.

Action on Innervation.—Whatsoever the dose of iodine absorbed, the patient experiences frontal headache and even well marked neuralgia of the trifacial nerve. The cephalalgia is due to coryza, the neuralgia of the trifacial nerve to congestion of the sinuses. But besides these nervous phenomena there are others which are known under the name of iodic intoxication, characterised by giddiness, hallucinations, trembling; these are disturbances of the circulation. During the giddiness there is contraction of the arteries, as in the case of Dr. Rose's young patient; this is already the commencement of poisoning. According to M. Sée, the nervous system is at first modified only in its circulation; but when strong doses of the iodine are administered, short of poisoning, the nervous substance is affected. From this it may be inferred that iodine indirectly favours regeneration, the re-constitution of the tissues, particularly the nervous elements.

Elimination of Iodine.—Iodine is easily eliminated, and appears in the urine, the saliva, and that soon after it has been ingested; but traces of the drug are still found in these secretions several weeks after the patient had discontinued it. In its elimination, iodine modifies the textures of the organs through which it passes—kidneys, skin, mucous membranes. But its action is complex, and it is very possible that the local hyperæmiæ it determines are only due to the passage of the iodine; and, in fact, these congestions are almost distinct from the modifications of the general circulation. A patient, for instance, takes a dose of iodide of potassium at ten o'clock, at eleven his conjunctivæ are congested and the lachrymal secretion is increased. It may be that this congestion is the effect of the passage of the iodine, which is deposited on the mucous surface, and there produces irritation caused by its direct application; we have therefore to consider the direct action of iodine on mucous membranes, and another action, more general and more powerful, which sometimes produces deep inflammation. This can be shown for the mucous membrane of the stomach. If two individuals take iodide of potassium, one may feel none the worse, whereas the other loses his appetite, has a metallic taste in his mouth, and falls off in flesh. Why should there be this difference? The simple contact of the iodine causes an increased secretion of the gastric juice. The iodine is absorbed, then eliminated by the stomach; and according as the latter is more or less deeply attacked, the appetite will be more or less affected. Unfortunately, one cannot foresee how it will act, but we should not forget that in small doses iodine is often appetitive, because it increases the secretion of the gastric juice. We should, however, remember that the elimination in the stomach takes place through the peptic glands, and that in its passage the iodine destroys a certain number of these latter. This action of elimination may produce evil consequences, and the greatest circumspection is therefore necessary in the employment of this heroic but dangerous remedy.

The iodide of potassium has been prescribed to stop the vomiting of pregnant women, but for this it is not equal to alcohol nor to the bromide of potassium.

The iodide of potassium has a certain action on the kidneys; it may produce nephritis, destroy the tubuli uriniferi, and produce albumen in the urine; but all metals do this, so we cannot make a special complaint against iodine in this respect. This leads us to the study of the composition of the urine in individuals who take iodine, which will enable us to give the drug its proper place in the therapeutic *cadre*. If the effete matter of the organism, or the urea, be diminished during the use of iodine, it is because this latter is a substance that prevents the waste of the tissues (*medicament d'épargne*). Such was the conclusion arrived at by M. Rabuteau, who, in his experiments, found a diminution of urea; but it may be objected that these experiments are not absolutely rigorous. M. Rabuteau subjected himself to a certain diet for five days; he measured the quantity of urea which he excreted each day, and found twenty-eight grammes as the mean; on the fifth day he took iodine, and found no more than twenty-four grammes of urea in his urine. The experiment ought to have been more precise. M. Rabuteau ought not only to have weighed the ingesta, but he ought to have ascertained the quantity of nitrogen; he should then have measured the

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quantity of nitrogen eliminated by the different outlets. When the balance between the nitrogen absorbed and that eliminated is properly ascertained, it is only then that one can fairly estimate the results produced by a particular drug or any other substance. This is what was done by M. Beck in the case of a syphilitic patient; the results of this observation were negative, and the deduction was that iodine does not act on the composition and decomposition of the tissues. But M. Bouchard declares, on the contrary, that, according to his own personal experience, iodine increases the quantity of urea excreted daily, particularly in diabetics. The natural conclusion is that iodine is not a destructor of the economy. Professor Sée protests against the conclusions of M. Bouchard, and brings clinical proofs against the arguments of the latter gentleman. Diabetics, continued the Professor, do excrete more urea than a person in health. According to the learned Professor, it was not the iodine absorbed that manufactured the excess of urea; it found it in the economy, and it did no more than eliminate the urea, just in the same way that it draws away all that it meets with in its course. If in syphilitics it meets with mercury, the iodine favours its expulsion in forming an iodo-mercuro-albuminate; if, on the other hand, the mercury is combined with the blood, muscles, bones, or nervous tissue, the iodine, in regenerating all the vitiated molecules, expels the mercury indirectly by the formation of new elements. The following is a summary of the therapeutic applications of iodine:—

It is employed to eliminate all the poisons which may impregnate the economy—syphilis, mercury; it has also been employed as an eliminative in gilders' and lead poisoning, and in arsenicophage.

The mucous and serous membranes are modified by iodine, and it is given in asthma, albuminuria, ascites, pleurisy, etc. It is employed as a "dissolvant" in glandular swellings, and it produces excellent effects in goître; but it also exercises a certain influence on the breasts and testicles, which it atrophies. It is useful in a great number of chronic affections by dissolving certain products which it eliminates; thus it is employed in diabetes, scrofula, syphilis, etc.

In fine, iodine is a most useful drug, but it is a two-edged instrument, difficult to deal with. It is a local "atrophiant"; it has no ill effects on the general health; it is a "*revivificateur*," like oxygen.

ORIGINAL COMMUNICATIONS.

TWO CASES OF HYDATID TUMOUR IN THE ABDOMEN.

By C. HANDFIELD JONES, M.B. Cantab., F.R.S.

Case 1.—*Two Abdominal Tumours—Disappearance of that in the Liver—Suppuration of that in or near the Spleen—Operations—Removal of Cyst—Recovery.*

Alfred T. D., aged 10, was admitted November 11, 1870. Had not been very well for about eight months; but nothing was noticed at the abdomen until he was kicked three weeks previously in the epigastric region. No bruising was produced by the kick, but he had a good deal of pain in the part for two weeks; this has now ceased. He had vomiting just after the kick, but not since. Had measles seven years ago, but no fever of any kind. Is not fond of raw meat. Does not feel bodily ill. His abdomen just below the xiphoid and the adjacent right ribs is tumid, and bulging above the level of the chest-wall. This tumour is painless to pressure, tolerably circumscribed, extends up under the right ribs, is evidently situated in the liver, and descends much during inspiration. Circumference of body over most prominent part of tumour is twenty-four inches and a half. Left flank and side resonant, but the left hypochondrium is dull, and a tumour is felt there which seems to be continuous with the liver. Lungs and heart are sound. Is rather anæmic. Pulse 87, weak. Urine not albuminous. He remained in the Hospital only some ten or fourteen days, during which he ate, drank, and slept well. Some steel wine was given, and some biniodide of mercury ointment applied to the tumour; but no change was produced. The diagnosis made was of hydatid tumour; but as it occasioned so little inconvenience, and the general health was so good, operative interference was postponed. Nothing was seen of him after this for nearly three years, one of which he spent in the Children's Hospital, Great Ormond-street. In this and some other hospital operative measures had been employed.

He was readmitted into St. Mary's, September 22, 1873. For four or five days he had suffered pain at the left side of chest and lower part of left side of abdomen; the pain was increased on pressure and on inspiration. Tongue clean; pulse 84, steady. As he lay on his back there was a distinct swelling in the left hypochondrium. There was dulness commencing in the sixth left space, extending forwards to the median line, and down to the epigastric bulging, which was very tender to the touch. Two days later it was noted that the right lobe of the liver was not enlarged, but that the left, which appeared to be the seat of the swelling, was considerably, and presented a well-marked hard edge below. The swelling extended to the right as far as one inch beyond the median line, and to the left about three inches, or as far as to the vertical line of the nipple. All the left side of the abdomen was dull, and there was a considerable ill-defined mass under the left ribs which did not extend quite up to the mass occupying the epigastrium. He cried with pain on sitting up. The breathing was rather harsh, but tolerably free in both lower and middle backs. He took ordinary diet with porter, and slept well. Temperature was 104°, and pulse 112, weak. Eight leeches were applied to the tender swelling, and sulphate of magnesia, with vin. ipecac. given quater die. Diet simple.

September 26.—Pulse 108; temperature 104°. Six more leeches were applied.

On the 29th the temperature was 102°; the pulse 80; the epigastric tumour was less marked, its edge less prominent. The swelling in the left hypochondrium extended quite down to the lower border of the umbilicus, and to within one inch and a half of the median line; the dulness of this mass extended quite round to the left back. Blister with mercurial dressing was applied to the left side of the upper abdomen.

October 2.—Temperature 102·6°; pulse 110. State of abdomen about the same. K. Br. gr. viij., tinct. kamalæ ℥xx., aq. ʒj., ter die.

On the 4th, the swelling in the region of the spleen was punctured with an aspirator trocar, but only a little turbid fluid was withdrawn, containing nothing definite. The puncture caused much pain, and since then there has been much increased swelling and much tenderness of the left side of the abdomen. Temperature 100·2°; pulse 92; respirations 40.

9th.—Left side of abdomen much swollen and bulged, and very tender; he seemed better in himself; had some diarrhœa. Temperature 99·7°; pulse 90. Pulv. Doveri gr. v. ter die.

13th.—Swelling of abdomen very large, extending down to umbilicus and beyond the median line at its lower part. At about the middle of the tumour there was a space some two inches in diameter where fluctuation was felt. An exploratory puncture drew off serum turbid with pyoid corpuscles, and an incision gave exit to some distinct masses of pus and blood. No discharge was established from the incision as had been expected, and the size of the tumour did not diminish.

On the 18th, temperature was 99·3°; pulse 108; he looked pallid and feeble. Much fluctuation was felt about the gaping incision, but there was no discharge. With the aspirator the tumour was tapped, and sixty ounces of offensive pus containing small-sized hydatids were drawn off. After this the abdomen collapsed very much. Carbolic lotion (1 to 50) was injected into the sac afterwards.

On the 27th the tapping was repeated, as the abscess had filled again, and thirty-eight ounces of pus were withdrawn. Temperature 100·7°; pulse 120.

November 4.—Tapping repeated, and twenty-four ounces drawn off; carbolic lotion (1 to 20) injected afterwards. Temperature 102·2°; pulse 120.

13th.—Temperature 104°.

The following day a considerable discharge of offensive pus (about a pint) occurred, and the size of the swelling was much diminished. Temperature 99·3°; pulse 102.

19th.—Pulse 90, stronger; temperature 98·6°. A drainage-tube was passed through the sac from the orifice in the left side through the umbilicus, and left *in situ*.

The following day the temperature was 99·7°, the pulse 126. Quiniæ disulph. gr. ij., liq. ferri muriat. ℥xv., aq. ʒj., ter die. Port increased from three ounces (ordered on October 16) to six ounces.

On the 21st, as it was clear that the drainage-tube did not fulfil the purpose for which it was introduced (of emptying the abscess), the incision on the left side was enlarged a good deal by Mr. James Lane, and the cavity washed out completely,

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much foul pus and remains of hydatids (including, apparently, the mother sac) being removed.

From this date he improved steadily. The cavity of the abscess was frequently injected with carbolic lotion; the discharge diminished very much in quantity, became thin and non-offensive; and the sac shrunk so much that by December 8 the dulness area was reduced to a narrow tract extending from the orifice in the left hypochondrium to the umbilicus.

On December 17 he was fast gaining flesh. Since his dismissal I have seen him once or twice. He remains in good condition, but a little serous oozing goes on from the orifice, which has not yet closed.

Remarks.—The chief lesson read to us by this case is plain—viz., that when an hydatid cyst has once suppurated, it is most desirable to clear out its contents completely as soon as may be. Had I done it earlier, I might have saved my patient three or four weeks of suffering, fever, and exhausting discharge. In a case recorded by Boinet (*vide* "Sydenham Society's Year-book," 1864, p. 328), very similar treatment was found essential. The dead hydatids keep up suppurative inflammation, which ceases on their removal. What became of the tumour in the left lobe of the liver, which was so apparent on the first occasion, and also when he was readmitted, I am not altogether certain. It was certainly inflamed, and, as it lessened notably in size after being twice leeched, it perhaps underwent degeneration and shrinking. The puncture made on October 4 seemed to have the effect of causing the splenic cyst to inflame and suppurate, or at any rate gave a great impulse to the inflammatory process. This was a serious aggravation of peril for a time, but in its ultimate issue was not to be regretted.

Case 2.—Hydatid Tumour in Liver—Paracentesis and Electrolysis—Cure.

M. M., female, aged 14, servant, admitted on November 21, 1873. She complains of pain in the right hypochondrium, extending to the epigastrium. In the latter situation is a hard, almost immovable swelling, extending from the xiphoid cartilage to within one inch of the umbilicus. It descends notably in deep inspiration. There is tenderness on pressure, which is apparently greater to the right of the swelling. The tumour is about three or four inches in diameter. On percussion a "watch-spring" thrill is distinctly felt. The tumour is said to get larger while walking than when she is lying down. Girth round abdomen over tumour, thirty-two inches. There is little or no tenderness over the spleen now, although the patient states that about six months ago the swelling and tenderness were altogether in that region. The swelling appeared first about two years ago. Patient often feels sick, but does not often vomit. No pain after eating. Pulse 88, of good force; appetite good; sleeps well. Tinct. kamalæ ʒ ss., inf. cascarillæ ℥ss., ter die. A saturated solution of common salt to be continually applied on a compress to the tumour.

November 22.—Fremitus on percussing tumour very indistinct.

24th.—Urine of rather dark colour, specific gravity 1020, acid, not albuminous.

26th.—Pain felt on percussing the tumour referred to right hypochondriac region; it is described as of pinching character.

December 8.—Tumour of about same size; gives the hydatid fremitus distinctly. Pt. c. mist. tinct. kamalæ ʒj. ad dosem.

15th.—Tumour extremely hard; thrill less perceptible.

17th.—Hydatid fremitus exquisitely distinct to-day.

On the 18th and 19th I could detect no fremitus on repeated trials.

20th.—Yesterday, after the abdomen had been firmly bandaged over its lower two-thirds, and chloroform administered, a fine trocar was introduced into the tumour, and about two ounces of clear watery fluid drawn off; after which a needle was passed in, and a galvanic current from eighteen well-working cells of Stöhrer's battery made to traverse the tumour, the negative pole being in the sac, and the positive applied to different parts of the adjacent surface, so that the electricity acted on different parts of the contents of the sac. The current was continued about five minutes. The tumour collapsed very much after the tapping, but is larger again to-day, and tender; the rest of the abdomen is not tender. After the operation she had at night opii gr. j., which was repeated after a while, and she slept after 2 a.m. Pulse 102, excited; temperature 101·1°.

22nd.—Doing well, taking opii gr. ss. ter die. Temperature 99·8°; pulse 100. Tumour about as large as before the tapping, but not so tense. Shivers a little. No pain.

26th.—Pulse 90. Very little tenderness about tumour. Is hungry.

January 1, 1874.—Ordinary diet, pudding, ale.

5th.—Pulse small, 80; temperature 98°. On getting up four days ago, feeling then quite well, considerable pain came on in the tumour; since then she has lost her appetite, and had nausea.

12th.—The upper abdomen appears full and prominent, apparently from enlargement of the left lobe of the liver, the lower edge of which can be traced and felt an inch above the umbilicus. The tumour can hardly be distinguished. Takes nourishment well. Pulse 92. Urine light-coloured. Poultice, which has been applied to upper abdomen since December 20, now omitted.

19th.—Tumour is now almost quite gone, but the left lobe of liver is still large. She gets about well; went out soon after.

Remarks.—This case presented no difficulty in diagnosis. That rare sign, the "hydatid fremitus," was well marked and pathognomonic; but it was very remarkable that it was so inconstant—one day readily demonstrable, the next not to be detected. This occurred twice. From hence we must draw the inference that the absence of this sign may depend not only on alterations in the tumour itself, but, apart from these, on some differing relations of the tumour to adjacent parts, or some alteration, probably, of position. I do not know that this has been observed before. I abstained from operating for some time, doubting whether, as the tumour was so hard and caused so little inconvenience, it was desirable to interfere. The hardness suggested the idea that the tumour was thick-walled, and perhaps had a calcareous shell. This proved erroneous, for after the fluid was withdrawn the sac completely collapsed. While it is quite true on the one hand that hydatid tumours often undergo atrophic change spontaneously, and that, therefore, if a tumour was not growing fast or causing inconvenience, it might appear better to wait than to incur the slight risk involved in paracentesis, yet on the other is to be placed the danger of rupture from accidental violence, which would prove speedily fatal. Whenever, then, we may say, an hydatid cyst lies in an exposed situation, an early operation is to be recommended; and this is the opinion held by Frerichs and Murchison. Generally it will be well, I think, to perform paracentesis and electrolysis at the same sitting. I found so much difficulty in forcing the insulated needle through this patient's skin, and the insulating varnish was so much frayed thereby, that for the future I think I shall use a piece of thin copper wire varnished except near its end, which can be easily passed through the trocar, remaining *in situ* after the evacuation of the fluid. This will, I hope, convey electricity sufficient to contribute materially to the destruction of the secondary hydatids, though it may be desirable to maintain the current for a longer period than was done in Dr. Fagge's cases. By shifting the position of the positive pole to different parts of the surface, the current can be made to traverse different parts of the sac. Even if less efficacious, it will be an advantage in this procedure to avoid making more than one puncture, and to combine two methods in one operation.

Neither of these cases, it may be remarked, affords any support to the idea that drugs have any effect on these tumours.

THE LEPER HOSPITAL, MADRAS,

WITH AN ACCOUNT OF THE LATEST REMEDIES PROPOSED FOR LEPROSY, AND THEIR RESULTS.

By W. J. VAN SOMEREN,
Surgeon-Major, First District, Madras.

(*Concluded from page 371.*)

VIII.—Treatment of Leprosy.

Before proceeding to the consideration of the therapeutics of leprosy, it may be as well to advert briefly to its pathology. In the *Madras Quarterly Journal of Medical Science*, published on October 1, 1861, there is an article by the writer of this narrative, from which he now quotes:—

"In view of the pathology of leprosy, as this has been elucidated by the researches of MM. Boeck and Danielssen,

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it is impossible to resist the conviction that errors in diet and regimen, as well as other violations of the general laws of health, have much to do with the production of this formidable disorder. The subject is an interesting one, having an important practical bearing on treatment, and it will not therefore be out of place to devote a few lines to its consideration.

"That this is a blood disease, appears to be fully made out by the above-named investigators. The disease, however, consists not in the circulation of a toxic element, such as the potential poison of any zymotic disease, or even such a *materies morbi* as lithic acid or urea, but the normal proportions of the principal constituents of the blood are altered, and probably some of these constituents are ill elaborated. For example, the proportion of albuminous material is largely increased, while that of the red corpuscles is notably diminished; and as the latter are formed at the expense of the former, it is difficult to reconcile this diminution of the red discs with a superabundance of well-elaborated albumen in the vital fluid. It is well known that, in certain vessels of the body, this nitrogenous compound exists in the crude and imperfect form of *albuminose*, and the idea has been broached by pathologists that, when found in the renal excretion, its presence is due to the fact that in this ill-elaborated form it easily transudes the tissues of the kidneys. If the suggestion be true, the facile escape of albuminous matter into the cutaneous and mucous tissues, so as to form the tubercular elevations characteristic of tubercular leprosy, and its exudation into the serous tissue of the arachnoid membrane covering the spinal cord, in the anæsthetic form of the disease, are explicable in the same way, and our therapeutics should be directed towards the removal of the *dyscrasia* which characterises the blood. But what are the conditions calculated to develope this *dyscrasia?* Poverty with all its attendant deprivations and hardships, food defective in quality rather than quantity, overcrowding, impure air, want of cleanliness—indeed, everything that is a violation of hygienic laws,—will contribute to such a depravation of the circulating fluid; and this view of the etiology of leprosy is borne out by the fact that it appears to be a disease principally affecting people in a certain, and that not an advanced, stage of civilisation. In great Britain, for instance, it was so common between the twelfth and sixteenth centuries that there were no less than 111 lazarettoes in the country during that period; but as the people, under a flourishing commerce and an advancing intelligence, became more wealthy and more wise, the disease became less and less prevalent, and at the present time there is not a single leper hospital throughout the length and breadth of the land. When the position of people in this country has become similarly elevated, it may reasonably be hoped that they also will enjoy an equal immunity from the disease; but in the meanwhile our knowledge of its causation and its pathology generally points to a very different course of treatment from that which used to be in vogue, and is even still practised by many. The hygienic measures which are indicated as the best prophylactics against the development of leprosy must also play an important part in its therapeutics, and, instead of running the gauntlet in the true spirit of empiricism through the catalogue of so-called specifics in its treatment, we should base our practice on the plain principles of a correct pathology."

Latterly, leprosy has been described rather as a *diathesis* than a disease, and the writer's experience leads him to adopt this view. If regard be had to what is known of its causation, its hereditariness, the variety of its phenomena, its essentially chronic character, the amenability of some of its manifestations to treatment, and the impossibility of eradicating the specific taint from the system, it is difficult to maintain any other opinion about its pathology. In perfect consonance with these views is the following extract on the subject of treatment, from the article already referred to:—

"Good food, pure air, a rigid attention to cleanliness, and a certain amount of bodily exercise, certainly contribute more than anything else to ameliorate the health of lepers, and if the materia medica be indented on, it should be for such medicines as are calculated to improve the quality of the blood. Chalybeates, the preparations of iron and iodine, and cod-liver oil, promise the most benefit as internal remedies; while anointing the dry and fissured skin with emollient oils, the use of sulphur-vapour baths, and the application of calamine cerate, astringent lotions, water dressing, or cataplasms to sores, according to the circumstances of each case, seem the external measures specially indicated. Reference has been made to the intercurrent attacks of other diseases, such as dysentery, diarrhœa, albuminuria, and pulmonary affections, to which these poor invalids are more or less liable, and which demand other and appropriate treatment; but, looking to the abnormal condition of these patients, it is scarcely necessary to insist on the cautious and sparing employment of such an atonic and depressing drug as mercury, and one also which operates so powerfully in reducing the proportion of red corpuscles in the blood."

Subsequent observation has not altered or modified the writer's sentiments on this subject, although he has made it a rule to put in force any and every course of treatment recommended to his attention by competent authorities. His predecessors in charge of this institution had given a fair trial to several vaunted specifics in the disease, but not a single one of them was found a real remedy. Of their number the following were the most noteworthy:—

1. The Asiatic pill, consisting of protoxide of arsenic gr. $\frac{1}{10}$th, powdered root of *Calotropis gigantea* gr. ijss., and some black pepper. 2. Fowler's solution. 3. Iodide of arsenic. 4. Donovan's solution. 5. *Hydrocotyle nigra*. 6. Chowl Moogree oil. This is positively stated to be the active ingredient of the secret preparation lauded by Dr. Bhan Dajee, of Bombay, as the cure *par excellence* for leprosy. But the *Hydrocotyle Asiatica* has been as positively asserted by a scientific member of the Bombay Civil Service to the writer, as the essential and really therapeutic element of the composition in question.

Dr. Paul, the present able Professor of Surgery of the Madras Medical College, and formerly the medical officer of this hospital, wrote in 1857 to this effect:—

"In 1855 the therapeutic virtues of the Hydrocotyle and Chowl Moogree received a fair trial at the hands of Dr. Porteous, and they were found to produce no amelioration whatever of the disease. This year no specific has been exhibited, and the patients have had little medicine beyond an occasional purgative, or such medicines as were called for in intercurrent inflammatory attacks. In a few, however, I should state, Donovan's solution, in small doses, was given for long periods, but I cannot say with marked or material benefit. The chief benefit derived by the inmates of the institution are those arising from cleanliness, which, with good and regular food, has a marked influence on the disease. Meanwhile, objects in every degree of loathsome wretchedness are admitted, covered with, or rather encrusted in, filth; indeed, many have not washed for years, under the belief that ablution aggravates the disease, but after the plentiful use of soap and cold water daily for a time, their sores heal, their skin gets more healthy, and they even gain flesh. Although their present condition is thus rendered more bearable, the progress of the disease is in no way arrested."

Then Dr. Mudge, who followed Dr. Paul, "can confirm the previous statements of temporary benefit derived from cleanliness and daily ablution, with good diet, and attention to the regularity of the secretions; but beyond this remedial measures are of no avail."

Soon after the writer's return from England in 1871, he was induced to use the inunction of carbolised oil (a) all over the body and extremities of lepers. The result of that experiment is given in his annual report for the year 1871, in the following words: (b)—"Further experience of the means confirms the belief that, though decidedly beneficial in some cases in reducing the tubercles which characterise lepra tuberculata, it is not curative of the disease itself. The leprous taint continues, and betrays itself in other manifestations, proving that 'the life of the blood is still touched corruptibly.' I have also tried the treatment recommended by Dr. Tilbury Fox—to wit, the exhibition of quinine with occasional purgatives; but supervention of dysentery in almost all the cases in which the method of treatment was adopted, compelled me ere long to discontinue it. Latterly I have been using the phosphate of lime, which was brought to my notice as a dietetic salt that had been found useful on the western coast in leprosy. Hitherto it certainly has seemed useful in some cases in removing some of the symptoms of the disease, but

(a) To hope for or expect the cure of such a condition as leprosy by any application to the skin will doubtless appear diametrically opposed to the popular saw that "what is bred in the bones cannot be got out of the flesh"; but, as the phenomena of leprosy are apparent chiefly on the cutaneous surface in the first instance, it was not unreasonable to expect improvement of these phenomena by suitable applications to that surface. More than this was not looked for, and what was looked for has been to some degree obtained.

(b) This conclusion is based on recorded observations.

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I feel it necessary to suspend forming any definite conclusions on the subject for the present."

In his annual report for 1872 he wrote thus:—"In my last report I alluded to a then pending inquiry into the use of the phosphate of lime as a therapeutic in leprosy. I am sorry to say that the records of those cases in which the salt was exhibited for months and months together do not justify me in regarding it as possessing any remedial power or action in this dire disease."

"I am now carrying out, as far as I can, the means recommended by Dr. Beauperthuy for the treatment of leprosy. The present native dietary is unfavourable for making native lepers the subjects of that treatment. My observations have, therefore, been limited to four East Indians, three of whom presented the tubercular, and the fourth the anæsthetic, form of the malady. I do not think it can be questioned that the oil of cashew-nut acts as a discutient of the tubercles when applied to their surface; but whether it does more than this is very questionable. Certainly its application has not reduced anæsthesia in the only patient, with the anæsthetic form of the disease, on whom it has been used."

Then in the report for 1873 it is thus written:—

"In my last report allusion was made to a trial of Dr. Beauperthuy's treatment, which was then in progress. The subsequent improvement of the native dietary enabled me to extend the experiment to native lepers. I can speak most positively to the discussion of tubercles by the *oil of cashew-nut*, but regret to say that there is a manifest disposition to their recurrence, most clearly proving that the treatment, however well calculated to improve the appearance of the patients temporarily, by removal of one of the manifestations of the malady, does not eradicate the leprous taint from the system."

"The *oil of cashew-nut*, however, is now regarded as a very useful and essential article of the Pharmacopœia in this institution."

Latterly, experiments have been made with *carbolic acid vapour*, which has been put forward as a remedy for leprosy. The instructions forwarded by the Surgeon-General for putting this remedy into force were carried out until exhaustion of the supply of carbolic acid in store. Eight patients were subjected to the therapeutic course recommended, but the results thus far are not satisfactory.

The *Gurjun oil* (*Balsamum dipterocarpi*) comes highly recommended from the Andamans by an acute and accurate observer, Dr. Dougal, as a therapeutic in leprosy. A series of experiments is about to be initiated in this institution to test its value; the results will be duly communicated to the *Medical Times and Gazette*.

In concluding this narrative, the writer is constrained to express the hope that this Lazaretto may yet expand and develope into an extensive hospital for skin diseases generally, and form the sole charge of the medical officer appointed to it. The dark skin of the people of this country so materially modifies, and indeed alters, the appearances of cutaneous affections as to render them almost a *terra incognita*. A man like Erasmus Wilson or Tilbury Fox is needed here to explore the unknown land. He can, however, only do so successfully by the concentration of his attention, efforts, and energies on this one subject. To hamper him with other duties would insure perfect failure. And it would be a huge boon to the public, and consequently both a legitimate and a beneficial application of public funds, to institute in Madras a hospital like the Hôpital St. Louis of Paris.

THE *Mongol*, one of the new Californian line of steamers, arrived at Port Chalmers, New Zealand, on February 13. She left England with 340 passengers. No less than sixteen deaths—with one exception of children—occurred on the voyage. The diseases were scarlet fever, bronchitis, diarrhœa, measles, and scrofula.

DEATHS FROM SUFFOCATION.—An inquest was held last week as to the cause of the deaths of John Pollard and his wife, in Cumberland-road, Bristol. The verdict of the jury after a post-mortem examination was to the effect that they died through inhaling poisonous gas engendered by a paraffin oil lamp that was left burning in the bedroom, which was small and close, the only outlet for air being through a diminutive fireplace, the opening to which was lower than the bed the deceased occupied. The medical evidence showed that the combustion of the oil called paraffin produces hydrocarbons, in which flame will live and life will not.

REPORTS OF HOSPITAL PRACTICE IN MEDICINE AND SURGERY.

GUY'S HOSPITAL.

CASES UNDER THE CARE OF MR. COOPER FORSTER.

THE volume of the *Guy's Hospital Reports* which has just appeared contains the records of a large number of cases which have been treated in the wards of the hospital by different members of the staff. It will not detract from the interest they may contain for the readers of these columns to know that they have been published elsewhere, while a notice of some few of them will serve to direct attention to the volume in which they are reported. Under Mr. Cooper Forster's name the notes of fifty-three (out of a total number of nearly 400) cases are given.

Case 1 is that of a married woman, aged 40, who was admitted with *Arthritis of the Wrist, Ankle, and Temporo-Maxillary Joints after Acute Rheumatism* seven weeks previously. She was discharged in three weeks much improved. Mr. Forster remarks that the diagnosis in this case was difficult between pyæmia and rheumatism, except that pyæmia of the joints rarely occurs at the age of forty as an idiopathic disease. It does so, however, sometimes, for in the post-mortem-room joints full of pus may be observed without any external wound. From its presence in a surgical ward, from the number of joints affected, from the absence of the general symptoms of rheumatism, and the intensity and non-metastatic character of the disease, one was almost disposed to call this case one of pyæmia, but the rapid recovery soon cleared up all doubts. What is called rheumatic synovitis, though frequently the termination of acute rheumatism, is also sometimes the commencement of serious joint disease. Too much caution cannot be observed in ascertaining the time when the rheumatic character terminates and the local joint disease commences, so that appropriate local remedies may be employed.

In *Case* 4 there is a point of practical interest to which Mr. Forster draws attention. It is one of *Cancer of the Omentum and Umbilicus simulating a Small Strangulated Umbilical Hernia*. A married woman, aged 66, the mother of four children, noticed four years previously a projection at the navel the size of her finger-tip. It gave no inconvenience. Fugitive diarrhœa, accompanied by pain, had troubled her for a month. Vomiting had existed one week before admission. Having drawn attention to the swelling, she was at once sent to the hospital for the relief of "strangulated umbilical hernia." This error was maintained until the condition was critically investigated in bed. The swelling was small in size, and gave no impulse on coughing. These were unlike the symptoms of umbilical hernia. There was, too, a thickening, continuous with the swelling, behind the abdominal parietes, which led to the opinion that the whole was an intra-abdominal mass—probably cancerous. The rule "When in doubt, operate," would have induced a superficial examiner to interfere, and thus to have committed an unfortunate and grave mistake.

Next follow the records of several cases of *Epithelioma*. In speaking of the galvanic écraseur, Mr. Forster says:—The advantages of this plan of treatment, for any or every form of cancer of the tongue, need only be tried or seen to be adopted. The thorough destruction of the surrounding tissues beyond the line of the écraseur, and therefore of removal, is very completely effected. The difficulty of application is a great obstacle to its general adoption. It must be made more portable, and less expensive. In its application a necessary precaution is, not to have the wire too hot, otherwise it cuts through the tissues so rapidly that a knife might as well be used; the bleeding is quite as copious, since the blood has not had time to coagulate, and the wire has run through the tissues, and destroyed without sealing them. The wire should be kept steadily at no more than a dull red heat, and the tissues thus slowly divided.

In amputation of the penis with the galvanic écraseur there is this disadvantage: the mucous membrane of the urethra cannot be left sufficiently long to stitch it to the skin—a practice which cannot be insisted on too strongly for the comfort of the patient.

The occurrence of epithelioma with phimosis suggests the desirability of circumcision where the patient is the subject

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of congenital phimosis. Few cases of epithelioma of the penis are seen which do not include this condition.

Case 22 will be read with interest; it is thus described: *Partial Hemiplegia and Convulsions four months after Injury to Head—Trephining—Recovery.* A temperate man, aged 39, who had never had syphilis, received a blow on the top of his head four months before admission, which stunned him for a short time. Pain in the head subsequently troubled him; and intense drowsiness, followed by a fit, occurred on the day prior to admission. He had numbness and weakness in the left forearm and right leg on the day of admission (April 24), and fits recurred with increasing frequency up to May 1, on which day he had four or five fits every hour. He was trephined on the right of the median line, on a level with the mastoid process (the spot, we presume, on which the blow had fallen), and no fits occurred afterwards. The bone was very dense and thick, and was evidently the seat of ostéitis. The good result of the trephining presumably was brought about by the relief of tension. He never thoroughly recovered the use of his leg.

The notes of seven cases of *Hernia* which came under Mr. Forster's immediate notice are recorded, and although there is nothing in the reports requiring special notice, the appended remarks by the author are of practical importance, he says:—Notwithstanding all that has been said and written of late with respect to the propriety of early operation if other measures fail, the ill consequences of delay are often witnessed. One of these seven cases had remained unrelieved for fourteen days, another for six days, and a third for three days, before being sent to the hospital. In all, violent taxis had been applied, and in one so severely that the marks of the nails were visible on the skin. It would seem that in many cases the medical man who first sees the patient does not realise the nature of his or her condition, because it is not at the commencement associated with serious constitutional symptoms. He hopes that by some chance the gut may return of itself; but day by day passes, and ultimately the unfortunate patient, seated upright in a cab, is jolted over the stones to the hospital. The patient's troubles do not always end here, for the dresser to the surgeon of the week employs taxis, the house-surgeon (and perhaps the assistant house-surgeon) does the same, and finally, having been placed under chloroform, the surgeon makes the last attempt before operating. What surprise, then, need exist for the fearful mortality which attends the operations for hernia on patients thus late sent into hospitals? In private practice, on the other hand, it is the exception for a surgeon to lose a case of operation for hernia. Mr. Forster recommends that the existence of nausea should be the test of necessity or otherwise for operation or interference.

Thirteen cases of *Stricture* are tabulated, some associated with abscess and fistulæ, others not. All were treated in the following manner:—On admission, a week or ten days' rest is enjoined, warm baths given, and alkalies and opium are administered. Then the process of continuous dilatation by the ordinary gum-elastic catheter is employed, and the patient is retained in hospital a few days longer than the time at which full dilatation has been reached. Mr. Forster very rarely uses silver instruments, and he sees no particular advantage gained by the use of dilators or bougies, such as the *bougie à boule* or the *bougie olivaire*. Nor has he had one case in which any necessity existed for perineal section; and this, he thinks, is because of the very patient trial which has been made of catheterism. The fourth column of Mr. Forster's table shows that gonorrhœa had occurred in almost all the patients, but at such a remote period from the first appearance of a stricture that it cannot be supposed that the two were in the relation of cause and effect. Gonorrhœa does not produce stricture *per se*. Still, so prevalent is the idea that in some way stricture and gonorrhœa are connected, that it will take, Mr. Forster thinks, a generation to combat the notion. An examination of these cases shows, too, that the use of injections cannot have much to do with the result. It is unlikely that the slight irritation set up by a gleet should end in a stricture years afterwards. It is more likely that the intermittent stretchings and relaxation that the penis, and with it the urethra, undergoes might produce it. And Mr. Forster adopts the conclusion that, if there be no hereditary predisposition to the disease, some slight inflammatory thickening may have taken place at the weakest spot in the healthy urethra, as the result of unequal distension of the parts.

Amongst the cases of *Tumours of the Breast* which were treated by excision of the gland, one is reported in which well-marked pyæmia occurred, and subsequently killed the patient. Another was an interesting case of benign cystic tumour with intra-cystic growth.

ST. PETER'S HOSPITAL.

LITHOTRITY FOR A CALCULUS WHICH FORMED ON A FRAGMENT OF A WAXEN BOUGIE—GOOD RESULT.

(Under the care of Mr. TEEVAN.)

John J., a clerk, aged 21, was admitted into the hospital on February 7, 1874, for stone in the bladder.

Past History.—About six years ago the patient was under the impression that he had a stricture, and spoke to a friend of his suffering from the complaint, who lent him a wax bougie. He only passed the instrument on one occasion, when, by some accident, about an inch of the bougie was left in the bladder. A small piece of wax came away the day afterwards, and another piece about four years later. Ever since the accident he has suffered pain when making water. Last summer he commenced to experience much pain at the neck of the bladder after taking liquids, and his urine scalded when passing. He was tolerably comfortable at night, but locomotion at any time was painful. He suffered from rheumatic fever some time ago. Is a native of Shipton, Oxfordshire. Does not know where his parents were born. The patient had previously come under Mr. Teevan's care in the out-patients' room, where he was sounded, and a calculus detected.

Present Condition.—Is a well-nourished, plump young man, of nervous temperament and delicate complexion. Complains chiefly of the pain at the neck of the bladder and his inability to walk many yards without suffering. Never passes blood; no albumen in urine; has good nights.

February 9.—Lithotrity at 3 p.m. with a strong scoop. Calculus three-quarters of an inch in diameter, and composed of oxalate of lime. A piece of pure wax came away in the *débris*; not a drop of blood was lost. Three hours later, whilst the patient was at the water-closet, he passed a few fragments of stone and a little blood.

10th.—Patient had a rigor at 9 p.m. last night, and another this afternoon.

11th.—Patient has had another slight rigor to-day, but he is now calm and quite free from pain. From this date he gradually resumed his usual state of health, but he desired the next crushing to be delayed, as he was apprehensive that a too speedy repetition might again bring on another attack of rigors.

25th, 3 p.m.—Lithotrity, borne very well. Three fragments were crushed, and not a drop of blood escaped. Many pieces of stone kept coming away for two days afterwards, two of them being very large.

March 2, 3 p.m.—Patient thinks he is rid of nearly all the stone, as he is feeling quite well. Four small fragments were crushed to-day, and not a drop of blood passed. The next day some fine *débris* came away.

7th.—To-day the patient left the hospital quite well in all respects.

25th.—Patient remains well and has resumed business; feels no annoyance of any kind.

Mr. Teevan remarked that the introduction of the lithotrite had robbed such an accident as that under discussion of all its dangers. In times by no means remote there would have been no resource for such a case but lithotomy, failing extraction of the foreign body immediately after its introduction into the bladder. Now, however, the lithotrite enabled the surgeon to completely remove the offender, with its accumulated deposits, with but little more annoyance than that which attended the passage of an ordinary metal catheter.

STONE IN THE BLADDER—LITHOTRITY—GOOD RESULT.

(Under the care of Mr. TEEVAN.)

James T., a packing-case maker, aged 55, was admitted into the hospital on August 27, 1868, suffering from stone in the bladder. The previous day he had sought Mr. Teevan's advice in the out-patients' room, and only complained that for six years he had been troubled to urinate very frequently, and that when he had made water he was again annoyed with a desire to micturate. As Mr. Teevan found he was not suffering from stricture or enlarged prostate, he introduced a sound and detected a calculus. Patient had suffered from gout, but had not passed any gravel. No albumen in urine.

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August 27.—Lithotrity at 3 p.m. to-day; calculus of lithic acid, and about three-quarters of an inch in diameter. A large quantity of *débris* passed away, with but little pain for two days after the operation.

30th.—To-day the patient left the hospital, as he felt so comfortable, and desired to be treated as an out-patient.

On August 31, September 7, 14, and 21 he was lithotritised, returning home each day of operation, and keeping quiet in the house for the next day, and then resuming his business.

October 1.—Patient is perfectly well in all respects, and has not experienced the slightest local annoyance whilst at work.

Mr. Teevan remarked that in the present instance the symptoms of stone were extremely obscure, for the patient only complained of frequent micturition and an ever-recurring desire to urinate when he had emptied his bladder; and it was only after eliminating, by examination, certain probable causes that he was induced to search for calculus. Sometimes the symptoms of stone were as ill-defined as at other periods they were unmistakable, and hence it was always well to sound a patient if there was any doubt, rather than wait for the development of more definite symptoms, for the delay might subject a patient to lithotomy, who, if an earlier discovery had been made, might have been successfully lithotritised.

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Medical Times and Gazette.

SATURDAY, APRIL 18, 1874.

FACTORY MEDICAL SUPERVISION.

Amid the outcry for medical sanitary supervision, one branch of such supervision has been much lost sight of, and has, we confess, received scant encouragement from the medical press. We allude to the employment of medical men in watching over the sanitary condition of the workers in factories. To this department of sanitary labour our attention is now particularly called by receiving a copy of the sixth annual report of the Association of Certifying Medical Officers of Great Britain and Ireland. We congratulate the members of that Association on the effort displayed by this publication to emerge from the obscurity which has heretofore surrounded them and their operations. Silent, unobtrusive work may be all very well in some model philosophic republic yet to be realised, but will not count for much in this blatant age, when display, advertising, and effrontery constitute the elements of success and open up the road to fame. Factory medical men have neglected to make themselves heard; they have pursued the even tenor of their way, conscious of working a good work, and both their professional brethren and the public generally have regarded them not. It was, therefore, high time for them to make known to a non-appreciating world the value of their labours and the possibly enlarged scope for their operations in the interest of the manufacturing classes. This desirable object is well attained by the publication of the present report. The reports of former years have indeed come to our hands, and we have usually taken occasion to call attention to them, and particularly to the addresses of the President of the Association, Dr. Arlidge, in which the duties of the office of certifying surgeons were vindicated from unjust aspersions and depreciation. Still these addresses, however truthful and forcible they were, were but the voice of one crying in the wilderness; the stolid and indifferent masses outside the Association required a preaching from the roof-tops by a multitude to arouse their attention. Nay, more; if their attention is yet to be thoroughly awakened, and if factory medical legislation is to be extended and improved in some only of the several directions suggested in the report before us, there need be iteration of the facts and figures, of the arguments and demands now presented, for months and possibly for years. It was only after a prolonged and severe contest that factory legislation became an accepted fact; it has taken above forty years to expand it to existing dimensions; and consequently no discouragement need be felt by those most interested in it if some few years more become necessary to render it what it should be—thoroughly efficient and consistent. How far it is from this desirable end the Association reports abundantly testify. Like most English law-making, factory legislation is a patch-work constructed on no consistent principle, and administered by no efficient and satisfactory machinery. It is full of anomalies, annoying to manufacturers and inimical to its utility. Its deficiencies and inconsistencies constitute the principal theme of Dr. Arlidge's addresses. But while this is the case, that gentleman does not omit to show what the work of certifying surgeons is, and in what directions it may be most beneficially extended. In the recently published report his views are enforced and added to materially by returns made to a series of questions put forward by a sub-committee, and addressed to factory medical officers throughout the kingdom. These returns demonstrate that those officers are not simply certifiers of age, as they have been often misrepresented to be, but that, viewing their functions from a much higher standpoint—according to the evident intent and purpose of the factory laws,—they act as supervisors of the health and of the fitness for work of the operatives coming under their cognisance. They withhold from work those whom they deem unfit by reason of deformity, debility, or disease; they collect valuable information relative to education and to the carrying out of vaccination; and in periods of infection they stand in the gap, intervening between the affected and the healthy engaged in associated labour, by keeping back the former from their fellow-workers. We cannot attempt here to write a description of their functions, although these need be much better understood than they generally are; but we will notify our hearty concurrence with the members of the Association in the desire to see those functions placed on a sounder and more rational footing, and to see them considerably extended. It strikes us as especially called for, that the "certifying surgeons" (so called by Act of Parliament) should be made *bond fide* sanitary inspectors of all factories and workshops—*i.e.*, of all places of associated labour,—and that their position and duties should be brought into harmony with those of the medical officers of health under the Sanitary Act.

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CHOLERA IN ENGLAND AND INDIA.

In our last publication we gave an abstract of the paper of Dr. Cuningham, "On Recent Experience of Cholera in India" (which was read at the Royal Medical and Chirurgical Society on March 24), and of the discussion which followed. Dr. Cuningham, as many of our readers are aware, is Sanitary Commissioner with the Government of India, and in that capacity has to receive and consider the reports of the various local sanitary officers in the Bengal Presidency, and to advise the supreme Government as to the course of disease, and the preventive or remedial measures it may be necessary for them to adopt. Prior to 1865 there was no detailed information as to the mortality caused by different diseases among the general population of India. The returns for the European and native troops, and the prisoners in the gaols (all of whom were under medical supervision), were the only sources from which an idea of this could be obtained; but as the stations which these occupied were comparatively few, and at considerable distances from each other, and not fairly distributed over the face of the country, the facts they presented, though of vast importance in tracing out the history of cholera, left much to be desired with regard to the diseases in civil life.

In 1865 registration of the deaths among the civil population was introduced, and in 1866 it was general through the territories under British rule. At first it was very imperfect in many districts, even as regards mere numbers, but the returns of late years have been improving in this respect, and will no doubt continue to do so until they fairly represent the actual mortality. As regards the specific diseases causing the mortality there must necessarily be much greater doubt, as, in the absence of trained professional observers, those returns can only be derived from the reports of ignorant people, or scarcely better-informed police, whose acquaintance with the distinctive characters is altogether inadequate, unless when, as in the case of small-pox or cholera, these are so marked as to leave little chance of mistake. These returns have now been available for several years for each district, not only in the Bengal Presidency, but also in that of Bombay and Madras; and with reference to cholera, so far as they can be tested by comparison with those from the European or native troops, or gaols, it is found they present a satisfactory agreement, though confessedly but approximate; therefore there can be no doubt that these returns present a view of the varying incidence of cholera on the general population throughout India, far more nearly approaching the truth than anything previously at our disposal.

With the information before him, and under the great responsibility of having to consider it with a view to devise the practical measures he should recommend for the adoption of his Government, Dr. Cuningham seems to have been impressed with the unsatisfactory nature of the prevalent theories bearing on the propagation of cholera, and of their insufficiency to account for the fluctuations in the distribution of the disease in the extensive region under his observation, and, in his last report, that for 1872, put forth his doubts in the following terms:—

"Is cholera a contagious disease? Is a specific poison multiplied in those who are attacked, which is capable of being transmitted to, and of producing like symptoms in, others? and if this be the case, is this poison contained in the discharge, and is it usually disseminated by means of water? Or, setting aside the doctrine of contagion, both in the ordinary and modified acceptation of the term, is man the carrier of a specific entity from an infected locality, which germinates and bears its deadly fruit wherever local conditions are suited to its growth? Is human intercourse *the* great and indispensable means by which cholera is borne from its home, and spread over the earth?"—(Page 1.)

At the Medical and Chirurgical Society, Dr. Cuningham confined himself to the evidence as to human intercourse, and the facts bearing on indirect contagion through water derived from the outbreaks at Peshawur, Meean Meer, and other places in 1872, all which he deemed inexplicable on the current theories.

In the discussion which followed, Dr. Hardie, Sir William Gull, Dr. Buchanan, Mr. Netten Radcliffe, Dr. Fayrer, and Dr. Burdon-Sanderson took part; and, as on all such occasions, the points advanced by these gentlemen sometimes involved a misapprehension of Dr. Cuningham's views, and whose adverse were more or less expositions of their own rather than logical refutations of those advanced by him; and we think it may be of some advantage to bring together here the more prominent questions between them. Mr. Radcliffe thinks Dr. Cuningham regards the contagium of cholera as operating like that of small-pox, irrespective of condition, and says the characteristic of the study of contagious diseases in this country for some years has been the determination of the peculiar conditions under which their respective contagia become effective; and that to argue that because a particular contagium did not operate unconditionally the supposed contagium did not exist, was much as to say a grain of wheat did not possess the germinative power, because it did not sprout when not placed under the requisite conditions. Mr. Radcliffe will pardon us, we hope, if we say he has got hold of a fallacy here. It has been proved beyond doubt that a grain of wheat does possess the power of germinating, and the conditions requisite are pretty well known; but as regards the contagium of cholera, though the conditions under which it is supposed to become active have been assiduously investigated by himself and others, Dr. Cuningham doubts its existence; Sir William Gull says proof of it as a scientific fact is still wanting; and Mr. Radcliffe did not adduce any evidence to justify these gentlemen altering their opinions.

It is well known that Dr. Burdon-Sanderson, during the cholera epidemic of 1866, made a number of experiments on mice, by which he showed that cholera-discharges in a particular state of decomposition caused a disease in these animals resembling cholera, which was also capable of being communicated to healthy mice by the discharges from those primarily affected. With regard to these and other sources of information, Dr. Sanderson stated he thought cholera was a disease of local origin, and that the cause attached itself to organic matter in a state of decomposition; but he was careful to avoid saying that this was a contagium having its origin in a person labouring under cholera. And in this he was quite justified; for it is well ascertained that *while cholera is prevalent* the employment of tainted meat or fish, or of acescent fruit (which are but forms of organic matter in a state of decomposition), or even of ordinary laxative medicines which at other times may be had recourse to with perfect safety, often determines a virulent attack of cholera without there being any reason to conclude these articles, or those who suffer after their use, have been exposed to the supposed contagium of the disease.

In support of the view of the diffusion of cholera by human intercourse, Mr. Radcliffe instanced the migration in 1832, 1848, and 1865 from East Europe to America, and pointed out that the latter two were more rapid in consequence of the introduction of quicker locomotion by steam. Dr. Cuningham rejoined that though India be more traversed by railways from east to west, and from north to south, besides having good roads greatly multiplied, cholera does not travel faster than it used to do before these were introduced, and the distribution of the disease as an epidemic continues to present the same features as formerly, irrespective of the more rapid locomotion of late years, or of the direction which it takes; and, with the facts from India before him, he has no alternative but to conclude that increased speed of locomotion is insufficient to account for the quicker spread of

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cholera in 1848 and 1856, and that the explanation is still to be looked for.

As to the transmission of cholera by water, only one specific outbreak was referred to—that at St. Peter's College, at Agra. This, Mr. Radcliffe said, would have led most English inquirers to make a minute investigation into the sources of water-supply, which inquiry, so far as the detailed report went, he thought missed the very point to be inquired about. On referring to the report, it appears there was a well within the College enclosure, some twenty yards from a hole seventy feet deep used as a latrine, and from this well the water for the institution was obtained until six weeks before the commencement of the outbreak. Since that time it had been obtained from another well, a third of a mile distant, and the staff of the institution, as well as the boys and servants, are all believed to have used water from the same source. The inmates comprised—19 staff, of whom none were attacked; 130 orphans, of whom 56 were attacked and 30 died; 46 boarders, of whom 7 were attacked and 4 died; 27 day scholars, 1 of whom was attacked; and 30 native servants, all of whom escaped attack.

The first three and last categories seem to have been resident in the College. The day scholars were present from 8 a.m. till the evening only, when they returned to their homes; they had their luncheon sent them from without, but used the same water while there as all the other inmates. Now, Dr. Cuningham contends that, as all used the same water, results so varied as those given above can be accounted for only by the operation of some other factor, which affected the classes which suffered, and to which those who escaped were but little exposed; and there seems no means of avoiding this conclusion, unless it can be shown, not only that water from the disused well was employed shortly before the outbreak, but that this was confined in the main to the orphans. Had Mr. Radcliffe been in possession of such information, he would no doubt have communicated it.

In concluding these remarks, we must express our agreement with Sir W. Gull, that the theory of the spread of cholera by contagion, and through the evacuations, is very imperfect; and we are by no means surprised Dr. Cuningham found a difficulty in reconciling the facts brought under his notice in India with that theory, so as to arrive at practical recommendations for the prevention of the disease. While we neither wish to depreciate unreasonably what has been done by Dr. Cuningham's opponents, nor to receive his views farther than they may be supported by evidence, we think he has done a good service in bringing his opinions fairly before the profession at this time, and trust they may induce calm thinkers to reconsider the subject in all its bearings, so that they may clear away much of that obscurity which now surrounds it, and contribute to the establishment of a theory more in consonance with facts.

CINCHONA CULTIVATION IN INDIA.

By a despatch from the Right Honourable the Secretary of State for India to the Governor of Madras, we learn some exceedingly interesting particulars with regard to the cultivation of cinchona in India. The whole thing has now passed out of the region of experiment into that of assured success. From 25,000 lbs. of bark sent home last year, the sum realised was £3490, the average price secured being 2s. 10d. per lb., while one parcel was sold at the very unusual price of 5s. 9d. per lb. Something like this average may also be applied to the 33,000 lbs. of dry bark used by Mr. Broughton, the Government quinologist at Ootacamund, in the manufacture of amorphous quinine, which will place its value at not less than £3300; and, judging from the same premisses, the additional 50,000 lbs. of bark to be harvested this year will be worth £6700. Thus, the total income from the plantations in 1873 will have been £13,490, which should increase in future years. This is considered to be a satisfactory interest on the whole outlay incurred, and it entirely removes cinchona cultivation from the category of experiments.

The question between the coppicing and mossing systems of taking the crops of bark is deservedly receiving very careful attention. It would appear that, under scientific and skilled management, the trees which are treated with the mossing process can be made to yield three times as much bark in the same time as the same number when coppiced. This at least is the deduction of Mr. Cockerell, the Commissioner. It must, however, be borne in mind that the mossing process is not likely to be successful unless skilled scientific management is available, and that, under other circumstances, an ordinary cultivator must resort to coppicing. It is, therefore, desirable that both systems should continue to receive attention on the Government plantations.

The means of supplying cinchona to the people of India in a cheap form, and in sufficient quantity, is a question which must always be considered as paramount in the conduct of the plantations. The object is to be attained in two ways, which must supplement each other—first, by the manufacture of alkaloids from bark on the spot; and second (for some years to come, at least), by the purchase of the febrifuge in the cheapest available form in Europe. Amorphous quinine—that is to say, the mixed alkaloids, unpurified by crystallisation,—made on the spot, seems likely to supply the former want, but details as to its cost and value are yet wanting.

From 1869 to 1873 the indents for quinine from Bombay amounted to 3382 lbs., while during the same period those for quinine and all other cinchona alkaloids from Madras only amounted to 2275 lbs. It will be interesting to ascertain whether this smaller demand from a larger presidency is due to Mr. Broughton's local manufacture, and to what extent. With reference to the second means of supplying the people of India with the febrifuge—namely, the purchase of the cheaper though equally efficacious alkaloids in this country,—the valuable reports of the Cinchona Commission, appointed by the Government five years ago, seem to have borne little fruit. It was the unanimous opinion of the medical men who investigated the question with praiseworthy care and diligence, that the three other cinchona alkaloids that were supplied to them were almost, some thought quite, as efficacious as quinine, except that cinchonidine did not sit so well on the stomach. Yet cinchonine, cinchonidine, or quinidine, have only been indented for in very small quantities since the date of the report of the Commission. Mr. Howard, the eminent quinine manufacturer, has been consulted on the subject; he particularly points out the value of cinchonidine, as likely, from its efficacy and cheapness, to supply the means of bringing cinchona within the reach of the mass of the people of India. Another very important advantage that will be derived from the extensive use of the febrifuge in the form of cinchonidine, is that it will extend the cultivation and increase the value of *C. succirubra*, the species which, while producing that particular alkaloid in very considerable quantities, also grows more readily and over a wider range than any other in the hill districts of the Madras Presidency. A yet more important subject, from an economical point of view, is the giving of quinine by subcutaneous injection.

THE WEEK.

TOPICS OF THE DAY.

The influence of unhealthy occupations among the artisan class is strongly exemplified in the annual report of Dr. Henry J. Yeld, Medical Officer of Health, for the borough of Sunderland. It appears that the mortality of diseases of the

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lungs was highest in North Bishopwearmouth district. This is attributed to the fact that in that district not only are nearly all the bottle and glass works situated, the workers in such factories being peculiarly prone to inflammatory affections of the lungs and air-tubes, but the workhouse also is in the district, in which institution a number of persons die annually from such diseases. This probably is to be accounted for by the inmates having been formerly employed in that unhealthy calling. It would be satisfactory if some information could be obtained as to the mode by which the evil in question could be mitigated, as in other cases—such, for instance, as the mortality amongst the Sheffield "grinders," which of late years has met to a certain extent with a remedy. It is remarkable that the infant mortality stands as follows:—Out of the total of 2341 deaths which occurred during the year, 1123 were those of children under five years of age. This rate, it is observed, is exceptionally high, and is due to causes which to a considerable extent are preventable, such as diarrhœa, marasmus, and convulsions—diseases caused in numberless instances by improper and unwholesome food and deficient sanitary arrangements. In South Bishopwearmouth, where most of the upper classes reside, the infant mortality is 5 per 1000 less than in Sunderland, where a dense mass of the working and improvident classes live.

A case of some importance as affecting surgeon-superintendents of emigrant vessels came before the magistrate of the Auckland (New Zealand) Police-court in December last, for the particulars of which we are indebted to the *Auckland Daily Southern Cross*. The prosecution was undertaken by the Emigration Commissioners. Dr. Millen Coughtrey, who was the surgeon of the ship *Chile* on her voyage from London to New Zealand, was charged with unlawfully assaulting Anne Vesey by putting her in irons, tying her up to the capstan, and otherwise ill-treating her. The evidence for the defence proved beyond all doubt that the woman was a most violent and dangerous character. Several of the witnesses swore that she had placed them in bodily fear. It was also admitted that Dr. Coughtrey was kind and attentive to all the passengers, and the prosecutrix herself stated that "he always was very kind to her on every other occasion. No one in the world could have been more attentive than he had been to the emigrants." The magistrate, in summing up, said—"From the evidence adduced, it appears to me that this case resolves itself into two very simple questions. Firstly, Was it necessary for the preservation of the peace, and to prevent bloodshed, that Mrs. Vesey should be restrained? Secondly, Had the captain and doctor any other means of restraining Mrs. Vesey than those resorted to? The evidence is abundantly clear that the first question must be answered in the affirmative, and the second in the negative. I must, therefore, dismiss the case." On the application of Mr. Heaketh, costs were allowed, his Worship remarking that Dr. Coughtrey was entitled to a much larger amount than the Court could award him. The magistrate's decision is a complete exoneration from the charges brought against Dr. Coughtrey, and a just judgment upon the facts of the case. We think Dr. Coughtrey simply did his duty, and that he has great reason to complain of the conduct of the Government officials in subjecting him to the undeserved annoyance and injustice of such a prosecution. We entirely adopt the following remarks of the *Daily Southern Cross*—that "the case was one which should have been 'inquired into,' not 'tried.' The law provides that the Emigration Commissioners should, under certain circumstances, make an inquiry. The Commissioners, on visiting the ship, saw the woman was in confinement, and the reason of that seclusion was made known to them through the doctor. They made no inquiry; but afterwards, for some occult cause, the Government officers take up this woman's case. Had a proper inquiry into this case been made by the Commissioners, the recent action would never have been brought, nor would the Government have been placed in the position of taking charge of a prosecution which has so deservedly broken down as this has done."

The following fatalities from small-pox are reported by the *North Devon Journal*:—A boy of Combe Martin, an apprentice to a firm of drapers in Bristol, was lately taken ill and sent to a medical gentleman, and almost immediately afterwards sent home by train, a telegram having been previously sent to his friends to send a conveyance to meet him at the railway-station. It was a cold, raw day, and the parents, not supposing that their son was seriously ill, sent an open vehicle to bring him home. On his arriving at home, it was at once seen that the youth was suffering from small-pox. After a few days he died. The young man who fetched him from the station also took the disease and died, and the woman who nursed him is seriously ill. Two men who put the body into the coffin caught the infection, and one is reported dead. Another woman who took tea with the nurse likewise caught the disorder. If the facts of the case are as here stated, such culpable carelessness and wanton indifference to the spread of the disease demand a searching inquiry by the local authorities, and adequate punishment for what is little short of criminal conduct on the part of someone.

Participating in the universal sorrow for the loss of Dr. Livingstone, the Faculty of Physicians and Surgeons of Glasgow, at a meeting of the Faculty held last week, decided to be suitably represented at the funeral, and passed a resolution expressive of their high sense of Dr. Livingstone's worth, and of sympathy with his bereaved family. Hereupon, Dr. Andrew Buchanan said he might mention, as evincing the high value he set on his medical character, that Dr. Livingstone had always attributed his success as a traveller and a missionary to the fact of his being a medical practitioner; and he had heard Dr. Livingstone say that he never would have returned from his first expedition unless he had been a medical licentiate, for that such was the veneration of the natives for him in that character, they would not touch his goods, far less injure himself, believing he had the power to bring down on them fire from heaven, or some similar judgment. Dr. Livingstone became a Licentiate of this Corporation in 1840, and an honorary Fellow in 1857. The nation will to-day pay the last remaining tribute of respect to the memory of this great departed traveller. It is a satisfaction, although a melancholy one, that this opportunity has been afforded us, and of burying amidst many of England's worthies in Westminster Abbey the remains of this distinguished man.

Soon after the arrival of the remains of the late Dr. Livingstone at the rooms of the Royal Geographical Society, on the 15th, an examination of the body was made by Sir William Fergusson, in the presence of a few friends of the deceased. The most interesting result, as far as the identification of the body went, was the condition of the left arm-bone, which presented traces of the fracture sustained in an encounter with a lion nearly thirty years ago, as is vividly described by the Doctor in one of his earliest volumes of travels. It is evident that under the circumstances the examination could not be more than a very limited one.

Dr. Dyson Wood, Medical Officer of Health for Wakefield, drew particular attention, in his report to the rural sanitary authority last week, to the continuance and fatality of scarlet fever. He stated that out of fifty-six deaths from zymotic disease during the last six months, no fewer than thirty resulted from scarlet fever, and that sixteen of the thirty occurred in West Ardsley. He considered the continuance of the disease in West Ardsley to be due in a great measure to the bad supply of water, both as regards quantity and quality; the

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want of a fresh supply of good water was, in his opinion, most urgent in West Ardsley. The rural sanitary authority, we are glad to observe, appear to appreciate the responsibilities of their position, and there is good hope that the present deficient and impure supply of water in West Ardsley will have their immediate and earnest attention, and measures be adopted to arrest the spread of the disease, and the waste of human life from certainly preventable causes.

A contradiction comes from Dr. James Weaver, the medical adviser of Lady Radcliffe, to the report in the *Record* that "her ladyship has been ill ever since the Tichborne trial with nervous depression and exhaustion, and is now quite confined to bed." Dr. Weaver says:—"Her ladyship is at the present time in excellent health, and, excepting a smart attack of lumbago, the result of cold, she has not had an hour's indisposition, either mentally or physically, since the trial of Arthur Orton."

Several cases have, in the last few days, been brought before the City magistrates, of farmers having sent to the London market quantities of meat unfit for human food. A fine has in each case been imposed, and of a comparatively heavy amount; but, from the undoubted increase in these offences, it would appear that the imposition of fines does not act as a deterrent to this class of offenders, neither does the stigma of such a conviction on these apparently respectable farmers and traders stop their nefarious transactions. The question therefore is worth consideration, whether imprisonment without the option of a fine has not become inevitable. Condign punishment would appear severe, but the protection of the health of the metropolis must be preserved against such dangerous frauds as these, even if harsh measures must needs be adopted to secure it.

It will be remembered that the Prince of Wales has consented to preside at the annual dinner of the Royal Medical Benevolent College, to be held on Wednesday, the 22nd inst. An early application for tickets to the Secretary, Soho-square, will be found necessary.

Dr. Edis has been appointed Assistant Obstetric Physician to the Middlesex Hospital.

THE ARRIVAL OF THE HOSPITAL-SHIP "VICTOR EMMANUEL" FROM THE GOLD COAST.

On Friday afternoon last, the Hospital-ship *Victor Emmanuel* arrived at Spithead from Cape Coast Castle. She had on board four invalided military officers, and 160 non-commissioned officers and men belonging to the various corps lately doing duty on the Gold Coast. The recovery of the sick on board during the voyage home has been most satisfactory—so much so that only thirty-one cases are left for removal to the Royal Victoria Hospital at Netley. Three officers died on board during the voyage—viz., Major Baird, 42nd Highlanders, of heart disease, buried at Sierra Leone on March 5 last; Lieutenant Johnstone, 23rd Regiment, who died on February 28 last of dysentery, and was buried at sea; and Surgeon McCarthy, who was taken on board at Sierra Leone suffering from a severe attack of dysentery, and who jumped out of one of the ports whilst in a state of delirium, and was drowned. This latter unfortunate circumstance has led to a suggestion that some of the ports should be protected by iron bars, as the *Victor Emmanuel* will, no doubt, be retained as a hospital-ship for use on future similar occasions. Amongst the non-commissioned officers and men, seven deaths occurred since leaving Cape Coast Castle. Of the four invalid officers on board, Captain Dudley North, 47th Regiment, was convalescing from a severe slug-wound in the arm; Sub-Lieutenant C. D. Sherston, 2nd Battalion Rifle Brigade, from a severe bullet-wound in the arm; and Lieutenants T. A. Kirwin, 1st Battalion Royal Scots, and W. A. Wynter, 33rd Regiment, from fever and dysentery.

It is stated that the *Victor Emmanuel* is in such perfect order as a military hospital-ship, that she will remain for some time stationed off Netley Hospital, in Southampton Water, to relieve that establishment from the great pressure which arises from the arrival of the Indian troop-ships from Bombay, with invalids, at the end of the trooping season. As we have before mentioned, the whole details connected with the *Victor Emmanuel* have been of the most satisfactory description; her huge size and complete fittings render her perfectly comfortable and highly sanitary. The total number of cases received on board during the time she was stationed at Cape Coast Castle amounted to 565, of whom only three died on board previous to her leaving for England. Of these received, 104 were discharged fit for duty, 125 were transferred to other ships or to join their respective corps, 165 were invalided home, and 171 remained on board when she set sail for this country.

The 2nd West India Regiment is reported by the latest advices to have embarked at Cape Coast Castle for Jamaica, on board the transport *Nebraska;* and the remainder of the detachments of various branches of the service, together with surplus stores of all kinds, are being sent away with all possible despatch in the different transports which were taken up in this country at the commencement of the war.

It is further stated that the treaty of peace, drawn up by Sir Garnet Wolseley previous to his leaving, has been signed by King Koffee, and has been brought to Government House, Cape Coast Castle, by his ambassadors, who are all of them chiefs, and who have all affixed their signatures to the document. No guarantees are given for the execution of the treaty, but it is to be hoped that the severity of the lesson administered at Coomassie will act as a check in controlling the marauding propensities of the hitherto troublesome and warlike Ashantees.

The inspection of the sailors and marines who have returned from the Gold Coast has been fixed for Thursday, the 23rd instant, at the Royal Clarence Yard, Portsmouth.

RECRUITING AND THE BRITISH ARMY.

A War Office return, just published, gives several interesting details regarding the number of troops enrolled in all branches of the army and reserve forces during the year which ended in November last. From it we gather that there were in the army 13,159 non-commissioned officers and men of all arms under the age of 20 at home, 1126 in India, and 871 in the colonies; 31,804 over 30 years of age at home, 22,593 in India, and 6618 in the colonies. There were, in addition, at home, 1339 whose ages were not registered. The number of recruits who joined the regular army during the year was 16,851, of whom 5050 were under 19 years of age, 4005 between 19 and 20, 5033 between 20 and 23, 1734 between 23 and 25, and 226 whose ages were not given; and 3451 recruits were sent to India, of whom 85 only were under the age of 19, 203 upwards of 19 and under 20, 2057 between 20 and 23, and 1062 between 23 and 30 years of age. Of the total number of men recruited, 7311 were for long, and 9383 for short service, 157 being returned as "not stated."

During the year there were 67,965 admissions into hospital reported in weekly returns from home services, the average number of men constantly under treatment being 3357. There were 876 deaths in the home, and 1134 in the Indian portion of the army; and 2592 were returned as invalids from India, 984 of them being subsequently discharged the service. The deserters numbered 5782, of whom 1779 rejoined, or were apprehended; 190 recruits deserted before being finally approved.

The Inspector-General of Recruiting has also published his report for the year, from which we quote the following extract:

"The quality of the recruits raised during the year may be considered as satisfactory. At all the chief military

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stations throughout the kingdom the principal medical officers have made reports monthly on the subject, and on all occasions have expressed themselves fully satisfied with the physique and general appearance of the men who have joined the several corps. A very few exceptional cases have been remarked upon, chiefly of lads objected to as being deficient in stamina and bodily development; but these, in nearly all instances, have since grown into strong and healthy young men—a consequence no doubt to be ascribed to the better food provided, and the more healthy and active habits pursued as soldiers than in the conditions of life previous to enlistment. During the twelve months ending on June 30 last, 258 objections to recruits sent to regiments were made by commanding officers. Of this number, after thorough inquiry and examination, 117 were retained, and the remaining recruits (in all 141) were released from the service, being a proportion of less than 1 per cent. on the total number of recruits raised during those twelve months. It is no doubt noticeable that fewer full-grown and able-bodied men are now enlisted for the army than formerly, and that the average age of those now entering the service is younger than it was some years ago; but this is not to be wondered at, considering the very great advance that has taken place lately in the rate of wages, and the demand for labour that has been universal throughout the country. Under the exceptional circumstances in this respect during the past year, it is a matter for surprise that the number of men obtained for the service has been so satisfactory, and it tends to prove that the indirect advantages to be derived from adopting the profession of a soldier are now beginning to be better understood by the classes of the community from which the ranks are filled."

We can scarcely concur in the opinion of the official we have just quoted as to the "satisfactory" nature of the returns now rendered. In times of peace we may do pretty well with the youthful element at present attracted to the standards, but in the event of war the country would sadly miss the "full-grown and able-bodied men" who no longer offer themselves for service. Ought not the Crown to compete with other labour markets for the best article? If wages have risen to such an extent that the soldier's pay no longer offers a fair remuneration for the service rendered, has not the time arrived when the rate of pay should be increased? Great Britain should not be left to depend upon an army principally composed of growing boys; and unless the authorities will gravely consider this matter, the question of compulsory service for all classes must sooner or later be forced upon the attention of the nation. The number of recruits raised during the past year has been about enough to supply the ordinary requirements in time of peace, but nothing like what would be required were we unfortunately at war; moreover, in two years' time, when the operation of the Army Enlistment Act of 1870 comes to be felt, a much larger annual number of recruits will be necessary to fill up the vacancies of those who, having completed their six years of army service, will have passed into the reserve.

It is useless to deny that the means for keeping up the efficiency of the army are in an unsatisfactory state. If increased pay and pensions are necessary to induce the full-grown and muscular members of the working classes to select the ranks in preference to the workshop, it is foolish economy to withhold such inducements. When it is remembered how vastly superior is the condition of the British soldier of the present day—how his health, his comforts, his amusements are matters of daily consideration and solicitude,—it becomes evident that there is something which requires rectification; and the discovery of that "something" we most earnestly commend to the attention of the authorities at the War Office.

THE ROYAL COLLEGE OF SURGEONS.

At the present moment there is a great deal of gossip floating about respecting the annual elections next July at the Royal College of Surgeons. At present there are three vacancies, caused by the resignation of Mr. J. F. South, and the retirement in the prescribed order of Mr. John Hilton, F.R.S., and Mr. John Marshall, F.R.S. The last-named gentleman will offer himself for re-election, and probably, as a matter of course, be re-elected. Mr. Hilton, it is stated, will retire from the Council, retaining his seat as an examiner. For the two vacancies—those of Messrs. South and Hilton,—already the names of several Fellows are mentioned, as Messrs. W. S. Savory, F.R.S., of St. Bartholomew's Hospital, a member of the Court of Examiners; Mr. J. Cooper Forster, of Guy's Hospital; and Mr. Henry Smith, of King's College Hospital. The two first-named gentlemen were candidates on the last occasion. From the provinces we have Mr. Alfred Baker, Surgeon to the Birmingham General Hospital; and Mr. E. L. Hussey, Surgeon to the Radcliffe Infirmary, Oxford,—the first-named gentleman a Fellow by election, the latter by examination. Great efforts are being made by the friends of Mr. Baker, who raise, or rather continue, the cry that the provinces should be more largely represented on the Council. Now, it is generally considered by metropolitan Fellows that this implies that the interests of provincial hospitals and schools are neglected, or do not receive that consideration to which they feel they are entitled. This, of course, is a mistake, as Dr. Humphry and Mr. Southam, the provincial members of Council, can testify. The candidates are all Fellows by *examination*, except Mr. Baker, who is one by election, and junior to the others; and as *seniority* with other qualifications sometimes has its weight, we subjoin their dates of Fellowship:—Mr. Forster, April 11, 1849; Mr. Hussey, August 16, 1849; Mr. Smith, December 7, 1849; Mr. Savory, August 10, 1852; and Mr. Baker, October 21, 1852. In a few weeks no doubt other candidates will be named. A Committee was appointed by the Council of the College on April 17, 1873, to determine and report to the Council how the visitation of recognised metropolitan and provincial medical schools should be effected, with a view to ascertaining the arrangements which have been made in them for carrying out the regulations of the College, requiring practical instruction in the course of medical studies. This Committee has held three meetings, and has agreed to the following preliminary report, viz.:—The Committee, before proceeding to consider the question of the visitation of medical schools, deemed it advisable to address a circular to the authorities of those schools, inquiring how, since October 1, 1870, practical physiology and practical surgery have been taught in them, and what have been and are their facilities for teaching practical anatomy, by dissection and by prepared parts of the human body. The answers to this inquiry have been on the whole very satisfactory, proving that in all the medical schools a great stimulus has been given to practical teaching, and that in some of them considerable sums of money have been, and in others are about to be, expended for the purpose of providing laboratories and apparatus of all kinds for more efficiently complying with the regulations of the College. At the same time, in a few of the medical schools there appears to be a deficiency of material for the proper teaching of practical anatomy, particularly as regards prepared parts of the human body—a deficiency which the extended character of the examinations at the College, and competition with other schools, will probably soon cause to be supplied. The Committee do not consider it necessary at present to recommend to the Council any personal visitation of the medical schools, but intend to address further inquiries to some of the schools from which they have not yet received the required information.

THE "HOSPITAL SUNDAY AND SATURDAY COMMITTEES" AT THE MANSION HOUSE.

A CONFERENCE of working men, convened by a circular from the "Metropolitan Hospital Sunday Fund," was held at the Mansion-house on Saturday last, under the presidency of the Lord Mayor. The object of the promoters of the conference

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in question appears to have been the organisation of a Hospital Saturday collection in all the metropolitan workshops on June 13 next, in connexion with the Hospital Sunday collection at the churches on the following day. The working men, however, who have formed themselves into a "Hospital Saturday Committee," have opposed this scheme on the ground that the proceeds of the Saturday collection would be added to the sum obtained on the Sunday, whereby the amount raised amongst themselves would be lost sight of as a separate donation, and they would be deprived of the privilege of dispensing it as to them seemed best.

A very stormy discussion would appear to have been the result of this conference, the dignity of the Mansion-house and of the chief official of the City of London suffering considerably at the hands of several of the speakers. In vain the Lord Mayor protested against the informality of the proceedings, and refused to receive any protest unless it came from a notary public. He was met by the announcement that the Saturday Committee would not be put down by any resolution which might be passed at that meeting. One speaker propounded the novel theory that a sovereign collected from twenty working men would prove of more benefit to the London hospitals—relatively, if not actually—than one hundred pounds subscribed by a Lord Mayor. Sir C. Trevelyan, who attempted to address the meeting, was met with derisive laughter and cries of "Time!" "Stale truisms!" etc., in the midst of which he resumed his seat; whilst another working man, who was openly received as the "funny man of the meeting," accused the Lord Mayor of having invited them there to help himself out of a certain difficulty.

After two hours and a half of altercation, during which time on more than one occasion several workmen simultaneously rose, each vigorously claiming to be heard, a resolution was put and carried to the effect that "the Committee formed at Leicester-square be requested to confer with the Mansion-house Committee, with the object of amalgamating the two bodies." It was then suggested that a committee of working men, independent of the Hospital Saturday organisation, should be elected to take part in the conference. This proposition was also approved, and, after another warm debate, six names were eventually agreed upon. The usual vote of thanks to the chairman elicited from the Lord Mayor, in reply, a remark that if the meeting really wanted to make much good progress in the world, the members composing it must talk less and work more.

We cannot but express our regret that the present difficulty has been allowed to arise. That the two Committees will ever work harmoniously together we think is a matter of grave doubt, and in our opinion it would have been far wiser to have carried out the original intention of a Hospital Sunday collection in the various churches of the metropolis, leaving it to the Hospital Saturday Committee to organise their collection from the metropolitan workshops in October next, with power to distribute the proceeds in any manner which might have been determined on.

BILL PROPOSED BY THE KING AND QUEEN'S COLLEGE OF PHYSICIANS IN IRELAND TO AMEND THE PRACTICE OF PHARMACY IN IRELAND.

The King and Queen's College of Physicians in Ireland, having regard to the great deficiency which exists throughout the country of establishments for the sale of medicines and compounding of prescriptions, has proposed a Bill which shall remedy this inconvenience. By this measure it is intended to secure (1) the extension of the Pharmacy Acts of England to Ireland—that is, that persons qualified and registered under these Acts shall be deemed qualified to keep open shop for the sale of medicines and compounding of prescriptions in Ireland; and (2) the reciprocal right of persons registered by the Apothecaries' Hall of Ireland to practise pharmacy in Great Britain. In certain "observations" which are published along with the proposed Bill, the College has explained the necessity for such a measure. At present the provisions of the Pharmacy Acts of Great Britain do not extend to Ireland, where, according to the law, every person keeping open shop for the compounding of prescriptions is subject to a penalty of £20 for each offence, unless he has a licence from the Apothecaries' Hall. In order to obtain such a licence, he must spend four years in professional study, including that of anatomy and physiology, medicine, surgery, midwifery, etc., in addition to those more specially relating to chemistry and pharmacy, and attendance for two years at a recognised hospital. These qualifications have only recently been required by the Apothecaries' Hall, and it is since they became necessary that the dearth of chemists' shops has arisen in the country. To obviate these evils it is only necessary to extend to Ireland the Pharmacy Acts of England, as proposed in the Bill. The Bill will also establish between Great Britain and Ireland reciprocity of rights in pharmacy similar to those now enjoyed in medicine.

SURGICAL SOCIETY OF IRELAND.

The concluding meeting of the forty-third session of this Society took place in the Albert Hall of the Royal College of Surgeons, Stephen's-green, on Friday evening, the 10th inst., the President, Dr. Denham, in the chair. Professor E. H. Bennett read a paper, "On Gunshot Fracture of the Femur as a Determining Cause of Bony Anchylosis of the Hip-joint." The case presented in illustration was one of great interest. Dr. Emerson Reynolds exhibited and described an apparatus for estimating quantitatively the total amount of nitrogen excreted in the urine. The process was sufficiently simple, and extremely accurate. Dr. Reynolds believed that hitherto observers had paid too little attention to the estimation of what he would call "residual nitrogen" in disease—that contained in creatin, creatinin, hippuric acid, etc. The President delivered a valedictory address, in which he mentioned the completion of some necessary and most desirable reforms in the mode of electing the Council, and in the management of the Society. Having congratulated the members on the amount of solid work achieved within the last few months, he declared the session closed.

THE SPHYGMOGRAPH IN THE EARLY STAGE OF BRIGHT'S DISEASE.

At the Medico-Chirurgical Society, on Tuesday evening, was read a very interesting paper on the Results obtained by the Use of the Sphygmograph in the Early Stage of Bright's Disease, from the pen of Mr. Mahomed, whose researches by means of this instrument are so well known to our readers. His observations were made at the Fever Hospital, where Mr. Mahomed is Resident Medical Officer, and had the advantage of being corroborated by Dr. Broadbent. Too much of the paper was theoretical, but there remained a solid basis of fact of the greatest importance. His investigations tend to show that in the form of Bright's disease which follows scarlet fever there is an early stage, the first indication of which is usually a pulse exhibiting high tension, though this may be preceded by dry skin and confined bowels. Next comes, as first in the order of changes in the kidney, a urine which contains no albumen recognisable by the ordinary tests, but some blood stuff, which yields the blue reaction with ozonic ether and tincture of guaiacum. If matters still go on, this is followed by ordinary serum-albumen, and when that is abundant no blue reaction can be obtained. Moreover, Mr. Mahomed says that he has only been able to get this blue reaction when the tension is arterial, not when it is purely venous. The whole bearings of this research we yet fail to see, but it is of undoubted value if only as directing investigation to a new channel. The fact that the vascular tension is high in certain forms of Bright's disease, is not

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new, though not many sphygmographic tracings have been available to prove this; but it is a distinct practical gain to know that this tension can be decidedly diminished by the use of a purgative or the wet pack.

ROYAL IRISH ACADEMY.

At a meeting held last Monday evening, the 13th inst., the chair was taken for the first time by the new President, Dr. Stokes, D.C.L., F.R.S. Dr. E. W. Collins made a communication upon "Accessory Lobes of the Human Lungs," founded upon a specimen obtained from the anatomical school of the University. The specimen presented an accessory lobe of the right lung, lying above the root, and invested by a pleural duplicature, which contained in its lower free margin the azygos vein, and in its external border the superior intercostal. Reference having been made to seven similar cases noticed in different parts of Europe, special stress was laid upon a unique case, detailed by Wrisberg, of a lobe having similar relations upon the left side, as conclusively establishing the mode of origin of the lobe in connexion with the development of the azygos and superior intercostal venous systems. The author regarded these as the only true accessory lobes yet described in man. Mention was made of other so-called accessory lobes, particularly of one described by M. Pozzi, below the right bronchus, from its apparent homology to the mammalian *lobus impar;* and a similar one upon the left side, described by Professor Rektorzik. These, however, the author regarded as merely higher developments of pulmonary notches which are often normally to be found. The paper, which was illustrated by the recent specimen and by several drawings, concluded with an allusion to accessory bronchi in their connexion with the subject.

RECOVERY FROM INSANITY.

It has been said that you can make figures to tell either way. This is to some extent true, but it is not true when the figures made use of are founded in fact. The basis of all true statistics is truth, and a uniform mode of applying them. The following important observations are from the last annual report of the Glamorgan County Lunatic Asylum. The author, Dr. D. Yellowlees, the Medical Superintendent of the Asylum, says:—

"There is a remarkable variation in the proportion of recoveries as given in the annual reports of different asylums, and comparison is apt to convey erroneous impressions. While the number of recoveries in any asylum must depend chiefly on the nature of the cases admitted, and may depend somewhat on the skill of the physician, the number of tabulated recoveries depends greatly on the views he may entertain as to the condition which deserves that pleasant name. A case of idiocy with epilepsy was once boldly styled a recovery because the child had recovered from an attack of the fits under certain treatment. If this principle were adopted, and recovery meant only restoration to the condition which preceded the recent attack,—or if it meant merely a condition in which no one unacquainted with the patient could sign a certificate of insanity,—or again, if the name could properly be given to the complete though temporary intermissions in recurrent cases,—the proportion of recoveries here would be very different indeed. A person who is legally certified to be of *unsound* mind has not fully 'recovered' till he can be certified to be of *sound* mind and equal to all the responsibilities which that implies. If this standard be once departed from, the proportion of 'recoveries' may rise to any amount. However pleasant it may be to tabulate a large proportion of recoveries, it is better to be strictly accurate, and to enter as 'relieved' all patients who cannot be thus certificated, even although they may be able to gain their own livelihood, and may be regarded as recovered by their friends. I strongly approve of the discharge of *partially recovered* patients who are not likely to derive further benefit from asylum treatment, whenever the circumstances give any prospect of their well-doing; but in recording the results of treatment, absolute truthfulness is far more important than *apparent* success."

A WELL-EARNED RECOGNITION OF SERVICES.

We have much pleasure in learning that the General Purposes Committee of the Royal College of Surgeons have recommended that the salary of Mr. Trimmer, the Secretary to the College, be raised from £500 to £700 a year. They also recommend to the Council that, in consideration of the unusual and responsible duties which have devolved upon the Secretary in connexion with the preparation of the Scheme and Regulations for the Conjoint Examining Board in England, such increase do take effect from Lady-day, 1873. This recommendation was, we believe, unanimous, and will, doubtless, be acted upon. Everyone who knows the onerous and responsible duties which devolve upon Mr. Trimmer, and the admirable way in which he performs them, will concur that this action on the part of the Committee is only an act of justice to that gentleman.

SUPERANNUATION OF POOR-LAW MEDICAL OFFICERS.

Amongst other subjects alluded to at the late meeting of the Association of Poor-law Medical Officers was that of the question of superannuation. This is a subject of great importance. Unquestionably many acts of great injustice have been inflicted under the present unsatisfactory state of the law. Unfortunately, the Act is only permissive, and the carrying out of its provisions is left in the hands of the guardians, who are occasionally neither just nor generous. It was only the other day that a poor-law medical officer far advanced in years, and who for nearly half a century had fulfilled his duties in an exemplary manner, was dismissed merely from physical infirmity, and a superannuation withheld from him. He had accordingly to throw himself on the consideration and benevolence of his professional brethren. This is a state of things which should not exist; it is highly tyrannical on the part of the guardians, and most unjust to a praiseworthy and, as far as we know, blameless medical officer. We agree with Dr. Rogers that the superannuation should be claimed as a right, and not left "as an act of mercy" or to the "discretion" of a board of guardians. The Association should use its power to amend the Act, so that the superannuation allowances should be paid solely out of the Consolidated Fund. Could this be effected—and we believe it will be so ere long,—a great and beneficial reform would be made, and for the future such acts of injustice and hardship would be prevented.

PRESENTATION TO DR. WALLER LEWIS, CHIEF MEDICAL OFFICER OF THE GENERAL POST-OFFICE.

A handsome timepiece, tazzas, and candelabra were presented by the medical staff of the Postal Service to Dr. W. Lewis on the occasion of his recent marriage. The subscriptions, confined to this body and limited in amount, were accompanied by a number of gratifying and cordial letters from all parts of the kingdom, and regrets expressed that the contributions should have been fixed at so low a rate. Dr. Lewis has been in his present position for nearly twenty years, and it is pleasant to witness that the urbanity and good feeling he has shown to his colleagues in the Service have been appreciated and thus pleasantly expressed.

IMPROVED CONVEYANCE OF MEAT BY RAIL.

A new purveyor's cart and household safe, built under "Acklom's patent," have been introduced, to which the principle of evaporation has been applied as a refrigerating agent; and it is proposed to adapt the patent to vans for the conveyance of meat on railways. It is to be hoped that by this means dead meat may be sent to London from distant parts of the country in a fresh state, even in summer, and that the transit of live cattle for slaughter may be greatly reduced or even abolished.

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EXTENSION OF THE EDINBURGH UNIVERSITY.

We announced last week that a meeting of the Edinburgh University Club in London had been summoned by the Council, "to consider what action should be taken by the members of the Club with reference to the proposed extension of the University buildings." Several influential members of the Club, accepted the invitation to meet at No. 11, Grafton-street, Piccadilly, and Dr. Sieveking was called to the chair. After some preliminary observations by some of the gentlemen present, the following resolution was moved and seconded:—

"That the Club are anxious to promote the plan proposed in Edinburgh of extending the University buildings; and that the gentlemen present form themselves into a general committee for the purpose of obtaining support and subscriptions. That the committee have power to add to their numbers, and report to the Council of the Edinburgh University Club."

Mr. Philip Vanderbyl next proposed—

"That an acting committee, consisting of twelve gentlemen, be formed in London, of which six shall be elected by the Edinburgh University Club, who shall associate with them six others, not members of the Club, for the purpose of obtaining subscriptions for extending the Edinburgh University buildings; this committee to act as far as possible in concert with the Edinburgh Acting Committee."

Both resolutions were carried unanimously. The gentlemen present then resolved themselves into a committee for the election of six members to represent the Club on the Acting Committee. The following gentlemen being duly proposed and seconded, were appointed in conformity with the foregoing resolution:—The Right Hon. Lyon Playfair, the Rev. Dr. Gordon, Dr. Sieveking, Philip Vanderbyl, Esq., Dr. Murchison, and Dr. F. Churchill; with Dr. Dyce Duckworth as *ex off.* hon. secretary.

THE LADY "MEDICALS" IN EDINBURGH.

During the winter session just ended, about ten female medical students have been attending professional lectures in Edinburgh. The following are the names of the lecturers who have been holding classes for ladies:—Dr. Keiller (Midwifery), Dr. Coghill (Pathology), Dr. Moinet (Materia Medica), Dr. Littlejohn (Medical Jurisprudence), and Dr. Balfour (Clinical Medicine).

BALLOON ASCENT.

M. Janssen last week gave a verbal account to the Académie des Sciences of the ascent made by MM. Crocé-Spinelli and Sivel on March 22, when the balloon attained a height of 7300 metres. The occasion was seized for ascertaining whether, by means of a provision of oxygen, aëronauts may not be able to ascend to great heights without the ill effects which are otherwise observed. At a height of 4000 metres, M. Crocé-Spinelli, the least strong of the two, found it necessary to breathe a mixture containing 40 per cent. of oxygen, which enabled him to mount up to 6000 metres, when he breathed a mixture containing 75 per cent. The travellers kept caoutchouc tubes to their mouths, which communicated with vessels containing the gases. Ceasing to breathe these while he was casting the ballast out, M. Sivel found that the bags of fifteen kilos seemed to weigh 100. When M. Crocé-Spinelli did not breathe the oxygen he was obliged to crouch at the bottom of the car and make his observations motionless in that position, but after making some ten inspirations he was able to get up, talk gaily, and take delicate observations at his ease. Contriving to inspire the oxygen at the same time that he was eating, he found that his appetite and digestion returned. The pulse, which was 140 prior to inspiration, was 120 or 128 afterwards. The bands of the spectroscope, which before inhaling were confused, became very distinctly clear. The bands due to vaporised water were found to be absent at a height of 7000 metres—a point of great importance, as M. Janssen observed, as indicating the absence of such vapour in the solar atmosphere. Of four pigeons liberated at a height of 5000 metres, only one, which took to flight with frightful rapidity, returned home.

A PRINCIPAL MEDICAL OFFICER FOR THE HOME DISTRICT.

We believe that it is in contemplation to appoint a Principal Medical Officer for the Home District, which up to the present time has been without such an officer; and it is further stated that Surgeon-Major Bostock, of the Scots Fusilier Guards, will be promoted to the rank of Deputy Surgeon-General, and nominated for this post.

MORTALITY OF LONDON.

During the week ending Saturday last, 1387 deaths were registered in London, being 288 below the average. Thirty-six persons died from measles, and not one from small-pox. The deaths from diseases of the zymotic class, which in the four preceding weeks had steadily declined from 188 to 163, further fell last week to 150.

PARLIAMENTARY.—INFANTICIDE BILL—DWELLINGS OF THE POOR—CONTAGIOUS DISEASES (ANIMALS) BILL—ADULTERATION ACT—REGISTRATION OF DEATHS—APOTHECARIES' ACT.

In the House of Commons, on Monday,

Mr. Charley's Infanticide Bill was read a second time, Government consenting on the understanding that it shall be referred with the Bill of the Recorder of London, on the same subject, to a Select Committee.

Mr. Kay-Shuttleworth gave notice that on Tuesday, May 5, he would call attention to the urgent importance of the problems connected with the present condition and future improvement of the dwellings of the working classes, and would move, "That, in the opinion of this House, a necessity exists for some measure which will provide for the improvement of the poorest classes of dwellings in London; and that this question demands the early attention of Her Majesty's Government."

On Thursday, April 16,

Sir R. Buxton was to ask if Government intend to extend to Ireland the order now in force throughout Great Britain for the compulsory slaughter of all cattle affected with pleuro-pneumonia.

Mr. Mundella was to ask what steps are being taken to prevent the importation of adulterated articles of food into this country.

Mr. J. Talbot was to move for the return of the number of deaths in the metropolitan districts in the year 1873.

Sir J. Lubbock was to move for a Bill to amend the Apothecaries' Act.

THE WEBB FUND.

The following contributions have been received by Mr. Augustus Churchill, the Treasurer, to the 15th inst.:—

	£	s.	d.
Mr. Willington Clark ...	2	2	0
Mr. Stephen Olding ...	5	5	0
Miss May Olding... ...	1	1	0
Mr. H. Bodkin Poland...	5	5	0
Mr. Thomas Morson ...	3	3	0
Mr. W. J. Harris ...	2	2	0
Mr. John Morgan ...	5	5	0
Dr. Silver	2	2	0
Dr. Lavies...	3	3	0
By Dr. T. Smith Rowe—			
Mr. J. Chippendale ...	1	0	0
Mrs. Yglesias	1	1	0
Mr. H. Curling ...	1	1	0
Dr. Bramwell	1	1	0
Mr. T. Wright ...	2	0	0
Miss Wright	1	0	0
Miss E. Wright ...	1	0	0
By Dr. T. Smith Rowe—			
Miss J. Wright ...	1	0	0
Mr. Henry Thompson	10	0	0
Dr. Ransom	3	3	0
Dr. Tom Hewitt ...	2	2	0
Mr. A. E. Durham ...	2	2	0
Mrs. Andrew Duncan ..	5	5	0
Dr. B. Carrington ...	2	2	0
Mr. R. Crawford... ...	5	0	0
Mr. Thomas Knight ...	2	2	0
J. N...	5	0	0
	75	7	0
Amount previously acknowledged ...	1,808	14	6
Total	£1,884	1	6

We understand that the Sanitary Committee of the Vestry of St. Mary's, Islington, will on Monday evening next, at six o'clock, proceed to inspect the mortuary recently erected by the Vestry in the grounds of the chapel-of-ease, in the Holloway-road, which is now nearly ready for use.

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THE SICK AND WOUNDED FROM THE GOLD COAST.

HASLAR HOSPITAL, which is large enough on a push to hold 1500 patients, is a huge brick building on the opposite side of Portsmouth Harbour from the town itself, and just outside the old lines of Gosport, where it commands a fine view of Spithead. It is built in a curious style, something after that of the older portions of Greenwich Hospital. Apparently, its shape resembles what is called a hollow square, but in reality each of the two wings and of the central building is double, so that the building has in reality six divisions, three running parallel to three; but these are further broken up by the separation of the wings into blocks. The men seen here were sailors, marines, and marine artillery, the blue-jackets being most numerous. Some of those in hospital had been sent home from the Gold Coast for ordinary accidents and illnesses, but many were also suffering from privation and evils induced by the climate.

When the medical history of the war comes to be written, one of the most interesting chapters will be that devoted to the 110 marines who were sent out under the command of Colonel Festing. These men were sent at literally a moment's notice, with no special supply of articles of clothing save what they had in their bags. There were no provisions specially adapted for their use, and they had even no medical comforts. On them, too, fell the burden and heat of the day, and they were freely exposed during the rainy season. No wonder, then, that the force melted away, and that few remained alive and well when the troops re-embarked. During the earlier portion of their sojourn on the Gold Coast, the only rations of these troops were salt beef and pork, with bread baked with palm oil, which apparently had been prepared with no very particular care. The exigency no doubt was great, but the medical authorities might have been tested to the extent of seeing what they could do in preparing for the sickness to which these men would inevitably become liable; but even this was not done, and so dysentery and fever had their way among them. Some of these men were greatly prostrated, and even months after their return were practically invalids.

Many of the men sent home had already passed through the hospital and returned to duty, but some were still too ill for that. Among these was one we saw who had recovered from an unusually virulent type of malarial poisoning. In this there was no cold stage, vomiting seemed to take its place, and in most instances the patient speedily died. In some who had nearly recovered, the persistent headache was very troublesome.

The same common fact already noted with regard to the onset of malarious disease had been observed among the seamen and marines as among the soldiers—viz., that men would leave the coast well, but would be attacked at sea, and that, too, after being afloat for some time. This was sadly illustrated in the case of a poor young fellow who was in this way seized with dysentery, and who succumbed to the disease in Haslar Hospital. Everything was done to arrest the fatal discharge, but to no effect, and death followed.

Through the kindness of the authorities, we are able to give short notes of three cases which were received for treatment in Haslar Hospital. They were supplied to us by Dr. Fennell, and give some idea of the kind of cases seen. The surgical cases, with the exception mentioned last week, were all slight, save that one man had lost an eye, which was removed on the field, after the orbit was struck with a slug, and a small piece chipped off.

William T., aged 38, gunner, Royal Marine Artillery, was received on board H.M.S. *Himalaya* from the detachment of Marines at Elmina, on August 1, 1873, with dysentery. He soon recovered from this, and was able to assist in nursing the other sick till August 23, when he had remittent fever. Treatment at first, ipecacuan and opium; second, quinine in four-grain doses during the remissions, with marked benefit. He was invalided home for debility, and on reaching Haslar only complained of weakness. He remained in hospital twenty-one days, occasionally suffering from headache, and was discharged for two months' leave on September 15. He was readmitted from head-quarters on October 7, having had three or four paroxysms of fever whilst on leave, which he described as commencing with headache and coldness of the extremities lasting an hour; then heat followed by sweating during the next three hours; and lastly a sensation of cold all over for a few minutes. Upon October 11 he had a sharp attack of bilious vomiting, and there were symptoms of hepatic congestion. Paroxysms of fever recurred on October 31 and November 2, each being accompanied with pain in the right side of the thorax, cough, dyspnœa, and mucous expectoration. Towards the end of December the spleen was felt to be enlarged and tender; but he had no more fever, and slowly regained his strength. During the early part of this time he had quinine in ten-grain doses twice a-day, and latterly the citrate of iron and quinine, with a generous diet. Discharged cured, February 10, 1874.

George B., aged 27, gunner, Marine Artillery, was received on board H.M.S. *Himalaya*, at Cape Coast Castle, with debility after remittent fever, on July 22, 1873. He had one relapse on the way home, and after reaching Haslar, paroxysms of fever occurred on August 29 and September 3 and 4. Discharged for six weeks' leave on September 22. Readmitted from head-quarters on November 7, 1873, having had repeated attacks of fever since he left the hospital, each lasting a few days. There were evident signs of splenic enlargement, with tenderness, and he was greatly emaciated. He very slowly regained his strength, but had no more fever after admission. Took quinine in three-grain doses three times a day. Discharged cured, February 10.

James T., aged 28, private in Royal Marine Light Infantry, was received on board H.M.S. *Himalaya*, at Cape Coast Castle, on August 4, 1873, with remittent fever. He had no relapse on the way home, and was discharged on leave fifteen days after reaching Haslar. Readmitted on October 10, the fever having again attacked him in the form of quotidian ague. Had a very sallow complexion, with signs of hepatic congestion. Fever ceased on October 14, but on November 5 he had a severe attack of bilious vomiting, and fever again on November 28, December 6, 12, 18, and 29, with enlarged and painful spleen. The last paroxysm of fever occurred on January 4; and he was discharged cured on February 3. Treatment, quinine in various doses.

In conclusion, we must return our best thanks to the naval and military authorities for the kind consideration and courtesy which enabled us to make, with pleasure and comfort, the inquiries embodied above.

LETTER FROM THE GOLD COAST.

(*From our Special Correspondent.*)

REPORTS OF CASES ON BOARD H.M. HOSPITAL SHIP "VICTOR EMMANUEL," CAPE COAST CASTLE.

(*Continued from page* 382.)

Case 8.—*Acute Dysentery—Death—Post-mortem Appearances.*

SERGEANT W. B., Royal Engineers, aged 30, service seven years, including four months and a half on the Gold Coast. Contracted diarrhœa up-country on January 24, which shortly afterwards merged into dysentery, and he was sent down-country—a most fatiguing journey to a sick man under any circumstances, and especially so to a patient with dysentery. He had to be detained at several stations on the road, owing to his very prostrate condition, and when taken on board the hospital-ship, on the afternoon of February 15, he appeared to be in the very last stage of exhaustion. Stools very frequent, consisting of chocolate-coloured fluid tinged with blood; and at times clotted blood was passed in considerable quantities, attended with much tenesmus. Great tenderness was evinced on pressure being made over the cæcum and colon. Stimulants, with beef-tea, chicken-broth, jelly, and milk and soda-water, were freely administered and retained, hot fomentations and cataplasms were repeatedly applied, and ipecacuanha with opium prescribed; but he was too exhausted to derive more than temporary relief from any treatment, and was only kept alive by nourishment and stimulants. He died on February 20, six days after admission.

Post-mortem Examination of the Body, five hours after Death.—External appearances: Body much emaciated. Head: Great congestion of the vessels of the pia mater, with sub-arachnoid effusion at the upper and back part of the hemispheres. Chest:

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Old and firm adhesions of the surfaces of both lungs to the pleuræ, and bases of both adherent to diaphragm; both lungs much reduced in size and collapsed; heart normal in size, valves healthy, left ventricle hypertrophied; small patches of atheroma were noticed in the descending aorta. Abdomen: Liver very much enlarged, extending as high as fourth rib, and as low as three inches below the cartilages and across to left hypochondrium; substance smooth, and hepatic lobules distinctly marked; patches of white opacity were noticed over the surface, which was generally mottled in appearance; structure of the organ friable; slight reaction with tincture of iodine; capsule not adherent. Gall-bladder half full. Spleen not much enlarged; substance firm. Malpighian bodies well marked; slight reaction with iodine. Pigmentation of the mucous membrane of stomach, especially towards pyloric orifice. Small intestines healthy, except near the lower part of ileum, which was much congested. Cæcum distended with putrid bloody matter, and in a state of softening and ulceration. General thickening of the coats of the large intestine, with patches of yellowish deposit in places undergoing softening and ulceration, and extending from the ileo-cæcal valve to the rectum. The ulcers vary in size from a pin's head to one inch and a half in diameter, some being circular with a clean base and thin inverted edges, and others oval with a rough base and thickened irregular edges. The long diameter of the large oval ulcers in this, as in previous cases, was at right angles to the axis of the bowel. Coats of the bowel, especially near the rectum, were so soft as to break down under the pressure of the finger.

Case 9.—*Gunshot Wound of the Chest—Pyæmia—Dysentery—Death—Post-mortem Appearances.*

Private J. L., 42nd Highlanders, aged 24, with five years' service, of which two months were passed on the Gold Coast. Did not suffer on shore either from dysentery or fever. Was wounded at Amoaful on January 31. Admitted to H.M.S. *Victor Emmanuel* on February 16 in a very low hectic state, having suffered extremely on the journey down from the front (extending over eight days) in a hammock carried by untrained bearers, who, he stated, let him fall several times on the road. A circular wound, about an inch in diameter, was found to exist over the lower three-fourths of the middle of the right clavicle, with clean-cut and slightly inverted edges, presenting a foul, unhealthy appearance, and with a profuse fetid discharge. He was kneeling and taking aim when wounded, and the track of the wound seemed to be upwards and outwards over the clavicle, but much of the discharge came from about the coracoid process. The position, or even presence, of a foreign body could not be made out, although lodgment was most probable, and there was no reason to believe that the chest had been penetrated. A large bedsore was forming over the sacrum. Pulse 80; temperature 100°. During the 17th he had several rigors, and at 5 p.m. his temperature had risen to 101·8°. Passed a tolerably quiet night, but in the morning complained of severe pain in the right groin and knee. There was no swelling of the knee-joint, but pyæmic complication was feared. Skin dry and harsh; tongue brown; temperature at 5 p.m., 101°. February 19: Steadily sinking. Last evening there was considerable venous oozing from the wound, which had to be controlled by a pad and bandage. Discharge more scanty, bloody and fetid. February 20: Acute dysenteric symptoms, with high fever, set in last night. February 21: The dysenteric symptoms abated towards the afternoon, but the fever continued high. Temperature rose to 103° at 2 p.m., and remained so until 8 p.m., when it began to fall. He was very restless and delirious throughout the night, but sensible at 7 a.m., although almost moribund. About 10·30 a.m. venous oozing from the wound set in, and he expired a few minutes afterwards. Treatment consisted chiefly in the administration of brandy, port wine, chicken-broth, milk, and eggs. The wound was kept as clean as possible by carbolic acid lotions. Quinine was given throughout in doses of five grains three times a day, a small quantity of opium being occasionally added. For the dysenteric symptoms two powders, each containing pulv. ipecac. co. gr. x., with gr. v. of pulv. ipecac., were prescribed with apparent temporary relief.

Post-mortem Examination, four hours after Death.—Head: Vessels of pia mater congested all over the surface and between the convolutions. Chest: Lungs collapsed. Recent lymph-exudation over the posterior surface of right lung and at the base, where some congestion existed; and also recent adhesion (the size of a florin) of the apex of the right lung to the costal pleura, between the first and second intercostal spaces. Opposite to the latter adhesion, and lying on the pleura, was a foreign body about the size of a hazel-nut, which on examination was found to be a piece of ironstone; its seat communicated with the external wound by a considerable opening. There was bloody extravasation beneath the pectoral muscles adjacent to the wound. Axillary vein inflamed, thickened, and containing a large quantity of bloody pus. Surface of both lungs rough and nodulated, the nodules varying in size from a pea to a pigeon's egg, and found on section to contain purulent fluid. Deposits of pus, surrounded by congested firm lung-tissue, common throughout the substance of both lungs. Abdomen: Liver enlarged, surface smooth; substance pale and friable; slight reaction with iodine; no deposits found. Substance of the spleen soft and pulpy; capsule adherent. Both kidneys larger than usual, with congestion of the pyramidal portions. Small intestines healthy. Large intestines distended with flatus and bilious matters. Deep congestion of the cæcum, extending to the middle of the transverse colon, at which place were noticed three or four points of commencing ulceration, about the size of a millet-seed, and surrounded by bright red vascularity. Congestion and thickening of the sigmoid flexure of the colon, extending to the lower part of the rectum, with points of commencing ulceration. Mucous membrane of the stomach highly congested, thickened, and raised in places into large bullæ, full of yellowish serum; patches of ulceration, with some extravasated blood, near the pyloric orifice.

Case 10.—*Acute Dysentery—Severe Symptoms—Recovery.*

Surgeon L., aged 35, service fourteen years, including seven on West Coast of Africa, and eleven months on the present occasion. Ordered down from Sierra Leone last August to take part in the Ashantee expedition. Shortly after his arrival he was sent into "the bush," where he had to undergo much exposure and fatigue, with very often insufficient and badly cooked food. On his return he was attacked with fever and diarrhœa, and was admitted into hospital at Cape Coast Castle on December 15. He was treated there for acute dysentery with ipecacuanha, pulv. ipecac. co., hyd. c. cretâ; fomentations and poultices to abdomen; port wine, beef-tea, etc. Transferred on January to hospital-ship in a very prostrate and critical condition—pulse 86, respirations 16, temperature 102°; tongue very foul, coated with a dirty brown fur all over the surface, which was flabby, and showed the indentations of the teeth. There was uneasiness complained of over the abdomen, more especially in the right iliac region, which was intolerant of the slightest pressure; the inclination to go to stool was frequent, and attended with distressing tormina; the alvine dejections were very fetid, and seemed to consist of mucus mixed with scybala. A dose of castor oil and tincture of opium was prescribed, and a large linseed cataplasm applied over the entire abdomen. Great relief was occasioned by the latter, and the castor oil caused two motions from the bowels, which consisted of lumps of mucus and fæculent matter, with some shreds of lymph. On the night of the 5th he had a change for the worse; bowels were moved very often, the evacuations consisting of greenish lumpy mucoid matter. At 8 a.m. on the 6th, temperature was 99°, pulse 80, respirations 16. Passed a restless night, and suffered much from tormina; was purged three times; temperature at 8 a.m., 100·2°, pulse 68, respirations 18; at 5 p.m., temperature was 102·6°, pulse 88, and respirations 24. To have fifteen grains of hydrate of chloral at bedtime, and the same quantity after two hours, if required. Linseed poultice repeated and kept on abdomen during the night, to be changed every third hour. ℞. Mist. cretæ co. ℥vj., tinct. catechu ℥ijss., and tinct. opii ℥jss.; an ounce three times a day. January 8: Passed a very good night; bowels only moved once; temperature continues high, being this morning 101·8°, pulse 98, respirations 16. At 5 p.m., temperature 101·2°, pulse 94, respirations 18. On the 9th, had passed rather a restless night; bowels moved three times, and motions accompanied with much griping and tenesmus. Morning temperature 101°, pulse 100, respirations 16; at 5 p.m., temperature 103·4°, pulse 106, respirations 20. Astringent mixture and poultices continued, and five grains of quinine ordered once a day. On the 10th, had passed a very restless night, and suffered from acute pain over the cæcum, tending to become diffused, with frequent attacks of tormina. Bowels were moved four times; motions consisted of mucus and scybala, offensive in the extreme, and were

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accompanied with great tenesmus; vomited frequently during the night; tongue very brown and dry; appearance anxious, and general condition low. Morning temperature 99·8°, pulse 90, respirations 18; at 5 p.m., temperature 100°, pulse 82, respirations 18. Astringent mixture, fomentations, quinine draught, and hydrate of chloral at bedtime. From the commencement brandy and port wine were freely administered, with milk, eggs, beef-tea in small quantities frequently repeated, and jelly. On the 11th, had spent a good night, almost free from pain; bowels not moved; tongue deeply furred but moister; temperature in the morning 98·8°, pulse 80, respirations 18; at 5 p.m., temperature 100·2°, pulse 84, respirations 16. Treatment continued, spongio-piline with hot water and opium being used occasionally instead of linseed cataplasms. Two pints of chicken-broth, four ounces of brandy, six eggs, and two tins of preserved milk are consumed by him daily, and a special orderly has been in attendance upon him throughout, relieved by a second during the night. On the 12th, temperature at 8 a.m. 99°, pulse 86, respirations 18; at 5 p.m., temperature 100·6°, pulse 72, respirations 18. Signs of improvement are for the first time noticeable. On the 13th, at 8 a.m., temperature 99·4°, pulse 86, respirations 16; at 5 p.m., temperature 100·6°, pulse 86, respirations 16. Astringent mixture omitted, hydrate of chloral continued at bedtime, and quinine increased to ten grains daily (with dilute sulphuric acid and tincture of orange-peel), five grains at noon and five grains at 4 p.m. From this date until the 18th he improved slowly, but steadily. The severe attacks of tormina, which had hitherto rendered his existence miserable, gradually subsided, and finally left him; the tenesmus also disappeared; and the tenderness over the cæcum, where it had been most severe, became less. He lost that morbid craving for narcotics which had up to this time characterised him, as also the fancy for strange and unsuitable articles of diet; and his tongue began to clean. The temperature, however, still kept above the normal standard (98·8° to 99·4°); nor did it fall to the standard until January 24, by which time he had been up and going about for some days. On the 15th the quantity of quinine was increased to eight grains twice a day. Having suffered much in health from long service on this coast and from his late severe illness, he was recommended change of climate, and left for England by the hired transport *Elizabeth Martin* on February 6.

Case 11.—*Dysentery—Death—Post-mortem Examination.*

Assistant-Commissary M., aged 40, but looking much older, with a total service of twenty-two years, of which a considerable portion was spent in the tropics, had been four months on the Gold Coast, and enjoyed good health until January 24, notwithstanding very hard work and great exposure to solar heat and malarial influence. On that day he was attacked with dysentery, which would appear not to have been preceded, as it so often is out here, by "coast fever." He was sent down-country to Connor's-hill Hospital at Cape Coast Castle, where he was treated by ipecacuanha, pulv. ipecac. co., fomentations, beef-tea, stimulants, etc.; but as he did not improve he was transferred to the hospital-ship on February 1. He was carried on board in a very weak and semi-collapsed condition. Pulse small and compressible, 124; temperature 102°; skin moist and clammy. On examination the abdomen was found to be tympanitic, and tender on pressure over the cæcum and ascending and transverse colon. The bowels moved very frequently, but without much tormina or tenesmus; stools scanty, consisting of serum tinged with blood, with mucus and clots. He was ordered fomentations and Dover's powder, milk and soda-water as a drink, and beef-tea and brandy in small quantities at frequent intervals. In the evening he became worse, and hiccough set in. Champagne and egg-flip with brandy were freely administered, with a view to stimulate the flagging powers of life; but he never rallied after admission, although he took with avidity and retained everything that was given to him. Delirium set in during the night, followed in the morning by picking at the bedclothes, subsultus tendinum, and involuntary motions from the bowels; and at 12.45 p.m. on February 2 he expired.

Post-mortem Examination, five hours after Death.—External appearances: Height about five feet ten inches. Body well nourished; abdomen distended and tympanitic. Several livid patches of ulceration, probably scorbutic, on the legs, varying in size from a threepenny-piece to a florin. Head not examined. Chest: Beyond slight congestion of both lungs, nothing worthy of note was discovered. Abdomen: Liver enlarged; right lobe thicker than normal; left lobe flattened and elongated, and extending across the epigastric region; hepatic substance pale and friable; no reaction with tincture of iodine; capsule adherent; gall-bladder distended. Spleen small; substance soft, and capsule adherent. Kidneys healthy. Small intestines healthy, and contained bilious matters and gas. The solitary glands of the ileum, near ileo-cæcal valve, were large, hard, and elevated, and contained white exudation material. Large intestines from ileo-cæcal valve to the rectum were in a state passing into gangrene. The caput cæci was distended with putrid matter, and exhibited several large sloughs in the process of separation. In the colon there were large patches of separating sloughs, with occasional spots clear and free from ulceration. Oval and circular ulcers, varying from an inch to an inch and a half in diameter, were found throughout the colon, and down as far as the rectum, their long diameter being transverse to the bowel, and parallel to the muscular fibres. Coats of the gut were so thin and soft in places as to break down under the finger.

Case 12.—*Chronic Dysentery—Fever—Improvement.*

Assistant-Commissary S., aged 27, and with eight years' service, nearly all of which was passed in England; a sallow, delicate-looking subject, who had spent two months on the Gold Coast. Admitted to hospital-ship on January 27, with chronic dysentery, contracted in "the bush," where he had been a good deal exposed to sun and to malarial influences. Pulse 60, and weak; tongue foul and coated; temperature 98°; very weak and dispirited. Examination showed tenderness to exist over right iliac fossa; motions scanty, consisting of mucus and feculent matter tinged with blood, attended with considerable tormina and tenesmus. Treated with small doses of Dover's powder—five grains three times a day; corn-flour, jelly, milk, and soda-water, beef-tea in small quantities, and port wine. On the 29th had an accession of remittent fever in the evening, when five grains of quinine were prescribed to be taken every morning, with Dover's powders twice a day, and a quarter of a grain of acetate of morphia at bedtime. He improved under this treatment, with occasional small doses of castor oil, until February 5, when he was invalided, and embarked for England on board the hired transport *Sprite*.

Case 13.—*Fever—Supervention of Acute Dysentery—Treatment with Ipecacuan—Death—Post-mortem Results.*

Private W. P., 23rd Fusiliers, aged 28; service nine years. Landed at Cape Coast Castle on January 15, and marched up as far as Prahsu, when, on January 21, he was attacked with fever most probably of the bilious remittent type, but of this there was no history received. Was sent down to Cape Coast, and admitted on board the hospital-ship on February 1. Had slight pyrexia on admission, with tendency to diarrhœa. Ordered five grains of quinine with ten grains of Dover's powder three times a day. The 2nd and 3rd were passed without any return of the fever, but at 2 a.m. of the 4th slight shivering set in, with pains in the head, back, and limbs, followed by intense heat of skin (temperature 104°), urgent thirst, severe headache, but neither vomiting nor diarrhœa. Ten grains of quinine were given at 9 a.m., and a like quantity at noon and at 4 p.m. Temperature at 5 p.m. was still 104°, but sweating commenced during the night, and was very profuse. Had two or three loose motions. Temperature at 10 a.m. of the 5th, 103·6°. On the 5th, twenty grains of quinine were given; temperature at 5 p.m., 102·4°. On the morning of the 6th the fever had quite subsided (temperature 97·4°), but the looseness of the bowels had increased, and there was great prostration. Five grains of quinine and an astringent draught were given, and wine and beef-tea administered every half-hour; temperature at 5 p.m., 98·1°. The diarrhœa continued throughout the night of the 6th, in spite of astringents and opiates; and in the afternoon of the 7th acute dysentery supervened. Temperature, which was at 10 a.m. 97·5°, rose suddenly to 102·6°. Ipecacuanha was administered in half-drachm doses at two hours intervals, and a third dose of one scruple at 8 p.m. This medicine produced very little sickness and no vomiting, but gave great relief to the abdominal pains and straining. On the 8th the motions continued very frequent, but were unattended with tenesmus. There was little abdominal tenderness; skin moist; tongue pointed, red at tip and edges, furred down the centre; temperature at 10 a.m. 100°, and at 5 p.m. 98·9°. Ten grains of pulv. ipecacuanha were given at 9 a.m., and repeated at noon. On the 9th the bowels were much quieter, but there was slight straining after each motion;

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alvine dejecta liquid, of a dirty brown colour, and very offensive; great general depression; no vomiting. Ipecacuanha continued in five-grain doses every third hour, and wine and beef-tea every half-hour; temperature at 10 a.m. 98.2°, at 5 p.m. 99°. During the night the fluid from the bowel began to come away involuntarily; it was of a chocolate colour, and most offensive. Temperature at 9 a.m. 97·2°, and at 5 p.m. 99°. From this date he never regained power over the evacuations. One day he appeared a little better, and the next day he was worse. The motions, also, frequently changed their character, being at one time pure serum, at another blood-fluid and clotted; but generally they were of a brownish-chocolate colour, and very offensive. He suffered no pain, and took nourishment with avidity; indeed, to the latter circumstance and to most careful nursing alone may be attributed the fact that he held out so long. He finally succumbed from pure exhaustion at 7 a.m. on February 28. His temperature from the 12th until the last ranged from 97° to 98°, only twice rising above the latter.

Post-mortem Examination, eight hours after Death.—External appearances: Great emaciation. Head and Chest: Nothing worthy of special notice. Abdomen: Liver smooth on the surface and mottled; left lobe thin and elongated, with markings on upper surface; substance of the liver firm; slight reaction with tincture of iodine. Gall-bladder distended. Spleen small; substance soft; capsule adherent. Cortical substance of right kidney congested. General congestion of the mucous membrane of stomach; patches of pigmentary deposit in the duodenum. Congestion of the ileum, increasing towards the caput cæci. Caput cæci very much thickened, and studded with circular ulcers, varying from a line to an inch in diameter. Extensive ulceration of the ascending colon, with large clots of extravasated blood adhering to the bottom of the ulcers, especially in the transverse part of the arch. General ulceration throughout the whole of the large intestine. Coats of the bowel much thickened; very soft, and easily torn.

FROM ABROAD.

Non-Contagiousness of Cholera.

Professor Austin Flint, sen., read recently, before one of the New York medical societies, an interesting essay (since published in the *New York Medical Journal* for February) "On the Logical Proof of the Contagiousness or Non-Contagiousness of Diseases." He uses the phrase "logical proof," in the first place, in contradistinction to proof from "demonstration"—that is, the proof that a disease is contagious by the fact that it can be communicated by inoculation, as in the case of syphilis, gonorrhœa, small-pox, and some cutaneous diseases. He also uses the term in contradistinction to mere conjecture, hypothesis, or theory. Thus, there are certain diseases, the belief of the contagious character of which (entertained by some persons) rests upon no adequate proof or logical support. Thus, with regard to yellow fever and cholera, the mutability of current opinion regarding their contagiousness shows how much this is a mere matter of conjecture or hypothesis. Again, the logical proof has nothing to do with our knowledge of the special causes and essential nature of diseases, of which for the most part we are entirely ignorant.

Having explained what "logical proof" is not, he proceeds to the consideration in what it consists as applied to the determination of the contagiousness or non-contagiousness of diseases. These may be communicated in four different modes, viz.—1. By immediate contact, as when syphilis or gonorrhœa are communicated. 2. By impalpable emanations which are diffused and retain their morbific power within a certain area called the infecting distance. 3. By fomites. 4. By a virus contained in the excreta with which water used for drinking or culinary purposes may become polluted, or which, in a dried state, may contaminate the atmosphere at a greater or less distance from the source of the contagious material. Dr. Flint lays down several propositions as to the existence of this logical proof, which we here transcribe, although our want of space will prevent us from availing ourselves of his numerous illustrative observations. They are as follow:—

"1. It is logical proof that a disease is not communicable by either the first or second of these four modes—that is, neither by immediate contact nor by impalpable emanations from the body (an infectious miasm)—when, on the one hand, of those who are brought into contact or close proximity to patients affected with the disease, a considerable portion do not have it; and when, on the other hand, of those who have the disease, a considerable proportion are known not to have been brought into contact or close proximity to patients affected with it. 2. It is logical proof of the non-contagiousness of a disease, that, out of a large number of instances in which persons going from situations in which the disease prevails, to situations more or less distant in which previously there were no cases of it, and being seized with the disease in the latter situation, no other cases therein occur. 3. It is logical proof of the diffusion of disease not being due to contagion that the history of epidemics shows outbreaks simultaneously and in quick succession in localities widely separated, and between which there has been no connexion by human intercourse. 4. It is logical proof of the continuance of epidemics not being dependent on contagion that their duration is determined by self-limitation. 5. It is logical proof against contagiousness that an epidemic shows a progressive increase in the severity of the disease up to a certain maximum of intensity, and then a progressive decrease in the severity, until the epidemic ceases. 6. It is logical proof of an epidemic disease not being contagious, that the diffusion over a large area takes place with great rapidity, and that the disappearance of the disease is rapid and complete. 7. It is logical proof of the non-contagiousness of a disease that it prevails exclusively, or, as a rule, at certain seasons of the year; that its prevalence is restricted within certain geographical boundaries; and that, having undoubtedly a special or specific cause, this cause requires for its efficiency auxiliary causes, or certain 'localising conditions.'"

Judged by these rules, Dr. Flint believes that the non-contagiousness of cholera seems to be conclusive. With respect to the communicability of the disease by drinking-water, he observes, quoting one of Mr. Simon's statements concerning the effects of the water as supplied by the Lambeth and the Vauxhall Companies:—

"Here, as in other instances, impure drinking-water is undoubtedly shown to contribute to the diffusion of cholera; but, so far from proving a contagium in the water, the logical proof is the opposite of this, inasmuch as, of the population receiving pure water, 37 in every 10,000 were affected and died with cholera. An analysis of the facts bearing on the question raised will probably always show that polluted water is to be ranked among the most powerful of the auxiliary causes of cholera. I am not aware that we have the history of any outbreak which embraces a combination of circumstances affording logical proof that the disease was produced by a contagium in drinking-water. The most to be said of the question is, it is not impossible that what has been proved respecting this mode of communicating typhoid fever may be true of cholera; but the logical proof is yet to be afforded. To consider that, in general, the disease is diffused by means of a contagium in drinking-water, is manifestly absurd. . . . It seems to me that Pettenköfer's 'ground-water theory' may be disposed of in a few words. Certainly it cannot be applicable to all outbreaks of cholera. If it be applicable to any, it is only to a certain proportion of instances. Now, epidemic cholera undoubtedly has a special or specific cause, which must always be present whenever the disease is produced. It has not entered into the scope of this paper to consider in what consists the special cause—whether it be a chemical product, a living organism, or dead organic matter. Let the cause be either of these, facts show conclusively that, in a large proportion of instances, it is impossible for the cause to have any connexion with the dejections as its source. To suppose, therefore, that it has such a connexion in a few instances, is theoretically not probable, and without logical proof the supposition rests upon a fanciful hypothesis.

"In conclusion, let it be borne in mind that, although not contagious, cholera is a portable disease. The special cause, whatever it be, is transported in ships, clothing, merchandise, etc., and, finding local circumstances favourable for its multiplication or increase, it gives rise to cholera epidemics. The special cause is destroyed by disinfectants; and the disease may in this way be 'stamped out.' This was demonstrated triumphantly in New York in 1866. Successful disinfection by no means proves the contagiousness of a disease. Yellow fever may be in the same way 'stamped out.' The prevention of cholera epidemics involves prompt and efficient

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disinfection, together with the removal of auxiliary causes. Whenever, in conjunction with these measures, premonitory symptoms are invariably at once arrested by simple medicinal and hygienic treatment, this being secured for all the members of a community by house-to-house visitation, the disease will be found to be preventable and controllable."

Paracentesis for Recent Pleuritic Effusion.

M. Bucquoy terminates a clinical lecture delivered at the Cochin Hospital (published in the *Union Médicale*, April 2 and preceding) on "Capillary Puncture with Aspiration as a means of treating Recent Pleuritic Effusion," with the following observations:—

"Having passed in review the facts, now numerous, which have come under my notice, I do not think that I have omitted noticing any of the objections which have been brought forward against the practice of thoracentesis applied to recent effusions. You have been enabled to convince yourselves that this method of treatment in nowise presents the inconveniences that might have been supposed, while the results which have been obtained plead victoriously in its favour. It will now not be without utility if we bring into relief its indubitable advantages and formularise its indications.

"1. The utility of puncture of the pleura can be doubted by no one when the effusion is somewhat considerable. An amount of liquid sufficient to forcibly compress the lungs and displace the heart, is for the patient a constant menace of serious accidents, from which he cannot too soon be relieved. The evacuation of the liquid immediately removes all danger of asphyxia or syncope, and prevents those complications that may be the result of persistent obstruction of the circulation and respiration. Such are the ordinary indications of thoracentesis; but the practice of capillary puncture with aspiration allows of our fulfilling them in a more certain and easy manner and one less painful for the patient. When to these advantages we join the very real merit of putting an end to hesitations that are often mischievous, the utility of this new method is obvious in cases in which the effusion is abundant.

"2. When the effusion has not attained proportions that render thoracentesis peremptory, if the quantity of liquid is sufficient to render the propriety of the operation a matter of discussion, you almost always should incline towards the affirmative sense. Here are the principal advantages of puncture in cases in which the effusion is in a medium quantity and of recent occurrence:—Every pleurisy, in which active intervention and the ordinary medical means have not prevented a somewhat considerable accumulation, is a disease which will necessarily be of long duration. The absorption of the fluid will take place slowly, and consequently for a long time the lung will continue compressed, and even tied down by more or less dense false membranes, which will have had ample time to become organised. If, happily, you intervene and discharge the accumulated serosity, the lung immediately resumes its proper volume; and the organisation of the false membranes, when the two surfaces of the pleura are brought in contact, so far from being a danger, proves the most favourable condition for recovery, uniting the pleural surfaces as if by primary intention, so that the liquid is no longer interposed between them. You have seen that in fifteen times out of twenty-one cases a single puncture sufficed to procure a rapid and definitive cure; so that experience demonstrates the advantages which I seek to render prominent. But if, as is too commonly the case, the liquid is reproduced, the puncture will still have been useful by producing a temporary cessation of compression of the lung; and as there is nothing to prevent having recourse to the operation as often as necessary, you are always able, by preventing accumulation of liquid in the pleura, to prevent the formation of those indurated surfaces (*coques épaisses*) which become an invincible obstacle to the return of the lung to its normal volume. By this means, also, you may prevent two of the most unfavourable results of pleurisy of prolonged duration—the deformity of the chest by the sinking in of the wall of the affected side, and especially the passage of the pleurisy into the chronic condition. If the absorption takes place slowly, and if the lung is not able little by little to regain its primary volume, it will be the wall of the thorax itself on which will weigh the enormous weight of the atmospheric pressure. Hence arises the permanent deformity which is especially common in young subjects whose ribs have still great suppleness and elasticity. When, however, these offer more resistance, as is the case at a more advanced period of life, the two surfaces of the pleura no longer being able to come into contact, the effusion persists indefinitely, and may, after more or less time, undergo a purulent transformation—the ordinary and too often fatal termination of chronic pleurisy.

"3. It results from the facts which we have analysed that a single puncture often suffices for the cure of a pleurisy, and this is usually so rapid as to render the employment of other means of treatment unnecessary. But do not infer from this that I wish to proscribe the treatment of pleurisy by the medical measures usually adopted in this disease. On the contrary, I have expressly insisted on the utility of antiphlogistics, diuretics, and revulsives during the first stage—that is, in the inflammatory period of pleurisy; but believe me that these measures cannot be continued with impunity during the indefinite duration of the period of effusion. If by puncture you are enabled to suddenly arrest the progress of the disease, are you not rendering an immense service to the patient by sparing him the repeated application of blisters, with their ordinary accompaniments of boils, erysipelas, etc.? Inquire of those who have undergone both modes of treatment, and you will certainly find that the simple puncture of the trocar is preferred.

"4. Finally, there is a point to which I attach a capital importance, that by means of capillary thoracentesis with aspiration the cure of the pleurisy takes place so rapidly. For to abridge its duration is to abstract the patient from the influence of causes of debility, which are met with not only in the persistence of a disturbed hæmatosis, but also in his prolonged confinement to bed, low diet, etc.,—circumstances singularly favourable to the explosion of any diathesic accidents to which he may be liable. Too frequently a pleurisy is but the first stage in the evolution of pulmonary tubercle; and certain it is that the lesions of the parenchyma will manifest themselves with greater rapidity, and will be of greater gravity, in proportion to the delay with which the course of the pleurisy is arrested."

GENERAL CORRESPONDENCE.

DR. PROTHEROE SMITH AND THE LATE PROFESSIONAL STAFF OF THE SOHO-SQUARE HOSPITAL.

Letter from Dr. Protheroe Smith.

[To the Editor of the Medical Times and Gazette.]

Sir,—Referring to the editorial article on "The Hospital for Women" in the *Medical Times and Gazette* of April 4, since my name has been brought prominently forward in your remarks, I feel it to be due not only to myself and to my late colleagues, but to the profession generally, to publish a statement of facts in relation to the late unhappy occurrence, so far as I am personally concerned. I therefore request you will do me the favour to give this a place in your next issue. I have sent similar replies to other journals in which I have been in like manner mentioned. With regard to the amended "By-law 19," I was wholly ignorant of its purport until December 17, at the meeting of the Committee, after notice of such motion had been given, and had been afterwards adopted and made law at the previous meeting of December 6, at which time I was in attendance for several days on a patient in the country. When it was brought to my notice I begged at once to forego the distinction given to me as founder of the hospital, and to be put on the same footing as my colleagues; and I immediately protested against the amended "By-law 19." As my efforts to counteract it were, however, unsuccessful, I tendered my resignation as member of the Committee, but at their urgent request I consented to withdraw it. Feeling, however, it was not incumbent on me to bear the burden of responsibility without the power of giving effect to my efforts, I ceased to attend their meetings, and on January 7 I joined my colleagues in a letter to the Committee, stating our objections to the amended "By-law 19." Although afterwards it was made wholly inoperative during the tenure of office of the then present medical staff, I felt it to be right to discontinue the position I held as sole medical member of the General Committee, and therefore I again tendered my resignation on March 28, which was accepted. I was induced to withhold my consent to the action of those members of the Medical Committee who have since left the hospital, because they rejected the rules of the customary Medical Committee, and took upon themselves, as

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medical staff, the power of an inquisition to make judicial inquiry into the private character of the matron, and to call upon certain nurses to corroborate their charges. They also requested the house-physician, who had before resigned his post, to give a written statement of his reasons for so doing, and of his opinion of the matron and nurses, and that although I had strongly protested against such proceedings as both beyond and beneath our province as physicians and surgeons, and as an usurpation of the rights of the General Committee, who alone had the power to adjudicate in such matters, and before whom their complaints should have been carried. I was confirmed in the conviction I had acted rightly, when, on my return to town, I was told that my colleagues had arranged to tender their resignation should their appeal to the Committee, with the house-physician's letter, fail to gain their point. Although this resolution, which was submitted to me, was not acted upon, yet I could not join these gentlemen in what I regarded to be "gratuitous and uncalled-for," inasmuch as, with the exception of the amended By-law 19, I differed from them entirely—viz., as regarded our right to arraign the matron and nurses, and to hold out the threat of resignation to the Committee, and thus to injure a charity with which we had been so long associated, and through whose instrumentality such extensive good had been effected.

After this statement I hope it will be seen that in the part I have taken I have been actuated by a desire to do what is right towards my colleagues and the profession, and at the same time to promote the welfare of a charity in which I have so long taken a deep interest. I am, &c.,

PROTHEROE SMITH.

42, Park-street, Grosvenor-square, April 11.

[*** Dr. Protheroe Smith must permit us to remind him that no member of a committee can rid himself of "the burden of responsibility" by simply ceasing to attend the meetings of the Committee. Dr. Smith gave the Committee his special support in the action they were taking when he consented to withdraw his tendered resignation, and his wilful absence from the Committee meetings could not in the least lessen his "burden of responsibility." Further, we must, for ourselves, most distinctly repudiate the doctrine, apparently held by Dr. Smith, that a scrutiny into the manner, *quâ* efficiency, in which the nursing of a hospital is carried on, is beyond and beneath the province of its medical staff. It is to be remembered, also, that in this instance the staff had in vain endeavoured to get the Committee to make, or to accept their assistance in making, that investigation into the nursing of the hospital which they, as professional men, believed imperatively and urgently necessary.—ED. *Medical Times and Gazette.*]

A QUERY FOR SURGEONS.

LETTER FROM MR. CHARLES SEDGWICK.

[To the Editor of the Medical Times and Gazette.]

SIR,—I have a case of femoral aneurism in the middle of the thigh, in a female lately admitted to the Union-house, seven months in the family way. What treatment could you or any of your readers advise? I have applied pressure and flexion of the leg with bandaging; still it is increasing and giving a great deal of pain. Of course her condition would prevent operating unless necessity should really require it. I am, &c.,

Hollingbourn, April 13. CHARLES SEDGWICK.

OWING to the prevalence of small-pox in Birmingham, the Committee of the Queen's Hospital have entirely prohibited the usual Wednesday visiting of patients, and restricted the Sunday visiting to two friends of each patient.

IN the Registrar-General's (Queensland) thirteenth annual report for 1872, it appeared that the deaths numbered 1936, of which 1238 were males and 698 females. This great disproportion in the deaths of the sexes is attributable to the excess in the male population. The highest mortality obtained in the first and third quarters. The loss of life amongst children was so great that it deserved especial attention at the hands of the medical profession, as in all young colonies deaths from old age are comparatively small.

REPORTS OF SOCIETIES.

THE PATHOLOGICAL SOCIETY.

TUESDAY, APRIL 7.

Sir W. JENNER, Bart., M.D., F.R.S., President, in the Chair.

ADJOURNED DISCUSSION ON CANCER.

DR. MOXON said that the course of the debate had been surprising to him, on account of the amount of agreement amongst the speakers. He could compare it—not certainly to opponents bringing forward in any form opposite views, but to rival painters representing different parts of a scene. It was not with that impression that he had approached the subject of cancer. He thought that there was something to discuss, especially as to its origin. True, Mr. De Morgan had disregarded the natural oppositions and incompatibilities of the very views which he brought forward; and the subsequent speakers had done very much the same. To his (Dr. Moxon's) mind, it had always appeared that local and general views are not compatible, and cannot be held at the same time by the same person. The question, he believed, might be put in this way:—Does the first cancer that appears in the patient's body generate the succeeding? or is there a general state of the whole system which is ready to put out cancer anywhere, and puts out the first as it puts out the second and third? He thought the two are irreconcilable, and that their opposition has an important bearing on surgical practice. If cancer arise as a little patch in a person previously healthy, and thence spread through the frame so that life is hopeless, surely the surgeon will hasten to remove it. On this view he could understand Mr. Hutchinson's strong speech, who seemed to be the only true localist yet come forward. Mr. Hutchinson had argued in favour of his view because it would lead surgeons to operate. But if we took the opposite view—that there is a general disease to begin with—why should we operate at all? This was the great question they came to discuss; and they must take the one side or the other. But unfortunately there was a third road which they might follow: they might adopt some ambiguous word, and cover with it the essential difference between the two views. Such a word had been brought in—the word "constitutional." Dr. Moxon wished to protest with all his power against the use of "constitutional," as opposed to "local." It had been argued in the discussion that unusual reaction of a person's tissues after injury indicated a constitutional peculiarity in him. He objected to this. There is no opposition whatever between constitutional and local. What could be more constitutional than one's great-toe or one's liver? He would even say that nothing is constitutional that is not local. But, without dwelling longer on this point, there was a good question before them, and it was as follows:—Drop the word "constitutional," recognise cancer as a disease which, first local, becomes at last general; and then the question would be, Does the general condition precede and cause the local, or does the local condition precede and cause the general? This question was a good one and a soluble, and he hoped might be solved by the future work of the Society. At present some held the local view and some the general, and they competed which should show the earliest appearance of cancer in the frame. Dr. Moxon himself believed that cancer appears earliest in a certain locality, and that the danger of cancer consists in the extension from that locality; that cancer becomes general and fatal through the influence of a part first cancerous. In other words, he was strictly a localist. He would bring forward some arguments in support of this view. All would follow these propositions—first, that cancer spreads in the part; secondly, that cancer runs along the lymphatics to the glands; thirdly, that cancer makes its way along the bloodvessels to organs remote through the medium of the circulation. All these facts were certain. Now, if these were allowed to govern their ideas, what room would there be for a general carcinosis? But there was another kind of evidence. Let the following instance be taken:—A man gets a big cancer in his rectum, and smaller cancers in his liver; the former has, from its size, evidently preceded the latter. On examination the cancer of the rectum is found to be rectum-tissue—the same structure as the Lieberkühnian follicles of the mucous membrane. On examining the liver a generalist would expect to find liver-tissue in the cancerous spots; but what is found is rectum-tissue here also—rectum-cancer in the liver. He

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would give another instance:—A man in Guy's Hospital had a monster tumour in the arm near the shoulder. Post-mortem he was found to have small tumours in the lungs. The bony tumour of the arm proved to be osteo-chondroma (of Virchow); and the lumps in the lungs were bony too. It was bone that had grown in the lungs, and it was in bone that the disease had commenced. How could we escape the conclusion that in this case the cancer arose in bone, and that bone instilled its nature upon the lung? He would use Mr. Simon's expression, and say that the bone had spermatised the lung. This, then, was a very powerful argument in favour of the local origin of cancer—that the first cancer has the likeness of the part in which it appears, and the secondary cancers have the likeness of the first. But there was another point which ought to be clearly stated. [Dr. Moxon here showed a drawing by himself, which demonstrated that in the process of cancerous change a transformation of the individual elements is traceable. The liver-cell could be seen turning into a cancer-cell—that is, the gradations could be perceived.] Surely this was a very strong argument that the cells can be seen to change as they stand from liver to cancer. Now, what was there opposed to these facts? For, if these facts could be applied to all cancers, then no room would be left for a general carcinosis. But cases did occur where all this could not be made out; and the generalist, seizing on these, invaded the whole field from that doubtful corner. Dr. Moxon did not wish to touch upon the arguments in Sir James Paget's speech. But he had said "cancer is hereditary," and "so also are enchondromata and fatty tumours"; and this could be disposed of by replying, How can what is common to both groups of tumours explain the peculiarities of one? Sir James Paget had added that cancer was hereditary in a peculiar way—by spreading over a variety of organs in the various members of the family. Dr. Moxon would first reply to this that he was not prepared to find that Sir James Paget had come to consider one-third of cancer cases as hereditary. He had quite recently been informed by Mr. Birkett that he was not able to say with any confidence that cancer was specially hereditary at all. This was very astounding. Now, in regard to the manner of inheritance, he (Dr. Moxon) would remind the members that Mr. Hutchinson had pointed out, on the first evening of the discussion, that warts appear in cancerous families. If they do, might not fatty tumours, sarcomata, etc., do the same? And, therefore, what applied equally to the malignant and non-malignant could in no degree explain the peculiarities of the malignant. Sir James Paget's last point had been that cancer must be general because it so constantly recurs. But the localists showed how this was possible—by a portion being left behind at operation, or by operating after secondary disease has begun. Sir James Paget had also said that cancer must be general because a wound produces cancer in a part, just as tubercle, syphilis, etc., might develope from injuries. Now, Mr. Simon had given the Society proofs of the local origin of tubercle less than three years ago; and they had had abundant evidence that tubercle is an accidental development from a really local disorder. Dr. Moxon would be inclined to go with Mr. Simon, and classify cancer, syphilis, and tubercle together as disorders which become very rapidly generalised from a local origin. In conclusion, Dr. Moxon said he wished to show how wide were the bearings of the question under discussion. There was the analogy between cancer and the epidemic fevers. How do the latter break out? Do they arise in a local unit of the body corporate, and thence spread contagiously, or do they infect the body corporate as a whole, and burst out in particular men? There was a close analogy between the questions. He felt satisfied that, when they came to be solved, some general law governing the whole must be discovered.

Mr. Erichsen said that Dr. Moxon's remarks had tended to confirm his views as to the localisation of cancer. He ranged himself on the side of the localists. He considered it useless to go over the same ground as previous speakers with regard to localisation; but there were some points which he would allude to, as they had been passed over, and at the same time had a very marked bearing on the recurrence of cancer. First there was the extreme vascularity—not of the cancer-tumour, but of the neighbouring structures. Every operating surgeon knew the difference in this respect between a scirrhus of the breast and an adenoma. Very small cancers often furnished a very large quantity of blood. This local hyperæmia might be considered as an argument in favour of the primary localisation of cancer. It must be referred either (1) to the cancer acting as a foreign body, or (2) to the demand made on the tissues by the growing organism, which requires much blood. The first supposition was untenable, as tumours more "irritating" were to be found without any great vascularity around. The second supposition, therefore, must be accepted; and it favoured the idea of the local origin of cancer. And it had another effect—this hyperæmia,—it tended early to wash the cancer elements into the general circulation, thus rendering the constitutional cachexia early recognisable, even as early as the local disease. This condition of hyperæmia was also favoured by the cancerous growth not being capsuled. This want of a capsule also tended to the speedy recurrence of the cancer after removal. There was no limitation to a cancer from the first moment of its development: thus, the small bodies in the skin beside a cancerous tumour never shelled out, but were incorporated with the neighbouring tissues; and if one went back to the primary elements of a cancer, one would find nothing to prevent the extension of a second cell—a migratory cell which would rest at last, and develope to contaminate the system. From the very first this process had probably commenced; and so one had but little success in operating. Mr. Erichsen would hesitate to accept Sir James Paget's estimate of one of non-recurrence in 500, yet it might be approximate. Before the diagnosis is made and the operation undertaken, the washing away, migration, etc., have been in activity. Another point to be noted was the hereditariness of cancer, where there was much ambiguity as well as diversity of opinion. Velpeau, more than twenty years ago, had given as the result of his observations the very same figures as Sir James Paget—namely, that cancer is hereditary in one case in three. Mr. Erichsen would give no opinion personally on the matter, but said that it was doubtful how far cancer is hereditary; and even, after all, two-thirds of the cases would remain unaccounted for in this way. And it was necessary to separate the two conditions; hereditary condition was not by any means a constitutional state. Sir James Paget had alluded to another point with great sagacity: that the hereditary tendency to cancer might skip a generation because the parent in that generation had not reached a cancerous age; but this might be the case with any local condition not cancerous, such as premature baldness. Too much importance, therefore, must not be put on hereditariness of cancer. One more subject in connexion with cancer was very important, but had not been alluded to—namely, that of its geographical distribution. Mr. Haviland had shown that there are cancer-fields in England, and that these are associated with geological peculiarities. This seemed a very promising subject to work at in determining the real origin of cancer; the geographical distribution of cancer used as an argument would of course cut both for and against local and general views. In conclusion, Mr. Erichsen said there was no doubt that cancer was closely allied in general appearance and course to ordinary syphilis. Just like syphilis, cancer appeared to affect certain individuals in such a manner that it can scarcely be eradicated. Beginning locally in some constitutions, cancer would run a most virulent course, and operation might not be able to arrest it. It would appear, therefore, that there are certain constitutions that afford a far more fertile soil for the development of the local poison, and through which it developes itself with unusual vigour. And there is a certain frame that a surgeon gets accustomed to see—stout and ruddy, and fairly healthy-looking—that at last comes to the eye as a typical constitution in which cancer is likely to occur, and, once developed, will runs its course unchecked.

Dr. Crisp said he was astonished to hear Mr. De Morgan say that cancer is so pre-eminently prevalent in women that 90 per cent. of the cases of the disease affect the uterus or breast. This was fallacious. The records of the Society were scarcely to be trusted to, but taking the Registrar-General's returns it was found that the proportion was about eighteen males to forty-two females. It was a melancholy fact that the number of cases increased yearly. In respect of geographical distribution, Dr. Crisp doubted very much whether locality has much to do with cancer: the population of some districts intermarried much, and so the prevalence of cancer might be easily accounted for among them. As regards age, statistics did not quite square with the notion of Sir James Paget that cancer is a disease of degeneracy and old age; a very large proportion of the subjects are under thirty years of age. Was cancer a blood-disease? Dr. Crisp supposed no disease affects the human body without alteration of the blood. Cancerous tendency was shown to be inherited by such cases as the

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following:—A blow on the breast is followed by cancer in a woman of cancerous family, but twenty blows may not set it up in another of healthy stock. Sir Benjamin Brodie found, from an experience of 500 or 600 cases, that operation for cancer of the breast rather tended to shorten life. As for cancer being parasitic, Dr. Crisp said he thought it positively a parasitic disease, and might be called so; it was a disease preying upon the body. He was anxious to speak of cancer of the lower animals, but would reserve this point for a future meeting. Cancer was very rare among the wild animals, but not at all uncommon among our domestic animals. Dr. Crisp had himself examined 230 quadrumana and never found cancer. In dogs he had known the female with cancerous breast transmit the disease to her pups. Dr. Crisp thought that "constitutional" was the best word to use.

Dr. Moxon said there was a telling argument in regard to age. The argument of the last speaker was that old age was hereditary; cancer belonged to old age; therefore, cancer was hereditary. Perhaps Dr. Crisp's monkeys were young.

The President asked if the monkeys were young?

Dr. Crisp replied that a monkey's age was not known, and he could not say.

Mr. Howard Marsh said that it seemed to him that both Dr. Moxon and Mr. Erichsen had taken up the explanation of the spreading of cancer, and not of its origin. On the previous evening the first appearance of cancer had been under discussion, and Mr. Arnott had explained its spread in a way which was probably satisfactory to all. The question was—How is it developed in a primary state? He would take exception to Sir William Gull's argument from the ovum. Sir William Gull had said that cancer cannot be a blood-disease, because no blood is present at first in the ovum. But he would answer—Neither are there limbs; and so the blood, as well as the limbs, might receive the tendency to the formation of cancer. Sir William Gull had also said that cancer might be constitutional in the ovum, but could not in the developed body, because it must be somewhere localised. But surely the blood was in this sense a locality, and cancer might pass into it as into a limb. Again, some light might be thrown upon the question by the consideration of specific cases. He would mention three remarkable ones from Sir James Paget's book. A man injured—perhaps broke—his fibula, and cancer was almost immediately developed at the seat of lesion. A boy was struck on the eye by an oyster-shell, and died in a few days of fungoid cancer of the orbit. A boy wrenched his knee, and after a few days had cancer of the joint. How could such cases be explained on the local view? Were these persons struck at the very spots where they were susceptible of cancer? On the other theory, the cases were easily explained: these people had a general tendency to cancer, which they perhaps inherited, and on the receipt of an injury the tissues became an appropriate soil for the development of the disease. In conclusion, Mr. Marsh remarked that Mr. De Morgan had mentioned the rarity of cancer of both mammæ in the same subject. Now, there were at that moment two such cases in St. Bartholomew's Hospital. In one of the cases, general symptoms appeared simultaneously with the first local outbreak in one breast; in a week or two the other breast was affected; and now the woman was dying of general cancer. This case seemed to show that there must be a general tendency to the disease.

The discussion was then adjourned.

OBITUARY.

DR. W. E. DILLON, R.N.

The *Dublin Daily Express* thus alludes to the premature death of this rising young naval officer:—"Dr. Dillon was second in command of the Livingstone Search Expedition, to which he had been appointed in the year 1872; and it appears, from letters which have been received from Africa for some time past, that he had repeated attacks of fever of the severest character. Having somewhat recovered, he had started with Lieutenant Murphy for Zanzibar, with the body of Dr. Livingstone, when he was struck down by the final attack, during which the lamentable occurrence which has been announced took place. Dr. Dillon entered the Royal Navy as surgeon in 1860, and after several years of foreign service, obtained leave of absence to enable him to take part in the African expedition. He was the son of W. Sandys Dillon, Esq., of Brookfield, county Dublin, and nephew of the late Hon. Sir William Jeffcott, Recorder of Penang and Singapore, and of the late Sir John Jeffcott, Chief Justice of Adelaide. Prior to this expedition Dr. Dillon had travelled extensively in Africa, South America, and India, and his enterprising disposition, cheerfulness of temper, and fertility of resource eminently qualified him for the arduous duties of an explorer. His affectionate and true-hearted character had endeared him to all his relatives and a wide circle of friends, and his sorrowing parents may be assured that they have the deepest sympathy of the public in their heavy affliction."

MEDICAL NEWS.

Royal College of Surgeons of England.—The following gentlemen passed their primary examination in Anatomy and Physiology at a meeting of the Court of Examiners on the 10th inst., and when eligible will be admitted to the pass examination:—

Batchelor, Henry T., student of the London Hospital.
Blackman, J. George, of the Charing-cross Hospital.
Blaney, James, of University College.
Brown, John A., of King's College.
Bury, J. Sykes, of University College.
Chadwick, George R., of Guy's Hospital.
Conolly, P. Bennett, of the Charing-cross Hospital.
Cook, Samuel, of University College.
Davidson, Alexander D., of St. Thomas's Hospital.
Edwards, Frederick S., of St. Bartholomew's Hospital.
Harthy, William R., of King's College.
Hunt, John A., of St. Thomas's Hospital.
Iles, Alfred R., of St. Thomas's Hospital.
Jones, David, of University College.
Judson, Thomas R., of Guy's Hospital.
Lush, John S., of St. Thomas's Hospital.
Mallam, George B., of Guy's Hospital.
Mackern, John, of Guy's Hospital.
Miles, George E., of Guy's Hospital.
Nicholson, John F., of St. Thomas's Hospital.
Perry, Edward V., of St. George's Hospital.
Pickering, Charles F., of Guy's Hospital.
Pronger, Charles E., of St. Thomas's Hospital.
Rees, Alfred, of University College.
Rodwell, Edward M., of the Charing-cross Hospital.
Simpson, James H., of St. Bartholomew's Hospital.
Stanley, Samuel, of King's College.
Upton, Alfred, of St. Bartholomew's Hospital.
Williams, Alfred G., of St. Bartholomew's Hospital.
Woodward, Frederick E., of St. Bartholomew's Hospital.

Six candidates failed to acquit themselves to the satisfaction of the Court.

The following passed on the 13th inst., viz.:—

Chant, Thomas, student of the London Hospital.
Clapp, Robert, of St. Bartholomew's Hospital.
Clarke, Richard, of the Westminster Hospital.
Duke, Thomas, B.A. Cantab., of the Charing-cross and Guy's Hospitals.
Dunn, Hugh P., of St. Bartholomew's Hospital.
Edwards, Arthur, of St. Bartholomew's Hospital.
Evans, William M., of Guy's Hospital.
Garbutt, John G., of St. Mary's Hospital.
Green, Alfred P., of King's College.
Hunt, Joseph W., of University College.
Kellie, George J., of King's College.
Lucas, Arthur, of the Middlesex Hospital.
Mackay, James J., of King's College.
Mahony, Lawrence F., of the London Hospital.
Manders, Horace, of St. Mary's Hospital.
May, Arthur W., of King's College.
Neylen, John, of the London Hospital.
Pinnell, Thomas M., of University College.
Pye, Walter, of St. Bartholomew's Hospital.
Quicke, William J., of the Westminster Hospital.
Roberts, William S., of King's College.
Roberts, Henry W., of Guy's Hospital.
Roughton, James W., of St. Bartholomew's Hospital.
Stewart, William R., of the London Hospital.
Symons, John, of King's College.
Tirard, N. I. C., of King's College.
Turner, Edward B., of St. George's Hospital.
Verrall, Thomas J., of St. Bartholomew's Hospital.
Webb, John R. W., of St. George's Hospital.
White, Charles H., of St. Thomas's Hospital.

Six candidates failed to acquit themselves at this examination.

The following gentlemen passed on the 14th inst., viz.:—

Aplin, Alfred, student of University College.
Brown, Alexander S., of St. Mary's Hospital.
Freund, Percy H. E., of St. Thomas's Hospital.
Harrison, Edwin, of the Middlesex Hospital.
Mears, William P., of the London Hospital.
Sloman, Herbert, of St. Bartholomew's Hospital.
Smith, Maurice H., of St. Mary's Hospital.
Weise, Hubert F., of St. Bartholomew's Hospital.
West, Samuel H., B.A. Oxon., of St. Bartholomew's Hospital.
Wilson, Arthur F., of Guy's Hospital.

Out of the 192 candidates examined, only thirty-six were refused.

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The pass, or Surgical and Pathological, examination for the diploma of Membership will take place this day (Friday).

At a meeting of the Council of the College on the 16th inst., Mr. Charles Frederick Hodson, L.S.A., of Bishops Stortford, was admitted a Fellow of the College, his diploma of Membership bearing date December 22, 1837; and at the same meeting Mr. William Laidlaw Purves, L.R.C.S. Edin., July 23, 1864, of Hanover-street, W., was admitted a member of the College *ad eundem*.

APOTHECARIES' HALL.—The following gentlemen passed their examination in the Science and Practice of Medicine, and received certificates to practise, on Thursday, April 9:—

Bate, George, Camelford, Cornwall.
Crawshaw, Benjamin, Accrington, Lancashire.
Dawson, Richard Stratheden, Ootacamund, Madras.

The following gentleman also on the same day passed his primary professional examination:—

Weddell, William Henry, St. Mary's Hospital.

APPOINTMENTS.

*** The Editor will thank gentlemen to forward to the Publishing-office, as early as possible, information as to any new Appointments that take place.

DORAN, ALBAN H. G., M.R.C.S., L.S.A., Anatomical Assistant to the Museum of the Royal College of Surgeons, England—Surgeon to the Metropolitan Dispensary, Fore-street, Cripplegate, E.C., *vice* Mr. A. E. Cumberbatch, resigned.

EDIS, ARTHUR, M.D.—Assistant Obstetric Physician to the Middlesex Hospital.

EVANS, GEORGE H., M.D.—Assistant-Physician to the Middlesex Hospital.

STAINTHORPE, THOMAS, M.D., F.R.C.S. Eng., L.R.C.P. Edin., L.S.A.—Reappointed Chairman of the Hexham Urban Sanitary Authority.

WARBURTON, JAMES P., L.R.C.P. Edin., L.F.P., L.M., L.S.A.—Medical Officer for the Newcastle-under-Lyme Rural Sanitary District.

NAVAL AND MILITARY APPOINTMENTS.

WAR OFFICE—MEDICAL DEPARTMENT.—Surgeon James Shand Duncan, M.D., to be Surgeon-Major, *vice* Robert Beresford Smyth, M.B., retired upon half-pay.

ADMIRALTY.—In accordance with the provisions of her Majesty's Order in Council of February 22, 1870, the following have been placed upon the retired list of their rank, viz.:—Staff-Surgeon Nicholas Littleton, Surgeon Richard Beamish.

BIRTHS.

FRASER.—On April 12, at 14, Hamilton-drive, Hillhead, N.B., the wife of Surgeon-Major Fraser, M.D, Senior Medical Officer, Glasgow Garrison, of a son.

MAY.—On April 11, at 68, Pentonville-road, the wife of E. H. May, M.R.C.S. Eng., L.S.A., of a daughter.

MILLER.—On April 14, at Brafield Church-road, Upper Norwood, the wife of Richard May Miller, B.A., M.D. Lond., of a daughter.

TURLE.—On April 12, at Cromwell Villa, Finchley-road, the wife of James Turle, M.D., of a daughter.

TURTLE.—On April 19, at Clifton Lodge, Woodford, the wife of Frederick Turtle, M.D., of a daughter.

MARRIAGES.

BENSON—JOHNSON.—On April 9, at St. Matthew's Church, Redhill, William Cole Benson, son of Thomas Benson, Esq., of Penryhn Lodge, Hastings, to Marion, fourth daughter of James Johnson, M.R.C.S., of Redhill.

DAWSON—DENMAN.—On April 9, Richard Henry Dawson, M.R.C.S., of Newton-on-Trent, to Frances, second daughter of Thomas Denman, Esq., of Cromwell, Nottinghamshire.

GABB—DANDO.—On April 9, at Friern Barnet, J. E. Gabb, M.R.C.S., of Woodbank, Dowdeswell, to Kate, youngest daughter of N. Dando, Esq., of Torrington-park, Friern Barnet.

HARRIS—THORNELY.—On April 8, at Hyde Chapel, Gee-cross, Robert Harris, M.B. Lond., elder son of Michael Harris, Esq., of Darnley-road, Hackney, to Jane, daughter of Thomas Thornely, Esq., of Godley-vale, Cheshire.

LEWIS—SIMPSON.—On April 9, at St. Andrew's, Wells-street, Waller Lewis, Physician to H.M. Post-office, to Catherine, third daughter of Lightly Simpson, Esq., of 50, Gower-street, W.C.

LOVELL—RYAN.—On April 9, at St. Bartholomew's Church, Dublin, William Day Lovell, of West Croydon, Surrey, only son of James Holmes Lovell, Esq., to Blanche Marie Pauline, third daughter of Michael Ryan, M.D., F.R.C.S., of 17, Upper Leeson-street, Dublin.

MARTIN—ILES.—On April 9, at the parish church, Fairford, Paulin Martin, M.R.C.S., of Abingdon, Berks, to Mary, eldest daughter of the late Albert Iles, M.D., of the Croft House, Fairford, Gloucestershire.

NEWMAN—BRIGHT.—On April 9, at St. Luke's Church, Cheltenham, Anthony John Newman, L.R.C.P., of Windermere, to Fanny Charlotte, third daughter of James Bright, M.D., of Cheltenham.

PEARSE—KEEBLE.—On April 9, at St. George's, Hanover-square, G. E. Legge Pearse, F.R.C.S., of Manchester, elder son of Dr. G. Pearse, St. George's-square, S.W., to Ellen Alice, younger daughter of the late John Keeble, Esq., of Claverton-street, S.W.

STAFFORD—NEWINGTON.—On April 9, at St. Mary's, Ticehurst, Major Boyle T. Stafford, youngest son of the late Major-General J. H. Stafford, H.M.'s Service, to Georgiana Eliza Heathcote, eldest daughter of Samuel Newington, M.D., of Ridgeway, Ticehurst, Sussex.

DEATHS.

ADAMS, ROBERT, M.D., Surgeon Army Medical Department, at Woolwich, of rheumatic fever, on April 10.

BRYCE, CHARLES, M.D., at 5, Old Steyne, Brighton, on April 8, aged 70.

DIAMOND, THERESA, wife of Hugh W. Diamond, M.D., F.S.A., at Twickenham House, Middlesex, on April 9.

ELLIOTT, GILBERT STANLEY, second surviving son of the late Wm. Elliott, M.D., of Stratford-green, Essex, near Young, New South Wales, from an accident, on February 5.

HERRICK, GEORGE, M.D., late of Toronto, Canada West, at his brother's residence, West View, Blackrock, Cork, in his 83rd year.

HOLMAN, SUSAN HARRIETTE, second daughter of George Holman, at Ivy House, Uckfield, on April 7, aged 30.

JAGOE, JOHN, M.R.C.S. Eng., L.S.A., Coroner for the Eastern Division of the County of Cornwall, of Liskeard, Cornwall, on April 13.

MASSY, HELEN, youngest child of Surgeon-Major Massy, Army Medical Department, at Bangalore, on March 19, aged 11 months.

VACANCIES.

In the following list the nature of the office vacant, the qualifications required in the Candidate, the person to whom application should be made, and the day of election (as far as known) are stated in succession.

BERKS COUNTY ASYLUM, MOULSFORD, WALLINGFORD.—Assistant Medical Officer. Candidates must be duly qualified. Applications, with testimonials, to Dr. R. B. Gilland, Medical Superintendent.

BOOTLE BOROUGH HOSPITAL.—House-Surgeon. Candidates must possess both a medical and surgical qualification. Applications, with testimonials, to T. P. Danson, Honorary Secretary, on or before April 20.

BRISTOL GENERAL HOSPITAL.—Physician. Candidates must be duly qualified. Applications, with testimonials, to the Secretary, Henry Fox, Esq., R.N.

CHELTENHAM GENERAL HOSPITAL AND DISPENSARY.—Honorary Medical Officer at the Branch Dispensary. Candidates must be duly qualified and registered. Applications, with testimonials, to the Board of Governors before May 1.

CHORLTON-ON-MEDLOCK DISPENSARY, MANCHESTER.—House-Surgeon. Candidates must be duly qualified and registered. Applications, with testimonials, to A. Fox, Esq., Honorary Secretary, 59, Princess-street, Manchester, on or before April 22.

CUMBERLAND INFIRMARY.—House-Surgeon. Applications, with testimonials, to Mr. John Laver, Secretary, on or before April 22.

HULL GENERAL INFIRMARY.—Honorary Physician. Applications, with testimonials, to the Chairman, at the Infirmary.

KING'S COLLEGE HOSPITAL.—Assistant-Physician, Pathological Registrar, and Curator of the Anatomical Museum. For particulars apply to J. W. Cunningham, Esq., King's College, Strand.

KING'S COLLEGE HOSPITAL.—Assistant Dental Surgeon. For particulars apply to J. W. Cunningham, Esq., Secretary, King's College, Strand.

LANCASTER COUNTY ASYLUM.—Assistant Medical Officer. Applications, with testimonials, to the Superintendent.

LEEDS GENERAL INFIRMARY.—House-Physician, also House-Surgeon. Candidates must be duly qualified. Applications, with testimonials, to Dr. Heaton, The Infirmary, Leeds, on or before April 30.

LINCOLN COUNTY HOSPITAL.—House-Surgeon and Apothecary. Candidates must be M.R.C.S. Eng. and L.S.A., or L.R.C.P. Lond. Applications, with testimonials, to the Secretary, on or before May 4.

LUNESDALE UNION.—Medical Officer. Applications, with testimonials, to Mr. R. Stephenson, Hornby, near Lancaster, on or before April 21.

ROYAL SOUTH LONDON DISPENSARY, ST. GEORGE'S-CROSS, LAMBETH-ROAD, S.E.—Honorary District Surgeon. Applications to M. Hentsch, at the Dispensary.

ST. THOMAS'S HOSPITAL.—Resident Assistant-Physician. Candidates must be duly qualified. Applications, with testimonials, to the Treasurer, at the office, St. Thomas's Hospital.

WINDSOR ROYAL INFIRMARY.—House-Surgeon. Applications, with testimonials, to Mr. G. Cartland, Secretary, on or before April 29.

WOLVERHAMPTON AND STAFFORDSHIRE GENERAL HOSPITAL.—House-Surgeon. Candidates must be duly qualified. Applications, with testimonials, to the Chairman of the Medical Committee, on or before April 27.

UNION AND PAROCHIAL MEDICAL SERVICE.

*** The area of each district is stated in acres. The population is computed according to the census of 1871.

RESIGNATIONS.

Dewsbury Union.—The Gomersal District is vacant; area 2200; population 6836; salary £16 per annum.

Thingoe Union.—Mr. Wm. S. Barker has resigned the Fourth District; area 8080; population 1552; salary £50; also the Fifth District; area 6660; population 1697; salary £42 6s. per annum.

Torrington Union.—Mr. H. S. Traill has resigned the Winkleigh District; area 9118; population 1402; salary £17 18s. per annum.

APPOINTMENTS.

Crediton Union.—HARRY MAY, L.R.C.P. Lond., M.R.C.S. Eng., L.S.A., to the Bow and Colebrooke District.

Helmsley Union.—Robert B. Low, M.D., M.B., M.C. Univ. Edin., L.S.A., to the Helmsley District and the Workhouse.

Macclesfield Union.—Hector Allan, B.M. and M.C. Aber., to the Whally District.

Northallerton Union.—Bartholomew Lumley, M.R.C.S. Eng., L.S.A., to the Northallerton District and the Workhouse.

Rhayader Union.—Richard Richardson, L.R.C.P. Edin., L.F.P. & S. Glasg., to the Rhayader District; Wm. B. Davies, L.R.C.P. Lond., M.R.C.S. Eng., L.S.A., to the Nantmel District.

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St. Giles, Bloomsbury.—Dr. Theophilus Redwood as Analyst for one year.
St. Neot's Union.—Arthur C. Turner, L.R.C.P. Lond., M.R.C.S. Eng., to the First District and the Workhouse.
Stockton Union.—John R. Murray, L.R.C.P. Edin., L.F.P. & S. Glasg., to the Norton District.

PRIZES.—At a meeting of the Council of the Royal College of Surgeons on the 16th inst., the Jacksonian Prize was awarded to Mr. Henry Trentham Butlin, F.R.C.S. (exam.), of Guilford-street, Russell-square, for his essay "On Ununited Fractures." There was no award for the Collegial Triennial Prize, "On the Structure and Functions of the Medulla Oblongata, including the Connexions of the Central Nerve-roots." It is somewhat remarkable that this prize has not been carried off since 1858.

IT is proposed to reduce the number of the physicians to the Devon and Exeter Hospital from four to two.

THE proposition to increase the number of the medical staff of the Leicester Infirmary was, after a long discussion, negatived at the annual meeting on the 8th inst.

SIR HENRY THOMPSON'S "Clinical Lectures on Diseases of the Urinary Organs" has just appeared in a French dress. The translators are MM. Jude, Hue, and F. Grynoux. The lectures are preceded by an anatomical introduction by the same gentlemen.

ABOUT £1500 was realised at a baazar at Chichester, last week, in aid of the funds of the West Sussex, East Hants, and Chichester Infirmary.

THE deaths during the past year in the Staffordshire Asylum at Burntwood have been sixty-five, and all from ordinary causes. Post-mortem examinations have been made in thirty-five cases. Of the probable cause, apparent or assigned, of the disorders in the admissions, discharges, and deaths of the year, epilepsy takes the precedence, organic diseases of the brain next, and intemperance the third place.

A MEETING of the Society of Medical Officers of Health will be held at the Scottish Corporation Hall, Crane-court, Fleet-street, this day (Saturday), April 18, at 7.30 p.m. The Secretaries will present an abstract of the replies received to a series of questions addressed by direction of the Society to all the provincial medical officers of health, in reference to returns of sickness and death, in what manner obtained, and on what terms; and as to any difficulties experienced in the discharge of their duties. Mr. Liddle will make some remarks on the Metropolitan Buildings and Management Bill (prepared by the Metropolitan Board of Works), with special reference to the 6th Schedule. Dr. Dudfield will call attention to the Parliamentary proceedings of March 30, 1874, relative to the Building Act, 1874 (*re* slaughter-houses), and move a resolution thereon.

ANIMAL VACCINATION AT MILAN.—Dr. Grancini reports the following as the results of five years' employment of animal or heifer vaccination in Milan:—During the years 1869-73 there have been 6908 individuals vaccinated, and 49,569 revaccinated, a total of 56,477. Of the results of the 6908 vaccinations, 5336 were genuine, 110 spurious, 269 negative, and 1193 unverified. Of the results of the 49,569 revaccinations, 15,638 were genuine, 2629 spurious, 18,882 negative, and 12,420 unverified.—*Annali di Medicina*, March.

WOUND OF THE HEART.—A case recently occurred under Professor Richet, at the Hôtel-Dieu, presenting an additional exemplification of the fact that wounds of the heart are sometimes attended with little or no functional manifestation of the accident. The patient had discharged a revolver over the cardiac region, and the ball was found to have lodged behind, at the side of the spine, and so little was the respiration affected that it was at first thought that it had not traversed the chest. On careful auscultation, however, M. Richet pronounced that hæmato-pneumothorax was present. Nevertheless the heart continued to beat with a normal regularity. Next day, after a paroxysm of coughing, considerable hæmorrhage took place from the wound, accompanied by the noisy issue of air at each respiratory movement, the upper part of the body becoming emphysematous. The heart's action, as well as that of the pulse, continued quite regular. After a few hours, death ensued on the hæmorrhage, and at the autopsy a small contused wound at the apex of the heart was found, while a larger portion of the organ exhibited marks of contusion, due to the friction of the fragments of a broken rib. The pericardium contained a little blood, and the lower lobe of the lung had been traversed by the ball throughout its entire extent.—*Gaz. des Hôp.*, April 4.

SCARLATINA is at present very prevalent in Halifax and Ovenden.

OATMEAL AS INFANTS' FOOD.—In a communication to the Société Médicale des Hôpitaux, MM. Dujardin-Beaumetz and Hardy make known the results of the employment of oatmeal on the alimentation and hygiene of infants. According to them, oatmeal is the aliment which by reason of its plastic and respiratory elements makes the nearest approach to human milk. It also is one of those which contains most iron and salts, and especially the phosphate of lime so necessary for infants. It also has the property of preventing and arresting the diarrhœas which are so frequent and so dangerous at this age. According to the trials made by M. Marie, infants from four to eleven months of age fed exclusively upon Scotch oatmeal and cow's milk thrive very nearly as well as do children of the same age suckled by a good nurse.—*Gazette Méd.*, April 4.

NOTES, QUERIES, AND REPLIES.

He that questioneth much shall learn much.—*Bacon.*

Sir Joseph Dickson, Teheran.—Letter, with enclosure, received.

A Volunteer Medical Officer, Dover.—In early life the celebrated Sydenham left Magdalen Hall, Oxford, to serve in the Parliamentary Army.

E. T.—The German proverb has it thus:—"He lies like a tombstone, and is as impudent as a newspaper."

A Member.—Due notice will be given when Messrs. Holmes and Callender commence their lectures at the College of Surgeons.

Inquirer.—The widow of the late Mr. Holmes Coote is about to open a school for the sons of gentlemen at 4, Coleherne-road, Redcliffe-gardens, West Brompton. You had better address her there.

No. 81.—The gentleman who represented this number, and who passed the ordeal, at the recent primary examination at the College of Surgeons, was Mr. C. M. Poole, an associate of the Institute of Civil Engineers. You will find his name published last week in the *Medical Times and Gazette*.

Lithotomist.—We know nothing of the case alluded to by our contemporary, but in the Museum of the College of Surgeons, in the lower gallery, amongst other calculi, you will find one of enormous size removed from the bladder of Sir Walter Ogilvie, Bart.

Dr. Harris.—The celebrated Francis Glisson, M.D., was born at Rompisham, Dorsetshire, in 1597, and was interred in the burial-ground on the west side of Fleet-market, now Farringdon-street. He discovered the capsula communis, or vagina portæ.

John Hunter, Stockwell.—Professor Flower is expected to be able to resume his duties at the College of Surgeons early in the ensuing month. Inquire of Mr. Doran, his acting assistant.

Vanity Fair.—We, too, have received copies of the funny portraits; of course they are caricatures, but very like the distinguished "fellow," who is as much amused with them as his friends. We are unacquainted with the artist.

Alex. Porter, Surgeon.—Sir William Lawrence was one of the most illustrious surgeons of which St. Bartholomew's can boast—and the names on that list are neither few nor small.

Dr. T. C.—Dr. T. Chudzindki's recent observations on the muscular system of the negro are published in Broca's *Révue d'Anthropologie*.

G. D.—The offices of the Cremation Society, now forming in London, are at 1, Great Winchester-street-buildings, City, and the Secretary is Mr. Wm. Eassie.

Regulus.—The salary of the Resident Surgeon at the Rochampton Hospital, Australia, is £300 a year.

Dr. Thompson.—Dr. Matthew Baillie was born in 1759, died in 1823 at Duntisbourne, Gloucestershire. The *fac-simile* of the handwriting described as that of John Hunter in Shirley Palmer's edition of his works was really that of Dr. Baillie, who had Hunter's permission to write it.

THE GALVANIC STEM.

TO THE EDITOR OF THE MEDICAL TIMES AND GAZETTE.

SIR,—In your critique of the first volume of the *Obstetrical Journal* it is mildly insinuated that I have mistaken cases of hysteria for epilepsy. That may be so; but if it is, I can answer that hysteria is as serious and intractable a disease as epilepsy, and its cure as much to be desired. Moreover, I am not peculiar in having made the alleged mistake, for others make it in the very cases where I am accused of it, and I am prepared to share the responsibility with them.

As to the value of the galvanic stem, I presume that is a point, like others in therapeutics, where individual experience governs individual opinion. The more I see of the *proper* use of the galvanic stem, the more certain I am of its usefulness.

I am, &c.,

7, Great Charles-street, Birmingham, April 11. LAWSON TAIT.

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COMMUNICATIONS have been received from—

Dr. Henry Lawson, London; Superfluous; Dr. Luce, Cambridge; London Physician; Surgeon-Major W. M. Webb, Netley; Mr. J. M. Finny, Dublin; Mr. R. B. Martin, London; Mr. E. H. Currie, London; Dr. Edis, London; Dr. Lawson Tait, Birmingham; Dr. Bell Taylor, Nottingham; Dr. Bourneville, Paris; Mr. T. P. Pick, London; Mr. A. Porter, Glasgow; Mr. J. W. Waldron, London; Inspector-General Lawson, London; Mr. F. Gordon Brown, London; Mr. R. Freeman, London; The Registrar-General, Edinburgh; Mr. J. E. Ingpen, London; Dr. Protheroe Smith, London; Mr. C. Sedgwick, Hollingbourne; Mr. G. C. Steel, London; Mr. Alban Doran, London; Mr. Edwin Birchall, Leeds; Mr. G. W. B. Calcott, Oundle; Mr. F. S. Goulder, Harleston; Mr. Benjamin Vincent, London; Mr. J. Layton, London; Dr. Alfred Carpenter, Croydon; Dr. Moriarty, Woolwich; Dr. F. M. Skues, Dalhousie; Dr. Stainthorpe, Hexham; Dr. Brakenridge, Edinburgh; Dr. Grimshaw, Dublin; Mr. J. Henderson, Leith; Mr. Starling, Higham Ferrers; Mr. A. P. Watkins, Worcester; Dr. W. G. Harrison, Boston; Mr. A. Bride, Newry; Dr. J. W. Moore, Dublin; Dr. Boggs, Paris; Dr. Druitt, Madras; Mr. H. A. Rogers, Cheltenham; The Registrar of the Apothecaries' Society; Dr. Arlidge, Stoke-on-Trent; Mr. Cooper Forster, London; Mr. Morris, London; Mr. J. Chatto, London.

PERIODICALS AND NEWSPAPERS RECEIVED—

Lancet—British Medical Journal—Medical Press and Circular—Gazette Hebdomadaire—Journal de Médecine et de Chirurgie—Journal of the Society of Arts—Pharmaceutical Journal—Allgemeine Wiener Medizinische Zeitung—La France Médicale—La Tribune Médicale—Gazette Médicale—Le Progrès Médical—Berliner Klinische Wochenschrift—Canada Medical Record—Irish Hospital Gazette—Canada Medical and Surgical Journal—Centralblatt für Chirurgie—Colonial Standard and Jamaica Despatch—Bulletin de l'Académie de Médecine—O Correio Medico de Lisboa—Lincoln Gazette.

BOOKS RECEIVED—

Thorpe's Qualitative Analysis—Comptes-Rendus de la Commission des Maladies Régnantes, faits a la Société Médicale des Hôpitaux de Paris, par le Dr. E. Besnier—Contribution a l'étude des Epidémies Cholériques, 1866-73, par le Dr. E. Besnier—Annual Report of the State Board of Health of Massachusetts—Budgett's Hygiene of Schools—Crane's Report on the Sanitary Condition of Leicester—Hill's Report on the Health of the Borough of Birmingham—Remarks on Impending Sanitary Legislation for Ireland, by T. W. Grimshaw, M.D.—Levis on Skin Grafting.

APPOINTMENTS FOR THE WEEK.

April 18. *Saturday (this day).*

Operations at St. Bartholomew's, 1½ p.m.; King's College, 2 p.m.; Charing-cross, 2 p.m.; Royal Free, 9 a.m. and 2 p.m.; Hospital for Women, 9½ a.m.; Royal London Ophthalmic, 11 a.m.; Royal Westminster Ophthalmic, 1½ p.m.; St. Thomas's, 9½ a.m.

Society of Medical Officers of Health, 7½ p.m. Meeting.

Royal Institution, 3 p.m. Prof. Seeley.

20. *Monday.*

Operations at the Metropolitan Free, 2 p.m.; St. Mark's Hospital for Diseases of the Rectum, 2 p.m.; St. Peter's Hospital for Stone, 3 p.m.; Royal London Ophthalmic, 11 a.m.; Royal Westminster Ophthalmic, 1½ p.m.

Medical Society of London, 8 p.m. The adjourned Discussion on Mr. Keene's communication concerning "Death from Chloroform" will be reopened by Dr. Richardson, F.R.S.

21. *Tuesday.*

Operations at Guy's, 1½ p.m.; Westminster, 2 p.m.; National Orthopædic, Great Portland-street, 2 p.m.; Royal London Ophthalmic, 11 a.m.; Royal Westminster Ophthalmic, 1½ p.m.; West London, 3 p.m.

London Anthropological Society, 8 p.m. Meeting.

Pathological Society, 8 p.m. Adjourned Debate on Cancer.

Statistical Society, 7¾ p.m. Meeting.

Royal Institution, 3 p.m. Prof. Rutherford, "On the Nervous System."

22. *Wednesday.*

Operations at University College, 2 p.m.; St. Mary's, 1½ p.m.; Middlesex, 1 p.m.; London, 2 p.m.; St. Bartholomew's, 1½ p.m.; Great Northern, 2 p.m.; St. Thomas's, 1½ p.m.; Samaritan, 2½ p.m.; King's College (by Mr. Wood), 2 p.m.; Royal London Ophthalmic, 11 a.m.; Royal Westminster Ophthalmic, 1½ p.m.

Hunterian Society (London Institution), 8 p.m. Mr. Rivington will make some observations "On a Case of Intra-Orbital Aneurism." Mr. Corner will also bring forward a "Case of Intra-Orbital Aneurism successfully treated by tying the Common Carotid." Mr. Wagstaffe and Mr. A. H. Snell will exhibit some Colloid-Silica Splints for the Treatment of Fractures.

Royal Institution, 3 p.m. Mr. W. Noel Hartley, "On the Atmosphere."

24. *Friday.*

Operations at Central London Ophthalmic, 2 p.m.; Royal London Ophthalmic, 11 a.m.; South London Ophthalmic, 2 p.m.; Royal Westminster Ophthalmic, 1½ p.m.; St. George's (ophthalmic operations), 1½ p.m.

Clinical Society, 8½ p.m. Dr. Anstie (for Mrs. G. Anderson) will read a "Case of Malignant Disease of the Colon." Mr. Henry Lee, "A Case of Traumatic Stricture of Trachea." Dr. Morell-Mackenzie, "Cases illustrating Treatment of Cystic Bronchocele." Dr. J. Althaus, "Faradisation in a Case of Lead Poisoning."

Gresham College, 7 p.m. Lecture on "Food and Diet."

Quekett Microscopical Club, 8 p.m. Meeting.

Royal Institution (Weekly Evening Meeting, 8 p.m.), 9 p.m. Mr. C. W. Merrifield, "On Sea Waves."

VITAL STATISTICS OF LONDON.

Week ending Saturday, April 11.

BIRTHS.

Births of Boys, 1227; Girls, 1193; Total, 2420.
Average of 10 corresponding years 1864-73, 2332·0.

DEATHS.

	Males.	Females.	Total.
Deaths during the week	752	635	1387
Average of the ten years 1864-73	786·3	736·2	1522·5
Average corrected to increased population	...	...	1675
Deaths of people aged 80 and upwards	...	...	48

DEATHS IN SUB-DISTRICTS FROM EPIDEMICS.

	Population, 1871.	Small-pox.	Measles.	Scarlet Fever.	Diphtheria.	Whooping-cough.	Typhus.	Enteric or Typhoid Fever.	Simple continued Fever.	Diarrhœa.
West ...	561359	...	10	1	2	3	...	2	1	2
North ...	751729	...	10	3	4	16	...	5	2	3
Central	334369	...	7	1	...	5	...	1	...	...
East ...	639111	...	5	8	...	10	...	5	1	2
South ...	967692	...	4	1	...	21	2	6	4	3
Total ...	3254260	...	36	14	6	55	2	19	8	10

METEOROLOGY.

From Observations at the Greenwich Observatory.

Mean height of barometer	29·474 in.
Mean temperature	45·1°
Highest point of thermometer	60·2°
Lowest point of thermometer	34·4°
Mean dew-point temperature	39·7°
General direction of wind	W.S.W.
Whole amount of rain in the week	0·37 in.

BIRTHS and DEATHS Registered and METEOROLOGY during the Week ending Saturday, April 11, 1874, in the following large Towns :—

Boroughs, etc. (Municipal boundaries for all except London.)	Estimated Population to middle of the year 1874.*	Persons to an Acre. (1874.)	Births Registered during the week ending April 11.	Deaths Registered during the week ending April 11.	Temperature of Air (Fahr.) Highest during the Week.	Lowest during the Week.	Weekly Mean of Mean Daily Values.	Temp. of Air (Cent.) Weekly Mean of Mean Daily Values.	Rain Fall. In Inches.	In Centimetres.
London ...	3400701	45·1	2420	1387	60·2	34·4	45·1	7·28	0·37	0·94
Portsmouth ...	120436	26·8	91	53	...	...	...	...	1·42	3·61
Norwich ...	82257	11·0	53	44	57·5	32·0	44·0	6·67	0·69	1·75
Bristol ...	192389	43·3	132	77	56·3	35·5	44·2	6·78	0·99	2·51
Wolverhampton ...	70996	20·9	51	34	57·5	31·9	44·0	6·67	0·53	1·35
Birmingham ...	360692	43·0	329	191	55·5	32·3	44·0	6·67	0·86	2·18
Leicester	106202	33·2	92	54	60·2	32·2	45·1	7·28	0·41	1·04
Nottingham ...	90994	45·5	53	34	57·7	31·1	43·7	6·50	0·67	1·70
Liverpool	510640	98·0	384	253	56·2	34·1	44·6	7·00	0·21	0·53
Manchester ...	353·9	82·8	281	183	60·5	32·0	44·9	7·17	0·33	0·84
Salford	133·68	25·7	119	52	58·5	31·3	43·9	6·61	0·35	0·89
Oldham	86281	18·5	61	44	52·5	...	...	...	0·35	0·91
Bradford ...	163056	22·6	91	61	55·8	36·0	44·7	7·06	0·30	0·76
Leeds	276798	12·9	164	141	54·0	35·0	44·4	6·89	0·20	0·51
Sheffield	261029	13·3	202	106	57·0	31·0	44·4	6·89	0·39	0·99
Hull	150996	36·0	89	40	57·0	30·0	43·7	6·50	0·51	1·30
Sunderland ...	104378	31·6	89	35	...	...	...	...	...	...
Newcastle-on-Tyne	135437	25·2	76	61	...	...	...	...	...	...
Edinburgh	211691	47·8	137	120	...	...	...	...	...	...
Glasgow	506109	100·4	396	297	52·5	35·8	43·2	6·22	0·40	1·02
Dublin	314686	31·3	143	163	57·6	27·3	43·5	6·39	0·36	0·91
Total of 21 Towns in United Kingdm	7618655	36·6	5143	3450	60·5	27·3	44·2	6·78	0·53	1·32

At the Royal Observatory, Greenwich, the mean reading of the barometer last week was 29·47 in. The highest was 29·88 in. on Tuesday morning, and the lowest 29·05 in. on Saturday afternoon.

* The figures for the English and Scottish towns are the numbers enumerated in April, 1871, raised to the middle of 1874 by the addition of three years and a quarter's increase, calculated on the rate which prevailed between 1861 and 1871. The population of Dublin is taken as stationary at the number enumerated in April, 1871.

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ORIGINAL LECTURES.

COMMENTARIES ON DISEASE IN CHILDREN.

By EUSTACE SMITH, M.D. Lond.,
Physician to H.M. the King of the Belgians,
Physician to the East London Children's Hospital,
Assistant-Physician to the Victoria-park Hospital for Diseases of the Chest.

(*Continued from page* 199, vol. ii. 1873.)

V.—Acute General Tuberculosis (Granulia).

Acute tuberculosis is a very common disease in children of every age, and, as one of their most fatal disorders, requires especial study, more particularly as it is often very difficult of diagnosis.

By acute tuberculosis we mean an acute general affection whose symptoms in the beginning are often obscure and may take different shapes, but of which the invariable anatomical expression and distinguishing mark is the grey granulation. The disease is not to be confounded with pulmonary phthisis (ulcerative destruction of lung), nor with bronchial and mesenteric phthisis (cheesy enlargement of the bronchial or mesenteric glands). It may be combined with these diseases—and, indeed, in the lung the grey granulation is often found secondary to pulmonary mischief,—but it may also arise quite independently of such affections, and, as a distinct disorder, with distinct pathological characters, cannot be said to hold any necessary relation to the so-called consumptive diseases. So far from being allied in its nature with the phthisical disorders, acute general tuberculosis seems to partake more of the character of an acute specific disease, and in the insidious manner of its occurrence and the severity of its general symptoms may be compared to enteric fever, to which disorder, indeed, it often exhibits a very close analogy. It resembles the acute specific diseases also in the frequency with which it comes on unexpectedly in children of apparently the most robust constitution. It is not only weakly, pining infants, and thin, pallid, delicate-chested children who fall victims to this disease. These may, and frequently do, become the subjects of acute tuberculosis, but it is often in such cases a secondary complication—an intercurrent affection supervening upon already existing mischief in the lung. On the contrary, when it occurs as a primary disorder, it may seize upon children who are in apparently the soundest health, and in whom no signs had ever been noticed to indicate the likelihood of such an attack. This is especially the case when the tubercular outbreak falls principally upon the meninges.

Even in these cases, however, it seems probable that the tubercular affection is sometimes a secondary disease; that it is a result of infection of the system from some previously unsuspected cheesy deposit. It is far from uncommon in the post-mortem examination of such cases to find old caseous masses in the body; and many pathologists of eminence are now disposed to believe that such masses are capable of giving rise to a general infection of the system, even although they may themselves have induced no symptoms at all, or symptoms so slight as to have attracted no especial attention. According to this view, therefore, acute tuberculosis, although it is to be distinguished from pulmonary phthisis, may yet be directly excited by this condition of the lung. Caseous pulmonary deposits, as they soften and break down, may become direct sources of infection of the system, giving rise to the tubercular outbreak. So, also, cheesy enlargement of the lymphatic glands may be followed by the same result. In this way may be explained the many cases of acute tuberculosis supervening upon measles or hooping-cough: the bronchial glands, which had become enlarged during the progress of these diseases, instead of returning to a healthy state, undergo a cheesy transformation, and after a time soften and lead to a general formation of tubercle(a) in the body, although the child may have appeared in the interval to recover completely from the original complaint. So carious disease of bone of long standing may determine the occurrence of acute tuberculosis in children who have never manifested any signs of tubercular predisposition.

Acute tuberculosis may, therefore, be induced as a secondary affection in children who had previously presented but slight signs of ill-health, and in whom no family tendency to tubercular or other phthisical disease can be detected. It may, however, also occur as a primary disease in cases where the presence of a softening cheesy deposit cannot be suspected, and where, indeed, actual examination of the body has revealed no cause to which the outbreak of the tubercular disorder can be attributed. In such cases there is usually evidence of hereditary predisposition either on the side of the father or of the mother, or of both; and we often find on inquiry that the case in question is not a solitary instance of the disease occurring in the family, but that some of the other children had been previously seized more or less suddenly with severe symptoms about the head, the chest, or the belly, and had rapidly died, with all the signs of acute tubercular disease. In many cases the predisposition extends to the exact form in which the tubercular disorder is to manifest itself, and a family may lose several children in succession from tubercular meningitis.

When the hereditary tendency is thus strongly marked, there is often in the build of the child's body an approach to the so-called tubercular type of physical conformation. The chest, indeed, may be perfectly formed, and may show no signs of antero-posterior flattening, but in the clear complexion, the thin transparent skin, the large bright eyes and red lips, the small bones, the sensitive nervous system, and the general delicacy of organisation, we find evidences of a distinct constitutional condition in which the development of acute grey tubercle may be excited by comparatively trifling causes. This is not, however, always the case, for children may equally become the subjects of this complaint who have never presented any such peculiarities, nor indeed ever exhibited in themselves any indications of a tendency to tubercular disease, although such indications may, perhaps, be found in the family history.

The cause of the tubercular outbreak must therefore in many cases remain unknown. Bad hygienic conditions, which are usually quoted as causes of this disease, may be capable of exciting a dormant tendency where this is strong, and may, by nourishing a propensity to caseous degenerations, tend indirectly to excite the formation of true grey tubercle; but when the disease is found in children previously healthy, and reared in strict obedience to the laws of health, there must be other causes in operation of which we know nothing, and against which, therefore, it is impossible to guard the patient.

Acute tuberculosis is liable to occur after certain of the acute specific diseases, especially measles, typhoid fever, and variola. Hooping-cough is also sometimes followed by it. Indeed, where the predisposition is strong, almost any febrile attack may produce sufficient impairment of nutrition to lead to the outbreak of the disease. Thus, it may even come on after an ailment so trifling as varicella.

Acute tuberculosis is marked by the dissemination through the organs of the grey granulation. In a clinical paper it is unnecessary to enter into strictly anatomical details as to the structure, etc., of a body with the appearance of which everyone must be familiar. It is, however, of practical importance to remember that the grey granulation is an outgrowth from the lymphatic system, and that one of its principal points of origin is the adenoid tissue, which forms the lymphatic sheath round the minute arteries in many situations. This connexion with the bloodvessels may lead to great interference with the circulation, and produce extensive disorganisation. Thus in the pia mater the pressure of the perivascular growth causes great hyperæmia of vessels, followed by basilar meningitis, infiltration of the tissues with serous fluid, and softening of the substance of the brain. In the lungs its seat is not only in the lymphatic sheath, but also in the connective tissue between the lobules and the infundibula. Here the presence of the new formation causes a thickening of the alveolar walls, which may eventually lead to obliteration of the cavity of the cell. It also before long sets up catarrhal inflammation in its immediate neighbourhood, so that the larger nodules become surrounded by a circumscribed zone of catarrhal pneumonia. This, however, is a later change, and one which is not always to be seen, for, on account of the comparatively short course of acute tuberculosis, and the rapidity with which the disease hurries to a

(a) In the present paper the use of the word "tubercle" is confined to the grey granulation. The term "*grey* granulation" is used in deference to existing custom, although in children—and often indeed in adults—the nodules quickly lose their grey appearance and become yellow—so quickly in some cases that it is difficult to say that the colour was not yellow from the very first.

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conclusion, death may take place before any inflammatory process has been excited in the tissue by the presence of the nodules.

The grey granulation may be found in all parts of the body —wherever, in fact, adenoid tissue exists. Its distribution, however, is not always general. It may be so, but often its presence is limited to special cavities or organs. The child, however, differs from the adult in one respect—viz., that whereas in the latter, whenever tubercle exists in the body, the lungs rarely, if ever, escape, in a child dying of this disease the lungs are often found to contain no grey granulations at all, although the nodules may be plentifully distributed over other organs.

(To be continued.)

ORIGINAL COMMUNICATIONS.

NOTES OF A CASE OF

HEMIPLEGIA FROM SOFTENING OF THE BRAIN AFTER LIGATURE OF THE EXTERNAL AND INTERNAL CAROTIDS,

WITH GENERAL REMARKS ON THE SUBJECT.

By JAMES RUSSELL, M.D., F.R.C.P.,
Physician to the Birmingham General Hospital.

(Continued from page 395.)

I MAY fairly add to the foregoing cases three in which the obstruction of the carotid, though effected otherwise than by ligature, had yet taken place outside the cranium, and had occurred suddenly in two—probably in all. One was Dr. Todd's case of dissecting aneurism of the aorta, which had closed the carotid by direct pressure; another was a case of rupture of the inner coat of the artery, consequent on a fall; the third was a case of dilated aorta, in which the orifice of the carotid was closed by great tumefaction of its coats. The second of the cases has especial interest in the present connexion, as affording a third instance of coagulation of the blood in all the branches depending on the internal carotid, after sudden closure of the primitive vessel. The early symptoms in the case, "violent pain, cries, disordered movements, with great disturbance of circulation, respiration, and calorification," though chiefly produced by diminished supply of blood, were doubtless increased by concussion. Profound coma and complete right hemiplegia followed in a few hours; the patient died on the fifth day.

As the ophthalmic artery arises from the internal carotid within the cranium, vision may be expected to suffer in the cases of which I am writing. It is of course probable that interference with vision in a single eye might exist without the patient being sensible of the defect under the peculiar circumstances now supposed to exist; but, in point of fact, defect of vision is noticed by several observers after ligature of the carotid. Thus, Dr. Todd states that in three of Bérard's cases vision was defective on the side of the ligatured artery; in one of the patients the eye was completely deprived of sight, and the sense of hearing was also greatly weakened on the same side. Mr. Keen mentions both sight and hearing as being likely to suffer, and he intimates that in such cases the prognosis is unfavourable so far as the particular functions are concerned.

Both Dr. Ehrmann and M. Richet notice loss of vision, and the latter states that deafness is also liable to occur, but is usually transient. Anatomical considerations would lead to the supposition that deafness is far less serious after ligature of the carotid than blindness. The supply of blood to the auditory apparatus depending on the basilar and on branches of the external carotid, any deficiency of blood-supply occasioned by ligature of the primitive carotid would be speedily repaired. Vision was affected in four out of Ehrmann's twelve cases of successive ligature *of both carotids*. In one of the four, confusion of vision followed *each* operation; in the other three it took place after the second operation alone, in each case on the side last ligatured. In one patient the eye sloughed. Destruction of the eyeball occurred in one of the two patients mentioned by Norris. A tendency to sloughing was likewise noticed in one of the cases which has fallen under my notice, though no cerebral disorder was present. It was a case of orbitar aneurism, in which the vision of the affected eye had been weakened before the operation, but the defect underwent a marked increase after the application of the ligature, most probably through interference with the function of accommodation.

One of my cases has somewhat of a historic interest, as being an instance observed in 1824 of change in the action of the iris through pressure on the cervical sympathetic: it is related by Mr. Coates (*Med.-Chir. Trans.*, vol. xi.). In another case (*Lancet*, 1835) diminution of the palpebral aperture is associated with the presence of a false aneurism in the neck, which had also occasioned disorder of some of the neighbouring nerves.

Among the cases of pathological obstruction of the carotid I find two instances in which vision suffered. In one case the left internal carotid and its branches were occluded for the length of an inch; in the other both internal carotids were obstructed, the patient becoming partially blind when the first artery was blocked.

Passing now to consider the post-mortem appearances in cases of death from cerebral disease after ligature of the carotid, I may at once dispose of six out of the twenty cases of which I have a report. In these six the changes were doubtless the consequences of secondary inflammation, originating either in the operation itself or in the circumstances which rendered the operation necessary. With regard to the report of the remaining cases, their details justify the remark already made —that the tendency of the morbid process set up in the brain is to produce disorganisation of the cerebral tissue. In one case only was the softening on the side opposite that of the ligatured artery, though the hemiplegia which had attacked the patient was connected with the hemisphere to which the ligatured artery belonged; the particulars are imperfect. The additional post-mortem examinations which I may quote from Dr. Ehrmann (eight in number) accord with my own in the description given. In one of the eight, puriform effusion had taken place upon the affected hemisphere.

I may state generally that in most of the cases the softening of the hemisphere on the ligatured side was extensive and complete; the anterior and middle lobes, and occasionally the whole hemisphere, being affected by the disorganising process. There are, however, three exceptions among my cases, and one among Ehrmann's, to the general rule of the occurrence of softening; in these four cases, though the motor function of the hemisphere was suspended, no change was met with in its tissue. In one of these the patient lived thirty hours; there was great injection of the cerebral tissue; and a similar state of injection was present in Dr. Ehrmann's case, in which the patient survived for four days. In the other two cases the patients lived three and five days respectively; in the latter of the two there were severe headache and vomiting almost from the time of the operation, and hemiplegia took place on the third day. In the other case repeated hæmorrhage had taken place before the operation; the patient became hemiplegic in thirty hours. In neither case was there any change of importance in the tissue of the brain; and this absence of change was the subject of especial comment by Mr. Coote in one of the cases (*Medical Times and Gazette*, vol. i. 1858, pp. 89 and 177). Doubtless these are the type of the cases in which recovery ultimately occurs. In Dr. Todd's case of dissecting aneurism of the aorta, gradual improvement was taking place in the paralytic symptoms when the patient died, on the eighth day, from the bursting of the aneurism. Patches of the right hemisphere, within the district of the Sylvian artery, were as if worm-eaten, and soft.

Besides softening, another condition of much importance has to be noticed—a state of injection of the minute vessels.

A difference of an interesting character seems to exist between the morbid changes met with in the brain after ligature of the carotid and those which are found when the carotid is obstructed within the cranium. Although in both cases alike the function of the affected hemisphere may be suspended, in the instance of pathological obstruction the softening of the hemisphere appears to be less extensive and the injection of the small vessels to be greater. An opposite result might have been anticipated as regards softening, from the very condition which, in obstruction within the cranium, doubtless tends to favour the injection of the small vessels—I mean the nearness of the part obliterated to the orifice of the arteries springing from the carotid, and consequently the greater probability of those arteries participating in the obstruction. Moreover, in such cases the brain is shut off from one source of compensating supply, which is doubtless

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of importance in cases of carotid ligature—viz., by means of the anastomosing branches of the two external carotids. Dr. Todd notices the rapid renewal of circulation which took place in the case I have lately quoted. Mr. Holmes mentions three cases of aneurism of the internal carotid, in all of which pulsation never fully ceased after deligation of the common carotid; and pulsation in the aneurismal tumour was noticed in nine of the thirty-eight cases collected by Dr. Norris.

The appearances presented by the brain after pathological obstruction of the internal carotid within the cranium correspond with the general statement prefixed by Dr. Bristowe to a description of seven cases of obstruction of cerebral arteries (*Pathological Transactions*, vol. x., p. 44). The immediate effect he states to be patchy congestion, limited to the locality with which the obstructed vessel directly communicates. To this succeeds a yellowish or slightly greenish discoloration, attended by marked softening and by the formation of numerous compound granular cells. The affected patches appear usually to be small and circumscribed, but are sometimes extensive and diffused." A further remark by Dr. Bristowe is of interest in connexion with the recovery which, as appears above, may take place even after serious cerebral symptoms consequent on deligation. "It is manifest that the obstruction of a single vessel is competent to, and frequently does produce, all the mischief above spoken of, and speedy death; but it is equally manifest—and this is an important fact—that such mischief may be more or less completely recovered from."

In many of the cases of obstruction of the middle cerebral artery contained in the *Transactions*, the softening is very limited in extent. Other cases, however, are reported, in which the softening was more extensive; and to these may be added Dr. Kirkes' cases in the *Medico-Chirurgical Transactions*, vol. xxxv.

(To be continued.)

THE RECREATIONS OF A MEDICAL PRACTITIONER.

By Surgeon-Major FRANCIS R. HOGG, M.D.,
Fellow of the Royal Medical and Chirurgical Society, etc.

In the *Lancet* it is stated that Inspector-General Murray had read a paper on cholera in the presence of Dr. Cuningham, and that an interesting discussion followed. As we are just as much in the dark as ever concerning many diseases, it is no waste of time to refer to the experiences of the past. In the plague of Athens, 428 B.C., the water-tanks were supposed to be poisoned. Headache, coryza, sore throat were symptoms, followed by hoarse cough, vomiting, and convulsions, the tongue red, the breath fetid. Although the livid body, marked with pimples, was not hot to the touch, the inward fever caused incessant thirst, and the wish to plunge into cold water. Many died after ten days' ardent fever, attended by want of sleep, yet not emaciation. Those who lived longer had diarrhœa, ulceration of the bowels, some losing their eyes, fingers, or toes. Too many of those who recovered became idiots. As a rule, the birds and beasts of carrion would not eat the corpses; if they did they died. Remitting in the winter, the disease returned in the summer, to carry off both rich and poor. At Constantinople, the plague commenced by slight morning fever; a rise of temperature that night, followed next day by buboes in the groin, the armpits, behind the ears, or on the thighs. Some affected were always asleep, others actively delirious; the worn-out attendants, but not the physicians, contracting disease. The sloughing buboes soon becoming black and gangrenous; the symptoms so puzzling that prognosis became impossible. In 1348, in the fair city of Florence, then reported clean, the same buboes, virulently contagious, killed people in three days; a couple of pigs, poking their snouts amid the rags of a corpse, died in a few minutes. The indefatigable doctors were male and female, and ladies in their helpless distress were only too glad to be nursed by men. Epistaxis was not here considered a fatal omen. Some feasted, some starved, others lived moderately—all to no purpose, for myriads breakfasted in the morning with their relations, and in the evening supped with their ancestors in the shades—during this fearful calamity, which raged between the months of March and July.

In England the same pestilence only attacked the poor. In Milan in 1630, when dirt and destitution invited the plague from the mountains, the priests behaved like angels. As for remedies, aloes, sulphur, oil of amber, tar, and a host of specifics did no good. In London, checked in December, breaking out again in May, the climax was reached in September, when, amongst other events, many nurses were whipped in public for robbing the dead; when, also, the pain of the buboes drove some to suicide, many into insanity. A perusal of many records of epidemics becomes very monotonous from the fact that these diseases have it all their own way, and panic paralyses everything. On the table before me is the last official report on cholera (doubtless a very costly book), which tells us that all previous teaching is in vain: the microscope, the test-tube, the study of the meteorologist, the hard work of the practitioner, and the research of the compiler have all so far been baffled. On the table lies, also, an old ant-eaten musty production written forty years ago, wherein cholera is described as the opprobrium of the medical art. Even at that time saline injections were in favour, just as those of chloral and strychnine are now; and out of 800 medical officers, not twenty believed in the doctrine of contagion of the disease in Bengal. Breaking out and disappearing like an influenza, no one ever thought of shutting themselves up or exacting quarantine. Known under other names by the Greeks and Romans, the first epidemic described in India took place in 1543 at Goa. Neither coasts nor islands, volcanic formations nor mountains, have any exemption, excepting that cholera loves low, damp, cultivated districts; whether on alluvium, laterite, sandstone, trap, or other formations, it mak s no difference. Theories concerning ozone just now are at a standstill; and as regards Pettenköfer's views, neither dry nor moist soils appear to influence cholera.

The subject of the retention of poison in soils wet or damp for an indefinite period, in graveyards, railway cuttings, buildings, clothes, furniture, bedding, straw, woollen materials, ships, etc., is to a certain extent a fascinating, at the same time a very idle research, leading to nothing. In England it was my lot to battle with every kind of malignant fever excepting cholera, sometimes in a cellar or miserable lodging, sometimes in a barrack-room screened off into divisions for four families (a system altogether of the past); and whenever gas was burnt or raw meat kept in a safe, the cases of scarlet fever did badly. How difficult it is, too, sometimes to diagnose and to treat diphtheria, and how for years chlorate of potash and iron did good. In the *Medical Times and Gazette*, Dr. Semple tells us how in Spain (1611), Naples, Sicily, France, Sweden, and New York, epidemics of diphtheria have occurred. What is the connexion, again, between diphtheria, erysipelas, scarlet fever, rheumatic fever, enteric fever, and dengue? In 1872 the whole of this station were racked and paralysed by the latter. In 1873 several of my patients here showed by their symptoms that dengue permanently fastens on the constitution, just as much as syphilis, gout, rheumatism, or scarlet fever. Imported by troopships—for instance, the *Dalhousie* and *Jumna*, from Aden to Bombay and Cannanore, in December, 1871. It appears that in 1872, out of a strength of 58,694 European troops, 7331 were attacked with dengue, and, so long as uncomplicated, without one death; yet it is reasonable to predict that all these will be the more enfeebled when cholera appears. Out of the same strength in the same year variola was fatal to 11 out of 56 cases. Of 6 admissions of scarlet fever, 1 died. No instance of typhus. Out of 778 cases of rheumatic fever, but one died. Taking other ailments—phthisis, 552 admissions, 73 deaths; sunstroke, 202 admissions, 109 deaths; valvular disease of the heart, 195 admitted, 26 died; aortic aneurism, 66 admitted, 33 died; pneumonia, 272 admitted, 39 died. Dysentery killed 109 out of 2571; hepatitis 144 out of 3057. Out of 20,273 instances of intermittent fever, 6 died; out of 7265 instances of remittent fever, 75 died; and out of 200 cases of enteric fever, 110 terminated fatally, chiefly in Bengal.

As regards the diseases of women and children, I am unable to give any idea; but as regards enteric fever—a disease which affects the young, weakly new-comers, who, hurried through the Suez Canal, reach India in the month of March, who eat too much, who defy the sun, and neglect their bowels,—a volume might be written. In addition to climate, there are matters connected with barracks, food, bedding, clothing, drills, recreation, etc., well worthy of minute consideration, irrespective of the water-theory; and, with copious notes of personal experience to refer to, the intention is eventually to work out a paper on this important subject. Dr. Cuningham, alluding to the annual increase of this di

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states that no month was clear—the admission high in September, low in November, the fatal age being twenty-two; and very curiously, in the last ten days of August, almost every station over several enormous areas began to return cases. Four cases of enteric fever were landed from troop-ships and treated at Bombay; one in March and three in November. Noticing the cases this year, although mentioning no name, Dr. Cuningham quotes my own words, written July 18:—"Typhoid is still lurking about; I believe there is nothing wrong with the water, and the wells have a good name. The climate has severely tried all our boys. Every case admitted at first presents grave symptoms, whilst seasoned batteries are perfectly healthy." From April last year, even until now (February, 1874), we have not been free; just as one case has terminated, another crops up. In the hot weather all remedies appear ineffectual; in the cold the disease becomes fairly tractable. Just at Christmas we were encamped fifty miles away at the foot of the Himalayas, when a strong, active sportsman was attacked; and to-day a man complaining of headache, abdominal pain, inability to work or to fix attention on anything, is at once admitted. His tongue quivers, there is a curious cold feel about the wrist, the pulse is small and feeble, the thermometer records 101°, the stools which were black are now ochrey, the skin feels rough. This patient has enteric fever. The worst subjects are light-haired, pink-faced lads, who have had syphilis or gonorrhœa, or have a scrofulous history. Heat being the prime factor, it makes no difference whether a man drinks his beer and rum, or follows my advice to sign the pledge.

REPORTS OF HOSPITAL PRACTICE
IN
MEDICINE AND SURGERY.

THE MIDDLESEX HOSPITAL.

NOTES ON A CASE OF ATTEMPTED SUICIDE.

(Under the care of Mr. LAWSON.)

[Communicated by Mr. H. HAMMOND SMITH, House-Surgeon.]

F. J., AGED 20, an engineer, was admitted into Broderip ward, March 22, 1874, suffering from the effects of bullet-wound of the frontal sinuses.

History.—The patient had been all his life very eccentric in his habits; and on one occasion, having threatened to drown himself, he was sent to Hanwell Asylum, where he remained for six months. On March 21 he bought a piece of gas-piping; having plugged up one end of it with a piece of boxwood, and filed a rough touch-hole in the pipe, he placed the whole in water, so as to cause the wood to swell and fit tightly. While this was soaking, he wrote to his friends, expressing his regret for what he was about to do. He then went on to describe his feelings while waiting until his cannon was ready, and towards morning of the 22nd said all was ready and he had only time for one pipe. Then, loading his cannon with powder and a bullet from some cartridges, he placed the breach against the wall, the muzzle to his forehead, and with a match fired it at the touch-hole.

When admitted he was unconscious; surface cold; pulse slow; pupils acted on by light; no paralysis. Blood was coming from a star-shaped wound in the forehead, just above the nose; round the wound the skin was blackened; the interior of the wound was a mass of *débris*, consisting of the bullet, pieces of bone, and clots of blood, at the bottom of which could be seen the brain pulsating.

The patient recovered consciousness soon after admission; the wound was then enlarged, and, by means of a trephine, two semicircular pieces of bone were removed, one from the lower, and one from the upper part of the wound in the bone, leaving an opening large enough to allow of the bullet and the loose pieces of bone being removed; with the bone came away a small piece of the dura mater. A wet rag was placed over the wound, and the patient left quiet in bed. 9 p.m.: The patient answers questions rationally, but has been trying to get out of bed and occasionally rambling. Pulse 104; temperature 100°.

3rd.—Patient quiet after a restless night; answers questions put to him; passes his urine naturally; is in no pain. Edges of the wound somewhat everted; a portion of the uncovered by dura mater is pushed so far forward as to touch the outer edge of the bone. A piece of plaster lightly laid across the wound, which is dressed in the same manner as before; pulse 92; temperature 99·4°. 9 p.m.: Has been rather restless, with a tendency to ramble, but answers questions properly, and knew his friends when they came to see him. Pulse 104; temperature 101·2°.

24th.—Passed a quieter night; answers questions rationally; bowels not open; takes light food well. The brain has protruded further forward, and the wound is commencing to suppurate. Pulse 88; temperature 99·8°. Ordered a chop for dinner, and a castor-oil enema to clear the bowels. 10.30 p.m.: Pulse 108; temperature 101·9°; has been very noisy; was given one-sixth of a grain of morphia subcutaneously.

25th.—Bowels well opened by enema; slept well after two injections; talks a great deal, but is very rational. Pulse 92; temperature 102·2°. 2 p.m.: Still noisy, so six leeches were ordered behind each ear. 9 p.m.: Has been quieter since he was leeched. Pulse 92; temperature 102·8°.

26th.—Was very noisy during the night, but became quiet towards morning; is quite rational, but very irritable; wound suppurating freely. Pulse 100; temperature 99·4°. 9 p.m.: Has been very restless, and was again given the morphia injection. Pulse 80; temperature 103°.

27th.—Slept during the earlier part of the night, but was more noisy towards morning. Wound is looking very much more healthy; the brain has receded a little; pulse 84; temperature 100°. 9 p.m.: Patient very noisy and talkative, not delirious; given one-sixth of a grain of morphia; pulse 88; temperature 102°.

28th.—Patient had a very restless night; is quite conscious; is complaining of pain all over neck and chest. Wound is healthy, and the edges are granulating and the discharge healthy. Pulse 80; temperature 100·4°. Was ordered pot. br. gr. xx. and an aloes pill. 9 p.m.: Was quieter after the draught, but is now more restless; given one-fourth of a grain of morphia. Pulse 84; temperature 101·8°.

29th.—Passed a quieter night. Pulse 84; temperature 101°. 9 p.m.: Is now very restless. Temperature 101°. Injected half a grain of morphia.

30th.—Was quieter after the morphia, and is much better this morning—quite rational. Wound looks very healthy and is beginning to unite. Pulse 92; temperature 100·2°. Ordered twenty grains of bromide of potassium every four hours until he becomes quiet. 9 p.m.: Has been much quieter after three doses of bromide.

31st.—Passed a fair night, and is quite rational this morning. The angles of the wound have united, leaving a sinus in the centre from which a quantity of yellow pus escapes. Pulse 104; temperature 100·2°. 9 p.m.: Has had a quieter day with the bromide, which is now ordered every six hours. Pulse 84; temperature 100·6°.

April 20.—Has shown no brain symptoms from the commencement of his illness. He has taken a large quantity of food, latterly two chops a day, and is altogether very much better. The wound has nearly closed, but a small quantity of pus oozes away from the lower angle of it. The skin is sunken a little, and rises and sinks with the pulsations of the cerebral vessels.

ST. MARY'S HOSPITAL.

TWO CASES OF BRIGHT'S DISEASE—SYMPTOMS OF HÆMORRHAGE INTO THE PONS VAROLII—DEATH—AUTOPSY.

(Under the care of Dr. HANDFIELD JONES.)

Case 1.—F. M., aged about 60; admitted December 25, 1873. He was brought in insensible. His friends stated that while walking along with them in the street he suddenly complained of giddiness and nausea, and soon fell down unconscious. On admission he was breathing stertorously, at about the usual rate. Both pupils contracted, insensible, and equal. Mouth much drawn to left. Loss of sensation and motion on both sides of the body; the right side is frequently convulsed. The extremities and the surface of the body are cold and clammy. Pulse 70, full and labouring. Six leeches were applied to the temples, but only three took; the bleeding was encouraged afterwards by cupping. Sinapisms were applied to the nape of the neck and calves of the legs, hot bottles to the feet. An injection was thrown up of ol. crotonis ℥v., ol. ricini ʒiv., aq. Ojss, which was wholly retained. After the lapse of half an hour, warm water with turpentine was administered, and

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produced a slight motion. Some improvement followed. He vomited a quantity of dark coffee-coloured matter. His pulse quickened to 100 and was softer, and the respiration became less stertorous. The surface of the body became warmer. More than a pint of urine was drawn off by the catheter, which was pale, specific gravity 1008, and albuminous. His friends stated that he had been a hard drinker, but was not subject to epileptic fits. He died five hours after admission.

Autopsy on December 27.—No trace of anasarca in lower limbs or elsewhere. There was a patch some inch and a half square on the right lower leg, where the skin was blistered, the corium red, and the epidermis raised. There was some effusion of bloody fluid in the meshes of the pia mater at the postero-lateral parts of the two hemispheres, much more on the right than on the left; the cortical substance was not stained, nor were there any extravasated clots. The same was the case still more markedly with the cerebellar hemispheres; bloody fluid infiltrated the pia mater, and occupied the fourth ventricle. There was a very large black clot in the pons Varolii, occupying almost the whole of its interior, and extending some way into the right crus cerebelli. The corpora striata, optic thalami, hemispheres, and cerebellum were normal. A little serum in the lateral ventricles. No miliary aneurisms were found in the pia mater of the hemisphere where blood had exuded. The large vessels at the base of the brain were healthy. Liver normal. Kidneys weighed together barely eight ounces; the right was smaller than the left; the structure looked confused. Body in good condition.

Case 2.—G. C., aged 47, admitted March 30, 1874, about ¼ p.m. He was picked up in the street and brought in by the police. Pulse 84, rather large, jerky. Respirations 22, inspiration *entrecoupée*. Both arms when raised fall totally inert; the legs seem to be quite paralysed. Seems to be quite comatose. Vomits a brownish mucus; there is no smell of liquor in the vomited matter. Pupils equal, very small, but not smaller than is sometimes the case in health. Corneæ glazy. Orbicularis palpebrarum does not act when the edges of the lids are touched. When called to in a loud voice to know if he had pain, he seemed to move his head slightly from side to side as if implying a negative. Some other slight indications of consciousness were observed subsequently, but he died about twenty-six hours after he was admitted.

Autopsy.—Brain appeared pretty normal on the surface; there was some little indication of exudation of blood into the pia mater at the lower side of the left hemisphere; the hemispheres, corpora striata, thalami optici, cerebellum, and medulla oblongata all were free from any evident lesion; both lateral ventricles contained blood-stained fluid. The pons Varolii felt soft at its left antero-inferior part, and on cutting across it a walnut-sized cavity was exposed full of black clot, covered in by a layer of white nervous matter about one third of an inch thick. The large vessels at the base of the brain were healthy. Lungs congested. Heart weighed nineteen ounces; the valves on both sides healthy; endocardium about mitral orifice and valve deeply-red stained. Both kidneys rather shrunken and granular, and weighed five ounces each.

Remarks.—The symptoms of hæmorrhage into the pons were well marked in both these cases, and, taken in conjunction with the suddenness of the seizure, afforded rational ground for the diagnosis which was made and verified at the autopsy. Neither in opium poisoning nor in uræmia is it at all likely that the invasion of the disorder would be so sudden. As to the fatal coma and unconsciousness in these cases, the cause usually assigned is, I believe, anæmia of the nerve centres, produced by compression (squeezing) of the encephalon by the clot. To neither of the above instances do I think this view can possibly apply. The pons was so little (if at all) swollen in either of them that the amount of blood-supply to the hemispheres and the medulla oblongata could scarcely have been at all interfered with. The real cause of the symptoms was, I doubt not, the injury to the nerve-tissue, the effect of which —call it shock or inhibitory action, or what we will—was to cause a functional paralysis of the nerve-cells in the connected centres. This secondary effect in some cases is manifested by convulsions, and we then speak of it as irritation. But the paralysis is caused, I take it, in the same way. The practical importance of this view appears from the admitted hopelessness of any means to lessen or remove the clot, which, in most instances, is already formed when we see the patient; whereas it is at least possible that the secondary and depressing effect may be mitigated, and the nerve-force conserved by remedies. The intestinal torpor in Case 1 was very remarkable, and must be attributed, I think, to the inhibitory effect of the lesion acting on the splanchnic nerves, much in the same manner as faradisation did in Professor Lister's experiments.

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Medical Times and Gazette.

SATURDAY, APRIL 25, 1874.

A DISCONTENTED SERVICE.

According to the last published Navy List, no fewer than six surgeons had resigned their posts in the navy during the last quarter. True, one of these was said to be unfit, but he had sent in his papers and wished for retirement before his illness became so severe as to render him unfit to serve. Another retired to avoid a court-martial; but four remain (men in the prime of life), who, were the navy a popular service, should be looking forward to a long period of active usefulness in it both at home and abroad. The truth is, that the navy is not popular in our profession. Many men, no doubt, like it very well, and are comfortable enough in it; but still there are many little *désagrémens*—things, too, easily remedied—which render the post of surgeon in the navy hardly one to be desired. The whole of these might be removed at small cost, and the service converted into one really popular with our profession; and as we have a new Government, anxious, as we understand, to make things more pleasant and to quiet discontent, both in the army and navy, we may hope for redress by a modest statement of grievances which now exist. Moreover, Sir Alexander Armstrong, the Naval Medical Director-General, has just been reappointed for a fresh period of five years, and may well try to improve the condition of those who serve under him if he can do so.

It seems to us that the half-pay system is at the basis of half the discontent in the naval medical service. It is only full-pay time which counts for promotion and for retirement, and it is hard that a man able and willing to do his duty should upon all possible occasions be shelved on half-pay. Let us say that an officer has served his due time, and has been promoted; as a matter of course he becomes the junior member of his new rank, and is forthwith placed on half-pay

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until such time as a ship or post becoming his rank can be found for him. This is obviously unjust, and makes a man's well-earned promotion anything but a matter of congratulation. This is a matter which appeals to all men, as being only what should be promptly remedied; but there are other and what might seem minor matters, which are very real annoyances to men who live under discipline. Thus there is the question of uniform. In the army there is no question as to who should be saluted and who not, but in the navy there is so little difference between senior and junior officers' uniforms, that the men are often at a loss what to do when an officer whose position is unknown to them happens to pass. This is surely a simple enough matter, and easily enough remedied. Again, in some ships the surgeon before he can go on shore must ask leave from the commanding officer. Under certain circumstances this would be quite justifiable, but in time of peace it is surely too absurd that when a medical officer's duties are over he should be compelled to go to a man who knows nothing whatever of them, to ask leave to go on shore. Still more absurd is the regulation requiring the naval surgeon to accompany any man he sends to hospital, whatever the nature of the case, whether severe or slight. He is not at liberty to use his judgment as to whether the case demands his attention during the journey, but if the case is one of gonorrhœa or of the severest injury, it is all the same, he is bound to accompany the patient. In the army a non-commissioned officer does this in ordinary cases: why the same rule should not prevail in the navy we do not see. In the navy, when the men are mustered, the surgeon has to stand on the quarter-deck to answer for the sick when called. Surely, again, this might be done by a less responsible officer. All these things, though small, are very vexatious, and help to render the service unpopular. There is not the slightest difficulty in remedying them, and so of removing a good many fertile sources of discontent.

But there are other and more serious grievances still. Retirement comes too late. Thus a man is liable to be sent to sea up to fifty-five, when he is far better fitted for work ashore. Retirement ought to come at least five years earlier, and the retiring allowances should be improved. A roster should be kept, the same as in the Marines, for foreign service; and some slight increase of pay should be given on expensive stations, such as the East Indies and China, the West Indies, West Coast of Africa, and Pacific. Six weeks' leave on full pay should be granted for every completed year of foreign service. This is allowed if an officer be serving at *home*,—how much more is it necessary after *foreign* service! An officer invalided home from foreign service for sickness brought on by the exigencies of the service, or by causes beyond his own control, should be allowed six months' full pay in England before being placed on half-pay. These measures would insure constant employment, quicker promotion and retirement, and also general satisfaction. But more than this, and certainly to promote this, the Naval Medical Director-General ought to have a seat at the Board of Admiralty, and a voice there on all matters affecting his department. Till such much-needed reforms are set about we cannot hope for other than a discontented, and therefore in a certain way inefficient, Naval Medical Service.

THE DISCUSSION ON CANCER AT THE PATHOLOGICAL SOCIETY.

The discussion on cancer at the Pathological Society was brought to an end on the evening of Tuesday last, after occupying the time of four entire meetings. On this, as on former occasions, both the "general" and the "local" views of the relation of cancer to the organism were maintained with confidence, and supported by abundant arguments.

Dr. Headlam Greenhow was the first to speak. After briefly reviewing the arguments which had been adduced on either side by the previous speakers, Dr. Greenhow maintained that there was no great divergence of opinion between Mr. De Morgan and Sir James Paget, whom he took as the respective leaders of the localists and generalists. The difference was one more of words than of opinion, for Mr. De Morgan had used terms which implied that there is something in the origin of cancer more than a local change, and had confessed that a constitutional disposition to the disease may be often present without any local development. Dr. Greenhow, for his own part, believed that there is in the origin of cancer a "predisposing" element or a "tendency," which is not to be compared with the tendency to non-malignant local disease, such as hydrocele, nor with the tendency to gout, but with the tendency to tubercle and phthisis. Like tubercle, cancer may attack a whole family, or may descend on one side only of a family; and, like tubercle, it may be latent for years, and suddenly burst out afresh and infect the system by spreading. The local representation of cancer is, according to Dr. Greenhow, less easily accounted for, although injuries are sometimes undoubted factors. While thus insisting upon the general element, the speaker repeated his conviction that there is but little difference between the two views.

Dr. Creighton followed in the debate, and gave an agreeable turn to its character by describing the results of his recent observations on the growth of secondary malignant tumours, as referred to by Mr. Simon on the first evening of the discussion. His investigations had hitherto been chiefly confined to the liver, as the organ where secondary tumours in their origin could most successfully be examined. In the first place, he had found that secondary tumours in the liver may grow from liver cells, and that not by ordinary proliferation, but by endogenous cell-formation; and, in the second place, he discovered that from the liver cells there may arise in this way, not only epithelial, but connective-tissue tumours. We will not, on the present occasion, do more than direct attention strongly to the second of these observations,—so startling in its character, and bound, should its correctness be confirmed, to influence not only the pathology of cancer, but the connective-tissue theory itself. In all instances Dr. Creighton found that the secondary growth presented a remarkable resemblance to the primary tumour, whether that were cancer or sarcoma; and in one case especially a very remarkable arrangement of the stroma was exactly reproduced. Evidently, there is no other relation between such primary and secondary growths but that of parent and offspring; and, taking into account both the general considerations and the histological process as observed, one readily calls the influence of the primary "spermatic." In the primary tumour itself such influence was probably not to be sought for. From his investigations on mammary cancer, Dr. Creighton has rather been led to lay very great weight on the processes of evolution and involution. Two other common seats of cancer are under somewhat analogous conditions to the mamma—namely, the pylorus and the cervix uteri. These are, at the same time, very frequently the seats of catarrh, and Dr. Creighton would trace a connexion between this simple disease and the occurrence of malignant growth. In regard to the constitutional origin of cancer, Dr. Creighton maintained that it is out of place to require such, as long as so many vicissitudes of cells exist to which malignant growth may be referred. When more is known of the evolution and involution of organs we shall be better able to account for morbid growths in general and to explain the differences between their particular forms.

Mr. Rivington commenced his speech like several of his predecessors in the debate, by insisting on distinct definitions of the terms employed. He understood by the "local" origin of cancer its origin in some part of the body out of the tissues

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of that part; and by the "constitutional" origin, its origin in one or several parts in connexion with some pervading condition common to all the parts. Mr. Rivington then declared himself a localist, but in a particular sense, inasmuch as he believed that cancer "arises out of the elements of the part or the neighbouring part," the cells originating from epithelium, or from connective-tissue cells, or from white blood-corpuscles, or from a mixture of all. The same idea had been expressed by Sir James Paget, in his work on "Surgical Pathology," when he spoke of cancer as a "disorderly crowding of cells." To account for this disorderly crowding, the localists, in Mr. Rivington's opinion, could offer nothing satisfactory—nothing beyond "local irritation." To his mind the remarkable arguments adduced by the generalists were much more deserving of respect. And this being the case, he would search the various "all-pervading systems" for one which would satisfy the necessary conditions. The blood naturally first occurred, but this was rejected by the speaker for several reasons; and the nervous system was also dismissed with a mere reference. There was left, Mr. Rivington contended, the great "lymphatic system," including the connective tissues, the synovial membranes, etc. To this system, or rather to the failure of its function, is to be referred the disorderly crowding of cells which constitutes cancer. Certain materials remain in the tissues instead of being taken up by the lymphatics, and the result is obvious. Mr. Rivington supported his view by many arguments—the localisation of cancer in the connective tissue of parts; the occasional origin of cancer in lymphatic glands; the general invasion at once of the lymphatic system by cancer, which has occasionally been observed; the frequency of cancer in organs where there is much change, that is, much lymphatic activity; the temporary freedom from and recurrence of cancer; the subsidence of enlarged glands after operation; the subsidence of tubercle in cancer patients; the occurrence of cancer late in life; its appearance in a different part secondarily from originally; the occasional appearance of the cachexia before a tumour; and, lastly, the details of certain carefully recorded cases. There may be, Mr. Rivington maintained, many kinds of failure of the lymphatic system, and cancer may be the highest of all.

Dr. Broadbent's remarks were chiefly critical, and it was evident that, as these were directed against the generalists only, their author was inclined to the opposite view. The first and third speakers were especially criticised for their attempts to reconcile the two beliefs. Adopting Dr. Payne's definition of the word "constitutional," Dr. Broadbent pointed out how the appearance of cancer was modified by variation of the external or non-constitutional factor, as in chimney-sweeps' cancer, which has almost disappeared within late years. Speaking of the transmission of disease, Dr. Broadbent confirmed the argument derived from the possible diversity of form by adducing examples from the nervous system, where an inherited neurosis may manifest itself so variously in different members of a family. He believed that Sir James Paget's argument from the mamma and uterus as prematurely old organs, liable on that account to cancer, was one which told for and not against the local view, for it made cancer a regular tissue-disease. As for Mr. Rivington's speculations about the lymphatic origin of cancer, Dr. Broadbent said he could not see why this tissue should spontaneously get into disorder.

The President, in making the last reply to Mr. De Morgan's speech, commenced by congratulating the Society on the course of the debate and on the speeches which had been delivered—especially those of Mr. De Morgan, Sir James Paget, and Mr. Simon. Before expressing his own belief on the origin of cancer, Sir William criticised various observations of previous speakers—for example, Dr. Moxon's description of the occurrence of Lieberkühn's crypts in the liver in secondary growths there; Mr. Hutchinson's argument for the belief in the local origin of cancer—that its adoption would preserve many lives; and Sir William Gull's expression that "blood is an indifferent fluid," against which Sir William Jenner protested with all his might, adducing as evidence against such a statement the condition of the blood in fevers, microscopically and chemically, and its spontaneous coagulability in certain states of the system. Sir William Jenner then considered in a remarkably clear and complete way the question of inheritance. He pointed out how the father gives to the ovum the power of development and differentiation; and how, in differentiation, every structure partakes of the qualities of the father. The colour of the eyes, the height, everything may be so inherited; the child grows in the direction of the parent. Not only this, but the order, the date, and the manner of decay are so bequeathed at the instant of impregnation. These are summed up in the expression "constitution." Now, there may be so acquired by the child not only the conditions enumerated, but certain diseased ones. And thus acquired—as, for example, cancer,—the constitutional condition may be lost or be latent for a time, and yet be all-pervading. It was at this point that the President pronounced himself a decided "constitutionalist." Just as some children are described by their mothers as having a fester after every scratch, so (said Sir William) do some men burst locally into cancer when irritation acts on their constitutionally predisposed frame. The spread of the disease, once appeared, is not difficult to account for; although the wandering of cancer cells is more a matter of speculation than a demonstrated fact. Irritation has much more to do with local spread than has migration.

Mr. De Morgan rose to make the reply to which he was entitled, with, unfortunately, far too little time to do justice to such a vast subject. Thanking the various speakers, Mr. De Morgan declared his unshaken adherence to his original belief: throughout the discussion he had felt that all that had been said in favour of the constitutional nature of cancer would apply equally well to every growth in the body—to warts, fatty tumours, and so on. He supported this remark by relating a striking case of a lady who suffered from cancer inherited on the mother's side, and atheromatous tumours inherited on the father's side, and who had at the same time an abundant development of warts. Why, asked Mr. De Morgan, should we ascribe a special condition to the cancer and not to the others? In regard to Mr. Simon's "spermatic influence," he believed the examples given told rather against the existence of such, for the product of spermatic influence should partly resemble the seat of development, and not the source of the influence only. Neither did he consider Mr. Marsh's cases of cancer following injuries in favour of the general view, but the opposite. Any part of the body of such patients would have reacted similarly to the injury. Mr. De Morgan instanced a case where a man died of colloid cancer of the peritoneum while under treatment for compound fracture of the radius, and while recovering in a marvellous manner from the severe local injury. He repeated his original question, Why does secondary cancer so very rarely attack the original seat? and showed how strong an argument this fact was in favour of the causation of the two being essentially different. The blood may become diseased, as has been pointed out by M. Nepveu in melanosis, but only after the development of the primary tumour. The poison is not as in syphilis, and a cancerous mother may bear a child which escapes the disease. Mr. De Morgan expressed his belief in the local origin of cancer in yet another striking way when he said that, taking a case of cancer of the mamma, he believed that, had the mamma been previously removed, cancer would never have appeared at all. Once developed, cancer speedily infects, and it may then be too late to think of curing

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the patient permanently by operation. Mr. De Morgan ended his speech, and with it the discussion on cancer, by thanking the Society, and more especially the speakers, for the attention with which they had received his paper.

CHOLERA AT MUNICH.

It is to be hoped that the recent death of the great painter Kaulbach, by cholera, will induce the authorities of Munich to endeavour energetically to stamp out that disease from their city. Ever since last year the weekly reports have shown a constant succession of deaths there from Asiatic cholera, and the mortality continues up to the present time. Thus there were twenty deaths in the week ending March 28, and fifteen in that ending April 4; on April 8 there were five new cases and two deaths; on the 9th, three deaths and one new case; and on the 10th, three new cases and three deaths. Knowing the situation of Munich well, we are at a loss, at first sight, to see why cholera should be so long endemic there. A large part of the city lies on a level plateau, but not one so level that its thorough drainage is impracticable; and from it the ground slopes considerably downwards to the "rapidly rolling" Isar, the river by which Munich is intersected. No doubt, however, some difficulty does exist with regard to the drainage, or else the presence of one of the greatest living sanitary authorities, von Pettenköfer, would be sufficient guarantee for everything being done that could be done in furtherance of this object. The *Augsburger Allgemeine Zeitung* considers that there is probably some fault in the construction of the sewers of the streets and houses, while the fault is attributed by others to the drinking-water. Whatever be the cause, Munich is at present a focus from which it is only too probable that cholera will be redisseminated to other parts of Europe during the present year, if atmospheric conditions be in any way favourable. As it is, a case has been already reported at Augsburg within the last few days. We advise medical men who have the opportunity to dissuade all persons from visiting Munich at present until it shows a cleaner bill of health; but we hope and trust that the time will soon come when the "taboo" may be safely removed from one of the most beautiful and interesting of modern cities.

THE WEEK.

TOPICS OF THE DAY.

We understand that Captain Mercier has announced to the Committee of the Hospital Saturday movement that, in order to leave them free at their conference with the Mansion-house Committee, he intended to resign his position as chairman.

We may derive satisfaction from the fact that the beneficial influence on the public health of an improved system of drainage and purer water supply is being attested by the statistics which are each year published by the Registrar-General. In the annual summary for 1873 for London and other large cities we find that the mortality of London for the year was at the rate of 22·5; and excepting 1872, when the death-rate was 21·5, it has never been so low for any two consecutive years since 1840, and "by fair inference never so low in any two years since London existed." In the eighteen great English towns and cities the mortality was at the annual rate of 24·1. It was, as usual, high in all the Lancashire towns, which have yet, it seems, a great deal to do before their inhabitants can enjoy the average health of Englishmen. The mortality rate exceeded 30 in Blackburn and Preston.

We are glad to record that a requisition to the Prime Minister, asking him to give an adequate pension to the family of the late Dr. Livingstone, was on Monday circulated in the House of Commons. An influential deputation also has waited on the Chancellor of the Exchequer and the Secretary of State for Foreign Affairs with the same object in view. We trust these appeals to the Government will meet with a liberal response, that the great traveller's family may be well and comfortably provided for, and a nation's gratitude testified for his self-abnegation in unwearied years of hardship and toil in the exploration of Africa, and in the suppression of the East African slave trade.

The new mortuary at Islington was opened on Monday; it is erected in the chapel-of-ease ground at Holloway, and combines a court for the holding of the coroners' inquests. The addition of this court to the usual accommodation of public mortuaries is an improvement we hope to see generally adopted. The holding of coroners' courts in public-houses has been long since condemned—on, as we think, very sufficient grounds.

Sir John Lubbock has introduced into the House of Commons a Bill to amend the Act of the 55th year of King George III., chap. 194, intituled, "An Act for better regulating the Practice of Apothecaries in England and Wales."

The appointment of a Select Committee of the House of Commons to inquire into the hardships imposed on retail dealers by the working of the Adulteration Act of 1872 will give general satisfaction. The glaring defects of that Act have been so frequently the subject of comment in these pages that further remark upon them is unnecessary. The experience gained by the administration of the Act of 1872 will necessarily be most valuable. It will be a source from which the Committee will derive most important practical suggestions for the rectification of the deficiencies and muddled provisions of that Act. The public mind is thoroughly aroused on this question of adulteration of food and drink. The enormous scale upon which this dishonest and fraudulent trading has been carried on by our mercantile classes is now ascertained and understood. It is a national reproach and disgrace which has been too long permitted to exist. We trust we may look forward to such an amendment in the law as will remedy the anomalies at present found to exist, both in respect to the retail and wholesale dealer, and that the prospective legislation on this subject will show that Parliament has grasped its difficulties, requirements, and vital sanitary necessity, and provided for them in an enlightened, liberal, and comprehensive spirit.

During the month of March last, in the eight principal towns of Scotland, scarlatina was the most fatal of the epidemics, having caused 176 deaths, or 6·4 per cent. of the whole mortality; thus, 6·3 per cent. of the deaths in Glasgow, 10·8 per cent. of the deaths in Paisley, 10·9 per cent. of the deaths in Greenock, and 13·0 per cent. of the deaths in Dundee were caused by scarlatina.

We are glad to observe that the grievances of the members of the Army Medical Department are likely to receive the full consideration of the present Secretary at War. Our contemporary, the *Army and Navy Gazette*, says—"It is stated on good authority that Mr. Hardy is prepared to go fully into the matter of the discontent now so prevalent among the members of the Army Medical Department consequent upon the substitution of the staff for the regimental system. Whoever could have suggested the late change?" The new Warrant has been in operation now for just over twelve months, and not a single voice is raised in favour of it.

At the meeting of the Lindsey (Lincoln) Quarter Sessions, held last week, complaints were made that the public analyst, Dr. Lowe, delayed his certificates of articles submitted for analysis so long that the Adulteration Act became a dead-letter. No fault was found with the ability of Dr. Lowe, but it was supposed he had so much to do in practice that he could not devote sufficient time to his official duties. After some discussion it was ordered "that a letter should be

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sent to Dr. Lowe requesting him in future to send in his analyses within a reasonable time."

We are pleased to note that the Sanitary Committee of the Corporation of London is quite alive to the importance of a vigilant discharge of the duties it has undertaken. In the report issued by the Corporation on the sanitary condition of the Port of London, attention is drawn to the fact that vessels frequently arrive in the Thames, and haul into dock, with emigrants from various parts of Europe, who are embarked at Hamburg, Rotterdam, Stettin, and other Baltic ports, and sent to London for transhipment to Australia, New Zealand, and other British colonies; and that these vessels often come from ports infected with, or suspected of, cholera. The Sanitary Committee have, in consequence, directed their medical officer to examine all such vessels before they haul into dock, and to use all possible means to prevent the importation of epidemic diseases by way of the Thames.

At the quarterly meeting of the directors of the Naval Medical Compassionate Fund, held on the 14th inst., Sir Edward Hilditch, Inspector-General, in the chair, the sum of £60 was distributed amongst the various claimants.

An International Medical Congress will be held next year in Brussels, of which Dr. Vleminckx, the president of the Belgian Academy of Medicine, will be the president.

On the 3rd instant a meeting was held in New York for organising measures to promote the adoption of cremation for the disposal of dead human remains. The proposal appears to meet with favour, both in that city and its neighbourhood.

VISIT OF THE QUEEN TO THE ROYAL VICTORIA HOSPITAL AT NETLEY.

The Queen, accompanied by Princess Beatrice and Prince Leopold, paid a visit to the Royal Victoria Hospital at Netley on Friday, the 17th inst., to see the sick and wounded officers and men of the late Ashantee Expedition. The Royal party was received by Colonel Evans Gordon (the commandant) and Surgeon-General Balfour, who—along with Surgeon-General Longmore, C.B., Deputy Inspector-General Maclean, C.B., Dr. Parkes, and Mrs. Deeble, superintendent of nurses—conducted her Majesty over the Hospital. On the same occasion Dr. Fleming (Pathologist to the Ashantee Expedition), Dr. Bleckley (principal medical officer of the *Victor Emmanuel*), and Surgeon W. R. Kynsey (who served at Amoaful and Coomassie with the 42nd Highlanders), had the honour of being presented to her Majesty by Surgeon-General Balfour.

Her Majesty had expressed a desire to see the now celebrated hospital-ship *Victor Emmanuel*, but in the absence of a convenient landing stage this was found to be impracticable; the Royal yacht, however, was taken as near as possible to the vessel on the return to Osborne. It is rumoured that instructions have been issued from the Admiralty to have the *Victor Emmanuel* cleared of all stores put on board for use during the war, and preparations are being made by the various departments to carry out these orders. It would appear, therefore, that it has not yet been definitely settled whether she will remain for the present at anchor off Netley Hospital to receive patients from India, although the crowded state of the Royal Victoria Hospital (consequent upon the pressure placed upon its resources through the arrival of the Indian troopships with the annual batch of invalids) would render such a determination very desirable.

THE PROPOSED ROYAL VISIT TO HASLAR HOSPITAL.

Much disappointment was felt amongst the Ashantee invalids in the Naval Hospital at Haslar when it became known that the visit of the Queen, which was to have taken place on the 21st inst., had been postponed. It would appear that as there are some cases of scarlet fever at present in hospital, her Majesty's medical advisers recommended the abandonment of the inspection. These cases are treated in a detached building at the rear of the hospital, and as this fact was immediately made known at Osborne, it was hoped that eventually the Royal visit might be paid.

There are at this time fifty-five patients at Haslar on the medical side, all of whom have been invalided from the Gold Coast; this number includes one officer and one warrant officer. The majority of the men are convalescent, but one death occurred so recently as Monday last—a bad case of enlarged liver. On the surgical side of the hospital there are six Gold Coast invalids—one suffering from the loss of an eye, and the rest from slug wounds of the lower extremities. It is unfortunate that the kind intentions of her Majesty have been frustrated, and the disappointment is the greater at Haslar, on account of the recent visit of sympathy to Netley. There appears, however, to be no intention of giving up the naval inspection at Clarence-yard, which will take place as originally fixed, on the 23rd inst.

THE DINNER OF THE ROYAL MEDICAL BENEVOLENT COLLEGE.

It is not often that a larger meeting of the members of our profession, and of those intimately connected with them, is seen than that which on Wednesday evening sat down, under the presidency of the Prince of Wales, to dinner at Willis's Rooms. The success of the Royal Medical Benevolent College is now an assured matter; nevertheless, the interest shown in it by his Royal Highness will certainly tend to fan the flame of its reputation. Among those present were the Duke of Teck and Earl Granville, and many eminent members of our profession, including Sir George Burrows, Bart., Sir William Fergusson, Bart., Sir William Gull, Bart., Sir James Paget, Bart., Sir Henry Thompson, Mr. Curling, Mr. Hancock, Mr. Erichsen, and many others equally well known. The subscriptions were liberal, and over £2000 was collected in the course of the evening.

This is hardly the place to enter into details as to the exact relationship of the Royal Medical Benevolent College to the profession; still there are certain facts which are of importance. The so-called College consists of two totally distinct sections, a school and a series of almshouses. Everyone who has anything to do with the institution regrets that these two antagonistic constituents were ever united in one building. In most cases the pensioners would be far happier and more comfortable surrounded by their friends and relations, and the rooms now occupied by them would be available for school purposes. The school, again,—which is an admirable one—in many ways suffers from its title. There is nothing "benevolent" whatever in it to the great mass of the pupils, who pay their way as they would do elsewhere. It would be greatly for the benefit of both if the present close association between the pensioners and the boys could be broken up.

THE POOR-LAW MEDICAL OFFICERS' ASSOCIATION AND THE HOUSE OF COMMONS.

We have received a copy of two petitions which the Council of the Poor-law Medical Officers' Association has drawn up for presentation to the House of Commons. The first petition prays for reform in the administration of the enormous sum annually expended for poor-relief, which administration is most unsatisfactory in the provincial towns and rural districts of England and Wales, on account of the great extent of many of the districts, the limited stipends paid to, and the provision of all medicines by, the medical officers. To relieve this state of matters it is petitioned that district dispensaries, as recommended in the Report of the Royal Sanitary Commission, should be established throughout the country. The petition further requests that no additional duties under

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Public Health Act of 1872 be imposed upon district medical officers, unless provision be made to provide suitable remuneration for such increased services. The second petition prays the House to make it compulsory on boards of guardians to provide reasonable and suitable superannuation of poor-law medical officers who, by reason of infirmity, length of service, or advanced years, are incapacitated from efficiently performing their duty.

HOSPITAL SATURDAY.

Since our last a further conference has been held at the Mansion-house between the Committees of the Hospital Sunday and the Hospital Saturday movement. The object aimed at was to bring about a unanimity of action between the two Committees. The Lord Mayor presided, and Archbishop Manning, Sir Sydney Waterlow, and several other prominent supporters of the fund in question attended. After a lengthy discussion, a proposal was submitted, and finally adopted by a large majority, to the effect that it would be advisable to interchange six members of each Committee. This proposition may eventually succeed in smoothing over the differences which exist between the two bodies; but, as Sir Sydney Waterlow distinctly stated that the original, or Hospital Sunday Committee, would not pledge themselves to accept the resolution, we fear that the harmonious working of the two parties is by no means assured.

THE LAST NEW BARONET.

Sir Philip Rose, who has lately been made a baronet by her Majesty on the recommendation of Mr. Disraeli, is the second son of the late William Rose, Esq., of High Wycombe, who in early life was surgeon in the Indian army. He is a magistrate for Buckinghamshire—where the family has been settled for centuries,—and a deputy-lieutenant for Middlesex. He will also be remembered as one of the founders of the Hospital for Consumption at Brompton, which, it is said, owes its origin to his individual labours, and to which he has filled the post of honorary secretary from the date of its first formation.

WEST KENT MEDICO-CHIRURGICAL SOCIETY.

On Friday evening, April 10, a meeting of the above Society was held at the Royal Kent Dispensary, Greenwich-road; F. Moon, M.B., President, in the chair.

Mr. Warwick Wagstaffe, B.A., F.R.C.S., read a paper "On Intestinal Obstruction, its Causes and Treatment." Mr. Wagstaffe founded his paper upon a case of intestinal obstruction recently under his notice, in which there had been total occlusion for seventeen days, with vomiting and increasing abdominal distension. The obstruction was caused by a hard tumour growing from the left sacro-iliac synchondrosis, stretching across the pelvis, and involving the anterior wall of rectum. Some other portion of the gut was probably also involved, for the hand could be passed into the rectum (after the manner proposed by Professor Simon, of Heidelberg) above the tumour, and the intestine found empty. Mr. Wagstaffe therefore opened the intestine in the right groin, and the patient had since progressed well. After insisting upon the importance of thorough rectal examination, and pointing out the dangers to be avoided in the manipulation, Mr. Wagstaffe examined carefully the means at our disposal for determining the locality of the disease or mechanical defect; and quoted cases which had come under his personal observation bearing upon the various symptoms of importance. He next discussed the kinds of obstruction and their causes (bringing forward illustrative cases), and then dwelt upon the differential diagnosis of these. Lastly, he examined the various kinds of treatment suitable in intestinal obstruction, including gastrotomy, enterotomy, enterotomy, inflation, and medicinal means. He ended by stating, in the form of propositions, the following:—1. That the symptoms of obstruction, though sometimes obscure, can generally be determined in time for the adoption of curative means. 2. That the causes of obstruction can generally be determined by the history of present and past illness, and by thorough external and internal examination; and that manual exploration of the rectum is, perhaps, the greatest advance in our means of diagnosis. 3. That the locality of the disease may be generally discovered by use of the same means of diagnosis, particular attention being paid to internal examination by the rectum. 4. That the early treatment will be the same, whatever the cause—by opium and belladonna, by rectal distension, and, in the majority of cases coming early under notice, by careful external manipulation. 5. That after the failure of such simple means within a reasonable time, and in the presence of general obstructive symptoms, operative measures should be adopted without delay. 6. That if the cause of obstruction be known and within reach and not removable, colotomy should be preferred. 7. That if the obstruction be beyond reach and unknown, tapping the intestine may sometimes be serviceable; that otherwise either gastrotomy or enterotomy must be performed. 8. That gastrotomy, by at first a limited incision for the purpose of exploring and removing mechanical obstacles, is likely to be the most beneficial operation. 9. That above all things it is most necessary to avoid delay, for conditions of strangulation, at first relievable by operation, soon become unrelievable.

The next and closing meeting of the session will be held on Friday, May 1, at 8 p.m. Dr. George Johnson will read a paper.

STATISTICS OF INSANITY AND DISEASE IN THE METROPOLIS.

The reports presented last week to the Metropolitan Asylums Board showed that there were at present 1759 patients at Leavesden Asylum, 469 at Hampstead Asylum, 1824 at Caterham Asylum, 60 at Homerton Fever Hospital, 5 at Homerton Small-pox Hospital, 45 at Stockwell Fever Hospital, and not a single patient at the Stockwell Small-pox Hospital.

IMPENDING SANITARY LEGISLATION FOR IRELAND.

We understand that a Conjoint Sanitary Legislation Committee has been formed in Dublin, to watch any measure affecting the public health which may be introduced in the House of Commons. Delegates from the Parliamentary Committee of the King and Queen's College of Physicians, the Executive Committee of the Dublin Sanitary Association, the Council of the Irish Medical Association, and the Committee of the Irish Poor-law Medical Officers' Association have already been nominated to serve on the Conjoint Committee. There is good reason to believe that the Council of the Royal College of Surgeons will also send delegates, and so aid in this useful undertaking. It is generally believed in Dublin that no sanitary measure for Ireland will be passed, or even brought in, this session, but there are high expectations that next year will witness the enactment of a comprehensive and satisfactory Public Health Bill for that country.

MEDICAL STUDENTS AND THE POLICE.

Under this heading, a paragraph to the following effect has recently appeared in the *Dublin Daily Express*:—

"The attention of the Branch Medical Council of Ireland has been lately called to the fact that certain young men, charged from time to time by the police with riotous or disorderly conduct, frequently describe themselves as medical students, although their names are not found in the authorised list or register of such students. The Council consequently felt it to be their duty to address a letter to the Chief Commissioner of Metropolitan Police, who, on receipt thereof, kindly undertook to furnish to the Council the names and particulars of all persons so charged, and who so describe themselves; and he has recently

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communicated the names of two young men styling themselves 'medical students,' who were charged with breaking a street lamp, but who, on investigation, prove not to be registered as students of medicine. The Council have thus taken the right step towards removing from a most deserving class of our students an opprobrium which now appears to be unmerited."

HEALTH OF LEICESTER.

THE sanitary condition of the town of Leicester would appear to be satisfactory, and to have had considerable influence on the health of the inhabitants. Dr. J. Wyatt Crane, in his report for 1873, states the ratio of deaths per 1000 was 23·013, the lowest mortality of which he had any record in any year. Great attention has been devoted to the abolition of nuisances in the borough, and there appears to have been an entire absence of the existence of any epidemic disease during the last year. The death-rate from the seven principal zymotic diseases ranged from 0·3 and 0·5.

PARLIAMENTARY.—CATTLE DISEASE IN IRELAND—ADULTERATION OF FOOD—REGISTRATION OF BIRTHS AND DEATHS.

IN the House of Commons, on Thursday, April 16,

Sir M. Beach, in reply to Sir R. Buxton's inquiry with reference to the compulsory slaughter of all cattle in Ireland afflicted with pleuro-pneumonia, replied that the Bill now before the House would, he hoped, remove the technical difficulties hitherto experienced in the proper carrying out of the same measures which had proved so effectual a check to the spread of cattle disease in England.

Mr. Sclater-Booth, in reply to Mr. Mundella's inquiry with reference to adulterated articles of food, explained that the local authorities and not the Government must prevent the importation of adulterated food. With regard to the protection of honest traders, the Government have determined to ask the House to appoint a Select Committee to inquire into the alleged hardships inflicted upon dealers by the operation of the Adulteration Act of 1872.

On Friday, April 17,

Mr. Sclater-Booth, replying to Dr. Lyon Playfair's question with reference to the compulsory registration of births and deaths, stated that it was his intention to introduce the Bill on Thursday, the 23rd inst.

In the House of Lords, on Monday, April 20,

The Cattle Diseases (Ireland) Bill, introduced by the Duke of Richmond, was read a second time.

In the House of Commons, on Tuesday, April 21,

Mr. Hardy, in replying to a question, stated that he had not yet obtained the information from Ireland with reference to the alleged breach of army regulations by a medical officer of artillery accompanying his regiment in a dogcart instead of on horseback.

We must not omit to mention here that the Chancellor of the Exchequer, when introducing the Budget on Thursday, the 16th, explained that it was the intention of the Government to contribute to the maintenance of pauper lunatics at the county asylums by a grant of 4s. per week for each lunatic. This would relieve the parishes, and burden the Exchequer to the extent of half a million annually.

JACKSONIAN PRIZE.—The following is the subject for this prize for the present year, viz.:—Tracheotomy, with particular reference to the Causes of Death after the Operation, and the Rules for rendering the Operation more generally Successful. The essays must be sent to the Secretary of the Royal College of Surgeons before Christmas-day next.

CRIPPLES IN AUCKLAND, NEW ZEALAND.—With the view of preventing the enormous influx of deformed persons lately arriving in the port of Auckland, New Zealand, the Harbour Board have resolved to direct the attention of the Government to the question.

ACADÉMIE DE MÉDECINE.—At the last meeting of this body, Professor Owen was advanced from the rank of Foreign Correspondent to that of Foreign Associate, and Dr. Corrigan was elected a Foreign Correspondent. Both elections were unanimous.

PRESENTATION OF ADDRESS AND TESTIMONIAL TO DR. MURCHISON.

THE rapid march of events in these days makes the time seem long since it first became known that many members of the profession, and other persons interested in public health and pure milk supply, had determined to offer Dr. Murchison some tangible and lasting expression of their "sense of the skill and perseverance with which he traced and established the cause of the alarming and fatal epidemic of typhoid fever" which occurred in some parts of the West-end of London last year, and of their sympathy with him in the way in which some circumstances connected with it had affected him personally. But the lamented death of Dr. John Murray, who first acted as secretary to those who desired to make this demonstration, the illness of Mr. Christie, who took Dr. J. Murray's place, and some other circumstances, unavoidably delayed matters till Saturday last, when, by the kind assistance of Mr. Spencer Watson, the necessary arrangements were completed; and a numerously signed address, together with a handsome drawing-room clock and a pair of candlesticks, were presented to Dr. Murchison in the presence of many of the subscribers, Sir Thomas Watson having most kindly consented to add weight and grace to the demonstration by acting as their spokesman.

Addressing Dr. Murchison, Sir THOMAS WATSON said: We wait upon you, Sir, late it may seem, but with unfaded interest in the object of our coming, to express to you our grateful acknowledgments for a signal service rendered to the public, and especially to the dwellers in this part of London: for the zeal, I mean, and the sagacity with which you sought and found the cause, and thereby put a check to the further increase, of a fearful outbreak of disease—disease of a very terrible kind—too well known by the name of typhoid or enteric fever. Of this same disease, you, Sir, after having long been a close observer, under circumstances very favourable for its observation and study, have since become the faithful and lucid historian. Medical science and medical literature are deeply indebted to you for having so well expounded the nature of the disease, its causes, its habits, its direful effects upon the human body, its remedial management, and the means of guarding against its attacks. On this account it might naturally have been hoped that your household, more than most others, might be exempted from its pernicious agency. But *Diis aliter visum*. In the month of July last year the malady lighted upon your family, and traces of its malign influence have not yet, I fear, disappeared from one of its members. You had scrupulously, and with scientific strictness, fortified your house against the entrance of this contagious disorder by any of its ordinary channels of access. Its sudden presence there was a mystery. Soon, however, you began to suspect that the *milk* supplied to your family had been the vehicle of the infection. That milk can readily imbibe, and carry, and impart the poison of this and of some other contagious diseases, has long been known. Inquiries, made first among your medical neighbours, disclosed, in a single day, ten cases of the presence of the disease in families supplied with milk from the same source as yours. At once you communicated your discoveries and suspicions to the respected health officer of the district, Dr. Whitmore; and, taking counsel and comparing notes with another high medical authority, whose fame in connexion with the annals of specific fevers, can never die—Sir William Jenner—you and he came jointly to the conclusion that the cause of the local epidemic lay in the milk furnished by a dairy company of high—and deservedly high—repute, against which (apart from the unmannerly behaviour of some of its officials towards yourself, such as I do not care to notice) I would here make no charge beyond that of a reluctance, natural enough no doubt at first, but prolonged and maintained to an extent scarcely less than culpable—a reluctance to admit a doubt about the absolute purity of their wares, which they honestly thought they had taken means, both careful and effectual, to secure. Eminent sanitary officers of the Local Government Board were presently put in action, and the pestilence was soon tracked to its small, solitary, b[illegible]

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most pestiferous lurking-place; and then, its source being cut off, "the plague was stayed." The history of the whole inquiry is so curiously interesting and instructive, that I am tempted, for clearness' sake also, to rehearse briefly a few of its most salient facts, at the hazard of inflicting upon those who hear me, and upon your ears, Sir, especially, the proverbial tediousness of a twice-told tale. I must begin by stating that at the time immediately previous to the outbreak the West-end of London was known to be unusually free from typhoid fever. On the 22nd of last July three children in your family were taken with that disease. Three days afterwards the two eldest children and an infant were sent out of London. Suspicion of the milk was the less readily entertained at first, because the younger children, who consumed the most milk, were not the first to suffer. But this remarkable fact came out. Two parcels of milk were brought daily to the house from the same dairy; one of them being in a sealed can and called "nursery milk" expressly for the infant and the younger children. This parcel was stopped when the infant went away, and the younger children were put upon the ordinary supply. Six days afterwards they began to show symptoms of the fever. A child was attacked with the fever in Manchester-square, in a house which was *not* supplied with milk from the suspected dairy. But this child, and this child only of the family, had been staying for two days with some friends at a short distance, and each day she had drunk at dinner a tumbler, and at teatime a cup and a half, of milk from that dairy. No other person was ill at her home, to which she then returned. Within a week she sickened of the fever. Meanwhile the family which she had visited went into Derbyshire, and there, in about a week, a son of the family and four of the servants were down with the fever. A fifth servant, who remained in town, also had it. Again, a family consisting of ten persons, living in Grosvenor-square, procured their milk from their own estate; their servants got theirs from the suspected dairy. This family left town on August 4. Two of the servants had previously fallen ill of the fever, and three others had it after their arrival in the country, the family continuing well. A young lady living at Norwood visited at a house in Seymour-street, where she drank a large quantity of the suspected milk. She returned to Norwood on July 23, and on the 26th was taken with typhoid fever, of which there neither was nor had been any other case in the place. Again, in the Bayswater district four servants were left in a house on board wages. Two of them used the suspected milk, and both fell ill of the fever. The other two used the Swiss condensed milk, and both remained free from fever. Once more: A duke and a doctor were next-door neighbours. Both had their milk from the same suspected dairy—nay, from the very same can. In the duke's house two severe cases of typhoid fever occurred, and one of them proved fatal. The doctor's family, though it contained children, escaped the disease. The difference seems to have depended (and the fact is very suggestive) upon this—that all the milk in the doctor's house was *boiled* before it was used as food. Various other facts, all pointing in the same direction, were collected and recorded at the time. Those which I have been narrating carry with them the conclusive force of crucial experiments. Of ninety-seven families in this region of the town afflicted about this time with this sore disease, it was ascertained that eight only drew their supply of milk from other sources than the suspected, or, I may now more properly say, the convicted dairy. The amount of disease radiating from this single centre was, indeed, appalling. As the London season was then breaking up, the seeds of the disease must have been scattered in various directions about the country, and we can never know the full extent of the mischief. The magnitude of the evil, however, affords a just measure of the value, Sir, of your services on that occasion. The benefits which the human race derives from the ministration of our profession, in its efforts to cure or to mitigate actual disease, though some few may question them, are great and real. It must be confessed that those efforts, while they certainly do much good, are also sometimes chargeable, through our ignorance or mistaken activity, with doing some harm, and doubtless in many instances they are alike guiltless of hurt or of help. But the benefits resulting from the *prevention* of serious disease, by abolishing its ascertained causes, admit of no doubt or cavil whatever. Permit me to say, Sir, without any thought of flattering you, that in both the beneficent fields of action you have long been a distinguished actor. In order to appreciate the full value of preventive measures, we must think not only of the deaths—which, however, from this one disease, are computed to amount to many thousands annually in these kingdoms; we must not, I say, reckon the dead or slain alone, but also the much greater number who are wounded and made suffering and useless for a time, or are even permanently maimed; and further, among the poorer classes, the vast amount of distress and misery and want occasioned by the loss or disablement of those who should have been labouring for their daily support. To you, Sir, we offer the homage of respectful thanks and praise for your admirable teachings in these matters; and particularly for the energetic perseverance and acumen manifested by you in tracing the evil, recently at work among ourselves, to its fountain-head. I esteem it a great honour to have been called upon to perform my present duty. However else I may have fulfilled it, I feel quite sure that I express the sincere hope of all those of whom I am the feeble mouth-piece, that you may live long in the successful exercise of your noble calling, and continue to adorn the great name you bear; that you may vindicate more and more your claim to the high distinction, though in a different sphere, which the whole civilised world accorded to your renowned namesake and kinsman, Sir Roderic Murchison, in the generation preceding your own—a generation of which, if I may presume to speak of myself at all, I am one of the few stranded remains that serve to mark the fast-receding "tide of time." I hold in my hand, Sir, the inscribed sentiments and the autograph signatures of a large number of your professional friends and others, of whom I am the deputed representative. In delivering this scroll to you, I am also to present, in their name and on their behalf, the small memorial offerings now before you, as a testimony more durable, or at any rate more conspicuous and more often to be seen and remembered, than any fleeting words, written or spoken, could possibly be, of that tribute of respect, esteem, and gratitude which we have long been desirous and anxious to pay you.

Dr. MURCHISON, in reply, said: Sir Thomas Watson, Ladies, and Gentlemen,—I need scarcely say that I feel deeply gratified by the address, with the beautiful time-piece, which has now been presented to me. This gratification is much enhanced by the fact that the presentation has been made by one who has long been the acknowledged head of the medical profession in this country, and whom every member of the profession, who has the honour of knowing him, esteems and loves. I feel, however, that I am quite undeserving of this demonstration and of the complimentary terms in which you, Sir Thomas, have been pleased to address me. On the occasion which has called forth this demonstration I did nothing more than my duty, which was to make known to others the cause of the fever, which had afflicted my own household, as soon as possible after I became satisfied of the cause myself. It was well known before by professional men that typhoid fever could be propagated by milk, to which polluted water had been added, either accidentally or by design; and it appeared to me, when I investigated the circumstances of the outbreak in my own household and among my friends and patients, that all other sources than this of last autumn's epidemic were excluded. The facts which led me to this conclusion are well known, and some of them you have referred to, and their interpretation has been abundantly confirmed by the official investigation conducted by Mr. Radcliffe, Mr. Power, and Dr. Whitmore, which is now completed, and will shortly be published. It is a common observation that good often comes out of evil, and I think it may be said that three good results have been the outcome of last autumn's epidemic in the West-end of London:—1. The publicity given to the facts has led to the discovery that the propagation of typhoid fever by milk, instead of being a rare curiosity in the etiology of disease—so little known that some of the largest vendors of milk in the metropolis were not prepared to admit its possibility—is now known to be a common occurrence. During the past six months some five or six outbreaks of typhoid fever have been distinctly traced to this cause in different parts of the country. 2. The circumstances disclosed by the official investigation of the London epidemic will, I am given to understand, lead to legislation calculated to prevent similar occurrences in the future; and, 3. The immediate result has been that both the consumers and the vendors of milk have been made acquainted with the dangerous consequences that may result from its adulteration even with water, and that the public have accordingly been supplied with much purer milk than before. There is one circumstance connected with the occasion of this meeting which

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I cannot forbear mentioning—viz., that three of those who, I believe, were among its most active originators are not present. Two, Dr. John Murray and Dr. Fuller, have died suddenly and prematurely, the former on the threshold of a professional life of the highest promise, and the latter in the midst of a career of usefulness, eminence, and success. A third, Mr. W. D. Christie, to whose energy and kindness I believe I am mainly indebted for the success of this meeting, has been prevented attending by serious illness, from which, however, I am glad to say, he is happily recovering. I will not detain you with any further remarks, except to express to you, on behalf of myself and my wife, our warmest and heartfelt thanks for the sympathy shown to us during the illness of our children, for the kindness and goodwill evinced towards us in the proceedings of this day, and for the magnificent testimonial presented to us, which will, I hope, remain a valued heirloom in my family long after my term of work in this world is ended.

The address was signed by—Colonel the Hon. W. Stuart Knox, John Wood, F.R.S., Lord Alfred Paget, A. P. Stewart, M.D., J. Burdon-Sanderson, M.D., F.R.S., Mrs. E. Garrett Anderson, M.D., George Lawson, Lieutenant-General Charles Stuart, Campbell De Morgan, F.R.S., Ernest Hart, R. Liveing, M.D., C. F. Maunder, W. D. Christie, C.B., W. R. Gowers, M.D., Robert Clutterbuck, W. O. Priestley, M.D., W. Spencer Watson, Henry W. Fuller, Charles Hallé, Sir Charles Nicholson, Bart., W. H. Walshe, M.D., W. L. Playfair, M.D., Ferdinand Schiller, C. D. F. Phillips, M.D., Harry Emanuel, Lieut.-General T. A. Duke, Sir Wm. Jenner, Bart., M.D., K.C.B., The Baroness Burdett Coutts, Mrs. Brown, Lieut.-General J. E. Landors, W. Fairlie Clarke, W. Harvey, Samuel Sandars, James Morris, M.D., John Gay, Wm. Adams, Percey Boulton, M.D., Sir Thomas Watson, Bart., M.D., G. Fielding Blandford, M.D., C. A. Prescott, Julian Marshall, T. H. Hills, Rev. George Sandby, A. Leared, M.D., Mrs. Laurie, J. Andrew, M.D., W. Sedgwick, N. S. Kerr, M.D., John Easton, M.D., Septimus W. Sibley, Richard Quain, F.R.S., Robert Wigram, Sir Henry Thompson, T. Spencer Wells, Abbots Smith, M.D., Edward Liveing, M.D., Richard Williams, Wilson Fox, M.D., F.R.S., Sir David Deas, M.D., K.C.B., H. Raffles Walthew, W. Leslie, Maurice Davis, M.D., James Alexander, Richard Fennelly, John Alexander, Andrew Stair, James Alexander, Woodbine Cloete, Philip Vanderbyl, Dr. Anstie, G. J. J. Mair, Dr. W. H. Day, Dr. Crucknell, M. Berkeley Hill, Charles Falconer, Sir Charles Lyell, Bart., Joseph Prestwich, F.R.S., Mrs. David Sellar, Mrs. Dennistoun, George Johnson, M.D., F.R.S., George Pollock, W. D. Hertz, T. Wilkinson, M.D., Robert King, M.D., Andrew Fyfe, M.D., Francis Mason, W. Cholmeley, M.D., Thomas Boycott, Paul Jackson, L. M. Rate, Thos. Leckie, M.D., John Watson, M.D., Jos. T. Clover, J. Hall Davis, M.D., Joseph Fayrer, M.D., C.S.I., Isaac D. Chepmell, M.D., R. Taylor, F.R.C.S., F. H. Hicks, F.R.C.S., etc.

LETTERS FROM MADRAS.

No. IX.

ABSCESS OF THE LIVER—CARDINAL POINT IN PREVENTION—CASE.

CLOSELY connected with dysentery is abscess of the liver,(a) another result of the same causes, and especially of cold. The medical authorities here do not look on it as a product of intemperate habits, nor yet as a sequel of dysentery propagated by means of purulent absorption from ulcerated intestines, but purely as an extension of a disease, produced by cold, from the mucous membrane of the alimentary canal to the largest secretory gland which opens into it, just as inflammation of the testis is apt to follow inflammation of the urethra. On this point let me quote from one of the extremely interesting reports of Dr. Cornish, the Sanitary Commissioner of Madras:

"With regard to that particular form of hepatic disease ending in abscess, so fatal to Europeans in India, I have not been able to satisfy myself that the intemperate have suffered in a greater degree than the temperate. The livers of chronic drunkards are nearly always diseased, and in the condition known to pathologists as 'cirrhosis'; but this condition rarely ends in, or is rarely associated with, abscess. The temperate livers, in fact, are generally the most frequent victims of hepatic abscess.

"This particular form of disease is certainly not diminishing in India. Sanitary improvements of stations have as yet been able to effect nothing for its diminution. The disease is more fatal than cholera or fever—that is, it destroys more lives in the British portion of the Madras army; and as yet sanitary and medical science have been unable to devise any effective measures for its prevention. The fact that light-skinned and foreign races are its most frequent victims would seem to indicate that it has some relation either to climatic conditions which are inimical to Europeans, or to modes of life peculiar to Europeans. I notice the subject particularly here, in the hope that the members of the medical profession who may have the opportunity of studying the obscure causes of hepatic abscess will endeavour to add to the general stock of knowledge something more definite and practical than we are at present acquainted with."—*Report of Sanitary Commissioners of Madras*, 1869, p. 8.

This calm sentence of Dr. Cornish's deserves particular attention just at present, when efforts are being made to represent the healthiness of India as being greater than it really is, as a kind of *amende honorable* for a contrary policy in past times.

Example is better than precept; therefore, although I know that "cases" bore many readers, who hate them as they do statistical tables, I venture to add, as an appendix to this letter, the notes of a case which will illustrate the common origin of dysentery and of hepatitis, as well as the treatment of dysentery by ipecacuanha, and the further preventive treatment used for arresting the hepatitis. The pupils and future practitioners at the hospital here have the good fortune to see powerful remedies wielded by their teachers with precision. The two chief remedies in such a case as this are antimony (which, I should also say, is sometimes used by Dr. G. Smith in dysentery), and the hypodermic injection of morphia, so as to subdue the initial irritation, which is followed by afflux of blood, exudation, and abscess.

The case of Mr. B. M. is one of abscess averted; but I need scarcely say that there are plenty of cases which come to maturity, and I will mention one which I had plenty of opportunity of observing, and which will illustrate the insidious and dangerous character of the complaint. (I have no formal notes, but my memory on the main points is exact enough.)

An Englishman, heretofore robust and healthy, in a good position in the railway service, admitted with sleeplessness and something very like delirium tremens. (The frightful frequency of delirium tremens is evident from the fact that you can hardly meet with man or woman who does not know the meaning of the initials D. T.) The patient, however, was quite a temperate man, and by the time I saw him was calm; and his condition was this—symptoms of purulent absorption, combined with a swelling in the region of the liver, and following symptoms of acute inflammation. Such a combination is pathognomonic. The symptoms of purulent absorption were just those that are seen in deep abscess of the mamma or elsewhere—daily accessions of fever; tongue red, and destitute of epithelium; and diarrhœa. With these the patient had a tender swelling extending from the liver and continuous with it down to the level of the umbilicus. This presented symptoms of fluctuation in the middle, and was tapped by means of Diculafoy's aspirator—an instrument in great favour here. About four ounces of pus were withdrawn. The patient was somewhat relieved, but not much, and the operation was repeated twice, with the issue of a small quantity of pus each time. But now the patient's condition became worse rather than better; the diarrhœa was severe, the appetite gone, the nights bad, and it was very difficult to keep him up with the most lavish use of stimulants and nutrients. There was still an enlarged process of liver, extending down the right hypochondrium, and most likely bound by adhesions, but not fluctuating, and free from pain and tenderness, so that it seemed hopeless to try for further relief in that place. There were the symptoms that indicated abscess, but the abscess found had been dried up, and there was most likely another; because in similar cases which have proved fatal, and been submitted to autopsy, large collections are constantly found in the liver. The man must not be left to die, but there was very little or no guide for the place of an exploratory puncture.

The physical examination which had been made of the patient was repeated with even greater minuteness by Drs. Smith and Paul; and the limits of lung, liver, and kid-

(a) For hepatitis, acute and chronic, and abscess of liver, thirty-five Europeans, with eight deaths, and sixteen natives, with three deaths, were treated in the Madras General Hospital in 1872.

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most accurately marked by percussion. On measurement there was a doubtful fractional excess in the half circumference on the right, and there seemed to be some little bulging of the right ribs, though almost imperceptible. Anyhow, it was determined to try. Dieulafoy's needle was plunged deeply into the substance of the liver, and to the great satisfaction of the bystanders the syringe was soon seen to fill with pus. Forty ounces were withdrawn, and in a very few weeks the patient left the hospital well.

Here follows the case of acute hepatitis with dysentery, treated by Dr. George Smith, for procuring the notes of which I have to thank Dr. Brockman, resident surgeon:—

B. M., aged 22 (European), second officer on board the *St. Lawrence*, was admitted on December 5, 1873. He has just arrived from England by sea, and states that for the last week he suffered from frequent calls to stool, accompanied with severe tenesmus and slight tormina, passing at each motion a small quantity of blood and mucus,—at times none at all. Is called to stool almost every hour, each act of defæcation being followed by slight exhaustion. At present he complains of pain in the right shoulder and acute tenderness over the right lobe of the liver. Examination: Area of hepatic dulness normal; pain on pressure chiefly over the right lobe laterally and posteriorly; pain increased on deep inspiration; rigidity of right rectus muscle; skin hot and dry; pulse full, 80; tongue covered with a white fur. ℞. Pulv. ipecac. grs. xx., mucil. q. s., misce; fiant pilulæ iv.; to be taken every sixth hour day and night. ℞. Liq. antim. ℥xxv., aq. ʒj., misce; fiat haustus; to be taken every third hour day and night in the intervals of the ipecacuan doses. Bran poultices to abdomen and hepatic region every three hours day and night. Diet: milk; milk, Oj. extra; soogee, Oj.

December 7.—Had three motions last night, which were copious, yellow, and watery, containing no blood or mucus. Had fever last night. Temperature at midnight 103° Fahr. Fever left him towards morning in a state of free perspiration. Breathing hurried. Continue treatment.

8th.—Had four motions yesterday, and three during the night; they are yellow, watery, and contain no blood or mucus. Breathing less hurried. Abdominal tenderness and pain in the shoulder less. Continue treatment, and give the hypodermic injection of morphia (grs. iv. to ʒj.) ℥vij. at bedtime if necessary.

9th.—Pain in the shoulder less. Abdominal tenderness has diminished. Bowels have been moved five times during the last twenty-four hours; the motions are not accompanied by tenesmus, and consist of yellow fæculent matter containing no blood or mucus. ℞. Pulv. ipecac. grs. xx., mucil. q. s., misce; fiant pilulæ iv.; to be taken morning and evening. Other medicines to be continued.

10th.—Had no fever yesterday; no tenderness of abdomen, or pain in the shoulder; respiration easy; had four motions yesterday, which were yellow and watery; tongue foul. Vomited last night after the dose of ipecacuan. Continue treatment.

11th.—Has no abdominal tenderness or pain in the shoulder. The bowels were opened twice yesterday, and five times during the night; the motions are scanty and watery—probably due to the milk in his diet. Omit the extra pint of milk ordered, and continue one dose of the ipecacuan at bedtime. Continue treatment.

12th.—Had one motion yesterday without tenesmus, which was scanty, yellowish, without blood or mucus; has no abdominal tenderness; his tongue is foul. Omit the ipecacuan; continue the antimonial mixture three times a day.

13th.—Had two semi-consistent motions yesterday, none last night; they were of a brown colour. Tongue cleaner this morning. Continue treatment.

15th.—Bowels regular; had two motions yesterday; tongue clean; complains of slight pain in the right loin over the kidney; reaction of urine, acid. Omit antimonial mixture. ℞. Pot. bicarb. gr. xv., aq. oryzæ calidæ ʒiv., misce; fiat haustus; to be taken three times a day.

17th.—Is doing well; bowels regular; tongue clean; urine feebly acid. Continue treatment.

19th.—Appetite improving; bowels regular; tongue clean. Chicken diet.

20th.—Discharged at his own request, feeling quite well.

Mr. Alexander Wynter Blyth, M.R.C.S., has been appointed Public Analyst for Devonshire.

LETTER FROM THE GOLD COAST.

(*From our Special Correspondent.*)

Reports of Cases on board H.M. Hospital Ship "Victor Emmanuel," Cape Coast Castle.

(*Continued from page 437.*)

Case 14.—*Dysentery—Death—Post-mortem Results: Very severe Ulceration and Perforation.*

Private P. C., 42nd Highlanders, aged 25; served five years and eight months, of which two months were on the Gold Coast. Admitted to hospital-ship, on the evening of February 23, for dysentery contracted twelve days before in the front. He was carried on board in a most prostrate condition, greatly emaciated, body covered with bullæ and livid patches of ulceration; eyes and cheeks so sunken as to give him a death-like expression; pulse 100, and extremely feeble; temperature 99°; mind wandering; bowels moved involuntarily; tongue dry, and coated with a yellow fur; stools frequent, and consisting of dark-coloured bloody mucus. Ipecacuanha in small doses was prescribed, with turpentine fomentations, and a starch and opium enema; and beef-tea and brandy, with milk and eggs, were administered frequently. Little change was noticed on the 24th and 25th, except that towards the morning of the latter day he became very restless and feverish, and was almost quite collapsed on the morning of the 26th. Ten grains of Dover's powder, with five grains of quinine, were ordered three times a day, with repeated fomentations and sinapisms to the abdomen; and his strength was kept up by constant supplies of nourishment and of stimulants in small quantities at a time. He complained of great heat and pain over the lower part of the abdomen, which evinced much tenderness on pressure. Stools very fetid, dark-coloured, and containing bloody clots; stomach very irritable. February 27: Pulse 100; temperature 99·2° at 8 a.m., and at 5 p.m. 99·8°. He sank gradually throughout February 27 and 28, and died at 5 a.m. on March 1. The stools at the last were greenish, fetid, watery fluid, and the matter vomited was much the same in character.

Post-mortem Examination, six hours after Death.—Externa appearances: Body much emaciated; livid circular spots and some superficial ulcers, about the size of a threepenny-piece, were observed on the back of the neck and on the arms and chest, probably scorbutic. Head and chest: Nothing worthy of special note was discovered. Abdomen: Liver normal in size, structure pale and friable, and capsule adherent in places. Gall-bladder full of thick inspissated bile. Spleen soft; capsule adherent. Kidneys congested. Congestion of the mucous membrane of the cardiac end of stomach. A large ulcer, three-quarters of an inch in diameter, was found just outside the pylorus, in the commencement of the duodenum, and almost perforating its coats. Contents of the large bowel were found effused around the caput cæci from perforation, and in the same locality was noticed recent exudation of lymph and dark gangrenous discoloration. Recent lymphy exudation existed about the bladder, gluing together the convolutions of the small intestines to one another, to the sigmoid flexure of the colon, and to the upper part of the bladder. Large and small intestines distended with gas; lower part of the ileum highly congested and thickened, with spots of commencing ulceration. Lower half of the caput cæci separated as a slough. Large oval ulcers—the large diameter transverse to that of the bowel, and varying in diameter from one inch to two—were common in the whole course of the intestine. A large perforating ulcer, one inch in diameter, with dark-looking and regular edges (as if punched out), was noticed at the lower part of the sigmoid flexure, surrounded by lymphy exudation. Peritoneum rough from patches of recently effused lymph. Large intestines, from caput cæci to rectum, much thickened and ulcerated, especially towards the latter, and soft and gangrenous in places.

Neither in this nor in any of the previous post-mortem examinations have any parasites been detected.

Case 15.—*Remittent Fever—Death—Post-mortem Results.*

Private J. S., 42nd Highlanders, aged 24, service nine months, including two on the Gold Coast, was admitted to the hospital-ship on the afternoon of February 26 for remittent fever. He was attacked three days before, on his arrival at Cape Coast Castle from Coomassie, but would appear from the statement of a comrade to have had a previous seizure on the

1st or 2nd of the month. He was transferred to us from the hired transport *Nebraska*, just on the eve of our departure for England, in a very low typhoid condition, and almost in a state of collapse. Pulse weak and compressible; tongue dry, hard, and brown; skin cold, moist, and clammy; delirious, roused with difficulty, and quite unable to give any account of himself. A full dose of Warburg's tincture was at once prescribed, stimulants and beef-tea administered, an ice-bag applied to the head, and a special attendant told off to look after him. He never rallied, and died thirty-eight hours after admission.

Post-mortem Examination, five hours after Death.—External appearances: Body well nourished. Head: Great congestion of the vessels of the pia mater on the hemispheres and between the convolutions, and much sub-arachnoid effusion. Congestion of vessels at the base of the brain and of the medulla oblongata; half an ounce of serous fluid in lateral ventricles; choroid plexus and velum interpositum congested; puncta vasculosa well marked; brain substance firm. Chest: No appearances deserving special notice. Abdomen: Liver extended as far as the upper border of the fourth rib; substance slightly congested, and softer than usual; no reaction with iodine; capsule adherent in places; gall-bladder full. Spleen enlarged; marks of three stellate-shaped cicatrices on its surface; structure soft and pulpy; Malpighian bodies well marked; capsule adherent. Both kidneys showed some congestion of their cortical substance. Some congestion was observed of the mucous membrane of the stomach, near the pylorus and along the lesser curvature. Brünner's glands in the duodenum and jejunum very prominent. Prominence of the simple follicles and solitary glands was noticed throughout the whole extent of the ileum, which bowel showed considerable congestion towards the ileo-cæcal valve, with elevation and commencing ulceration of Peyer's patches. Ileo-cæcal valve much thickened. General congestion and thickening of the mucous membrane of the large intestine, but no ulceration.

Case 16.—*Pyæmia—Death—Post-mortem Results.*

Private J. M., 42nd Highlanders, aged 34, service fifteen years, including nine years in India and two months on the Gold Coast. Landed at Cape Castle on January 6, 1874, and took part in the capture of Coomassie, as well as in all the prior engagements. On the evening of February 6, while crossing the Dah, he got thoroughly drenched, and was obliged to remain all night in his wet clothes. To this he attributed his illness. On the 7th he felt unwell, but managed to accomplish the march; on the 8th he was unable to struggle along any further, and consequently reported himself sick. On the evening of February 19, after a very toilsome and weary journey down-country in a hammock, he was admitted to the *Victor Emmanuel*. His condition on arrival was one of great prostration; pulse 110, small and compressible; skin yellow, hot, and pungent; temperature 104·5°; tongue dry, and coated with a dark brown fur; expression anxious; intense thirst; headache and throbbing of carotids; tenderness over epigastrium, and bilious vomiting; urine scanty, high-coloured, with an acid reaction, and not coagulable. February 20: Slept badly; at 7.30 a.m. temperature 103°; pulse 95; skin moist; tongue softer; vomiting less troublesome. About 5 p.m. his skin again became dry and burning, and the headache, gastric irritability, and intense thirst returned; temperature rose to 104·8°, and pulse to 115. After a few hours profuse perspiration set in, and he became relieved. February 21: Slept better; at 7.30 a.m. temperature 102°; pulse 89; tongue soft and cleaner; expression more hopeful. At 5 p.m. his temperature again rose to 103°, and pulse to 101, and the vomiting, headache, and thirst returned. After five hours was relieved by copious diaphoresis. The reports for the 22nd and 23rd are almost identical with those of the two preceding days. February 24: Morning temperature 102°, pulse 90; evening temperature 103°, pulse 102. February 25: Morning temperature 101·5°, pulse 91; evening temperature 103°, pulse 96. During the 24th and 25th his condition continued much the same as already stated. February 26: Passed a very restless night, and appeared decidedly worse. At 7 a.m. his temperature had reached 105°, and pulse 117; he complained of pain and swelling of the lymphatic glands in the neck, and of difficulty in swallowing, and seemed to be lapsing into a listless state. In the afternoon his temperature had fallen to 104°, and pulse to 108, but these again rose to 106° and 122 respectively at 9 p.m., when his condition became very alarming. February 27th: Sleep much disturbed with distressing dreams; morning temperature 106·4°, pulse 122. The left elbow now became much swollen, inflamed, and painful; the inflammation showing no limiting line, but fading insensibly into the surrounding skin. In the evening the temperature had fallen to 104·8°, and pulse to 118, and he was evidently losing ground. Large vesicles and bullæ now showed themselves on the posterior aspect of the elbow-joint and on the upper part of the right forearm. February 28: Passed a most restless night; morning temperature 102°, pulse 110; the bullæ had burst and formed ulcers, while fresh crops appeared over the inflamed part, which became more swollen and tense. In the evening his temperature was 104°, pulse 135, and so weak that it could with difficulty be counted; ulcers commencing to slough, and fresh ones forming from the rupture of other vesicles and bullæ. Condition hopeless. March 1: Became worse during the night; delirium set in, with muscæ volitantes, subsultus tendinum, and paralysis of the sphincters, and at 6 a.m. he expired. Treatment for several days after admission consisted of quinine in large doses (sometimes to the extent of thirty to forty grains in twenty-four hours), Warburg's tincture, etc. After the appearance of the erysipelas, tinct. ferri perchlorid. and spirits of chloroform were combined with the quinine. Stimulants, with abundant nutriment, were administered throughout the progress of the case.

Post-mortem Examination, thirteen hours after Death.—External appearances: Body much emaciated; patches of superficial ulceration on back part of left arm, and one circular patch on the tubercle of left tibia. Right arm much swollen and œdematous about the elbow-joint; extensive ulceration of the posterior aspect of the joint, communicating with deep-seated abscesses. A small subcutaneous abscess in the wall of the abdomen, two inches above the umbilicus. Head: Congestion of the vessels on the surfaces of the hemispheres, and much sub-arachnoid effusion; thickening and opacity of the arachnoid over the hemispheres. Chest: Old adhesions of the whole surface of the upper lobe of left lung to the walls of chest, and recent adhesions of the base of the same lung to the diaphragm. About ten ounces of sero-purulent fluid were found in the left pleural cavity, the walls of which were rough from recent lymphy exudation. Recent adhesions of the anterior surface of the lower lobe of right lung, and about eight ounces of sero-purulent fluid in right pleural cavity, the walls of which in like manner were roughened by recently effused lymph. Small circumscribed collections of pus were generally noticed over the whole surface of both lungs, and purulent depôts, varying in size from a millet-seed to a marble, were found throughout the substance of both. Heart large, flabby, and its structure soft. Abdomen: Liver normal in size, smooth on the surface, and of a deep slate colour; structure soft. Gall-bladder much distended with inspissated bile. Spleen enlarged, extremely soft, almost diffluent, and with an adherent capsule. Small purulent deposits beneath the capsule, and in the pyramidal and cortical portions of either kidney. Bladder full. Lumbar and mesenteric glands much enlarged. Congestion of the cardiac end of the stomach. Patches of congestion in the descending colon.

FROM ABROAD.

Syphilis communicated by a Midwife.

M. Bardinet, one of the Professors at the Limoges Medical School, read a paper at the last meeting of the Académie de Médecine, which produced quite a sensation among the members present—as well it might. Its title was "Syphilis communicated by the Finger of a Midwife to a great number of *Accouchées* of the Town of Brive, and transmitted to the Husbands and Infants of several of them." The following is a summary of the statements contained in it:—

Early in 1873 the town of Brive was in the enjoyment of a good sanitary condition, and the results of confinements being especially favourable, when it became known that some women recently delivered were the subjects of syphilitic symptoms, which were participated in by several of their husbands and infants, some of the latter dying in consequence. Discords arose in families that had borne unexceptionable characters. After a while it was discovered that all the women who had so suffered had been attended by the same midwife, and that this midwife had a bad finger, there being an ulcer

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at the edge of the nail, traces of which still existed a twelvemonth afterwards. How this ulcer arose she could give no definite account, but some time after its appearance she became ill and emaciated, exhibited a scaly eruption, lost her hair and eyebrows, and suffered much from neuralgic pains. Shortly after her husband exhibited very similar symptoms. During eight months, between February 28 and October 29, fifteen women whom she attended became ill, to which number have to be added eight of their husbands and nine of their infants—*i.e.*, thirty-two individuals. This is, however, very far short of the entire number, the majority of the persons affected refusing to incur publicity by avowing the fact. From the inquiries which he made among the practitioners of the town, M. Bardinet believes that he is justified in considering the total of the cases to exceed one hundred. The practitioners of the place at once recognised the nature of the affection, and several of the persons affected pursued the midwife in a court of law. In March of the present year she was sentenced to two years' imprisonment and a fine of fifty francs.

M. Bardinet was employed by the court to examine into and report upon all the medical facts of the case. He found that towards the end of the first month after delivery, oftener during the second month, and sometimes during the third, a more or less abundant pustular eruption had appeared, commencing at the genital organs, and extending over the whole body. This was followed by lassitude, neuralgia, pains in the joints, desquamation of the palms of the hands and soles of the feet, and in almost all the cases great loss of hair. Among the husbands of these women, seven escaped contagion, but there is reason to believe that they had not cohabited with their wives; but the eight others, who had connexion with their wives not long after delivery, exhibited well-marked syphilitic symptoms. Among the infants the eruption appeared in some at the end of a week, and in others at the latest before the end of the second. Of the fifteen infants of these women, nine suffered from the disease, and four of these died. In none of the cases observed was there either bubo or blenorrhagia present.

Small-pox and Vaccination in the Department of the Rhône in 1873.

M. Perroud, reporting for the Vaccine Committee of the Lyons Medical Society, states that the great diminution of small-pox, which had in 1872 been observed to follow the devastating epidemic of 1870-71, was still more remarkable in 1873. Just as in the Paris hospitals, wherein no cases of the disease have been admitted during the last year or two, the small-pox wards at Lyons have been closed for want of patients; and throughout the department of the Rhône all the public vaccinators are unanimous as to the great diminution of the disease, many of them not having met with a single case. The Committee believes that the causes of this immunity are multiple. First, the late epidemic, by clearing off the most predisposed subjects, has thus, at all events for a time, removed the most fertile source of diffusion of the disease. The great zeal exhibited with respect to vaccination and revaccination of late has its part also in this result; and thirdly, there would seem to be much less receptivity of subjects for the variolous poison during the present calm period than prevailed during the late epidemic visitation. The same thing is observed with regard to the vaccine virus, the vaccinations proving much less successful than they did two years ago. Such differences in the receptivity of vaccination, and probably of variola, may occur quite independently of the presence of epidemics; and the Committee quote some observations made at Vicenza, where successful vaccinations formed only 13·68 per cent. in 1846, 51·28 per cent. in 1850, and 60·80 per cent. in 1873, epidemics prevailing in none of these years. As always happens, the more or less complete absence of variola during 1873 has been attended with great neglect on the part of parents in having vaccination performed, notwithstanding the recent experience of the disastrous effect on the non-vaccinated in the late epidemic. In spite of all the exertions of the vaccinators, only 4516 vaccinations have been performed in place of 5057 in 1872, and 7860 in 1871.

Return of Lunatics in Paris during 1873.

The disposal of lunatics in Paris takes place under the authority of the Préfet de Police, and individuals supposed to be the subjects of insanity are sent to a special infirmary attached to the Préfecture, where they are submitted to a medical examination. If they are pronounced not to be sane they are at once set at liberty, while in the contrary case they are sent by the administration to the St. Anne Asylum, from which establishment the patients are distributed to the different hospitals and hospices, a limited number of either sex being also retained there for treatment, and, prior to the recent decree of the Préfet de la Seine, for the purpose of clinical instruction.

According to the statistics for 1873, published by Professor Lasègue, of the entire number of persons submitted to examination—viz., 2507 (1450 males and 1057 females), 1322 (660 males and 662 females) were admitted on the demand of their friends or on complaint of their neighbours; 411 (280 males and 130 females) had caused scandal in the public streets, but had not committed actual crimes; and 774 (510 males and 264 females) were under a state of preventive arrest, or condemned and detained on account of crimes. Thus nearly one-half of the whole number were accused or convicted of infraction of the law, which is to be considered a sufficient justification for confiding to the official charged with watching over the public safety the disposal of the lunatics entrusted to him. Of the whole number only forty individuals were provided with sufficient resources to allow of their being treated either in the national establishment at Charenton or in private asylums. The others were provided for, either in part or wholly, at the expense of the department. There were also 283 individuals who, after medical examination, were either set at liberty or transferred to the general hospitals as non-lunatic patients. The number of persons suffering from "alcoholism" in its different degrees, and sent either to asylums or discharged after remaining some time in the infirmary, in 1873, was 556—*i.e.*, 456 men and 100 women. In this number are comprised only the cases in which the "toxical insanity" was developed exclusively under the influence of excess of drink—mixed cases, in which the alcoholism only represented a complication of prior aberration of the intellect, not being included.

REVIEWS.

A Treatise on Rheumatic Gout, or Chronic Rheumatic Arthritis of all the Joints. By Robert Adams, M.D., A.M., Regius Professor of Surgery in the University of Dublin. Illustrated by Woodcuts and an Atlas of Plates. Second edition, pp. 568. London, Dublin, and Edinburgh. 1873.

The first edition of Dr. Robert Adams's treatise appeared in 1857, and during the period that has since elapsed the author's views have been confirmed as to the truth of the descriptions and delineations he originally offered to the profession. The number of wood engravings, however, has been augmented, and the size of the volume has been increased; and we may state, *en parenthèse*, that the type is remarkably good, the size of the pages ample, and the perusal of the text, therefore, very easy and agreeable. A chapter on bursal tumours symptomatic of rheumatic gout has been added, together with an account of simple bursal tumours not symptomatic of any special disease.

It will be remembered that Dr. Adams regards chronic rheumatic arthritis, or rheumatic gout, sometimes as a constitutional and sometimes as a local disorder. When it is observed to affect almost all the joints in the same individual on both sides symmetrically, it may be fairly assumed to take its origin in some deep constitutional taint, probably from a previous attack of rheumatic fever; in other cases the chronic disease originates, without any precursory fever, from sudden exposure of the body to cold after it has been overheated by hard labour; and moreover, as a purely local disease, it has been frequently found to have originated in accident. Dr. Adams rather inclines to the opinion entertained by the late Dr. R. Todd, that the malady prevails more among the labouring poor than among the higher classes; and he agrees with the same authority, that it is more common in Ireland than in England; but he states that he has found in Holland more numerous anatomical specimens exhibiting its post-mortem results than elsewhere, except in Dublin.

In reference to the therapeutical question, Dr. Adams is ready to admit that, after all, the great desideratum at present to be held in view is to determine the best method of treating the disease, and he confesses that he cannot give as satisfactory an answer as might be wished. Still, although there is great difficulty in effecting a cure when the malady has once been fully established, much may be done in the way of palliating

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the symptoms, and the patient may be sometimes so far restored as to be able to resume his ordinary avocations.

Dr. Adams, in his inquiry as to the best method of treatment, considers first the nature of the disease, which, in accordance with the name he has given to it (chronic rheumatic arthritis), he regards as consisting of an inflammatory or sub-inflammatory condition of the parts—an opinion which some authors have controverted, in consequence of the absence of pus or lymph in the affected joints. But, under any view of its nature, it does not appear that either Dr. Adams or any other author recommends anything like active antiphlogistic measures in its treatment. Some mild local depletion and the use of alteratives (especially iodine) appear to be the best means of relieving the affection; and among internal remedies, arsenic and sulphur are spoken of as being highly efficacious, and the presence of the latter element in various springs is supposed to exert a beneficial influence on rheumatic invalids resorting to them. When the synovial membrane, in the early stages of chronic rheumatic arthritis, becomes distended with fluid, the appearance should, in Dr. Adams's opinion, only be regarded as an ordinary or passing symptom of the disease, and not as a prominent feature requiring active surgical interference; and, indeed, the author condemns altogether the practice of making an opening into any large joint so affected.

On the whole, Dr. Adams seems to attach great importance to the use of warm mineral or medicated baths in the treatment of chronic rheumatic arthritis, and in his present edition he repeats the opinions on the subject which he formerly expressed. The precise spot to be selected as a health-resort, and the nature of the bath to be employed, must depend upon the varying constitutions of the patients—the sulphurous waters of Harrogate, Aix-la-Chapelle, and Barèges being most suitable for some cases, and the chalybeate ones, such as those of Spa, Tunbridge Wells, and Langen-Schwalbach, better adapted to others; while those of Buxton and Wildbad, which are strongly impregnated with nitrogen, possess considerable reputation in cases where there is not much inflammatory action.

Dr. Adams gives no general directions as to the mode in which these waters should be employed, leaving such details to be determined by the peculiar features of each case.

PROVINCIAL CORRESPONDENCE.

LIVERPOOL.

April 13.

LIVERPOOL WATER-SUPPLY—CASE OF MALINGERING—RETIREMENT OF THE REGISTRAR OF THE SCHOOL OF MEDICINE—CASES OF SMALL-POX—THE MEDICAL INSTITUTION.

It is obvious that Liverpool cannot go on for many years without a more abundant water-supply than that which she at present possesses. The Bill promoted by the mayor, aldermen, and burgesses, "to enlarge the powers of the Corporation of Liverpool in relation to water-supply and fittings, and otherwise to amend the Acts relating to the Liverpool Corporation Waterworks, and other purposes," the chief provisions of which I mentioned in a previous letter, has been lost. In accordance with the provisions of the Borough Funds Act, the house-owners and ratepayers of the town were enabled to decide by a poll whether the Bill should be proceeded with or not. Their decision was adverse, so that at the present time we are in the same difficulty with regard to water as we were three months ago. How great this difficulty is may be estimated from the words of the chairman of the Water Committee. They were to the effect that we had already overtaken the dry-weather yield, and were rapidly overtaking the maximum wet-weather yield; that, in addition to the threatened deficiency from all sources, two of the wells were polluted with sewage, and that the yield from the wells was steadily decreasing, owing to the much better drainage all over the country, to the pumping, and to a great deal of the land being covered with property. Obviously, in view of these facts, if we have a dry summer our position will not be an enviable one.

A case of great interest has just been heard at the assizes. A horse-dealer named Dolan was injured in a collision which occurred on the London and North-Western Railway, near Rugby, on the 16th of last November. His injuries were described with much minuteness by his leading counsel. He was badly bruised on the head, cut near the right eye, his knee was badly cut, he experienced great difficulty in moving the thigh, and he was otherwise injured. The case seemed a bad one therefore, and no doubt heavy damages would have been awarded, as the local medical attendant testified strongly to the reality of the injuries, if it had not been for the production of letters written by the plaintiff to his wife and brother-in-law, in which he described himself as having had a fortunate escape; but as intending to try and get "something handsome out of the company," and, to that end, as being engaged in "foxing" a little. In one of the letters it was suggested that the brother-in-law should put a sketch of the accident in the paper, and in it state that there were nine injured, but that the only one seriously injured was an Irish horse-dealer, a Mr. Dolan. Part of the process of "foxing" alluded to in the letters appeared to be to purchase blood, ostensibly for the purpose of capping the hocks of an injured horse; but really in order to swallow, and then vomit it and pass it by stool, for the purpose of deceiving the medical attendant. I have alluded to the case as it may be useful for medical men to know the innocent designs by which injured horse-dealers and others would lead them off the scent.

The Royal Infirmary School of Medicine has sustained a most serious loss in the resignation, after nine years of service, of its Registrar, Mr. Reginald Harrison. When Mr. Harrison took office the school was a comparatively small one; now it is one of the largest, if not actually the largest, in the provinces, and larger than not a few of those in the metropolis; and very much of its success has been due to the energy and tact and zeal of the late Registrar. The Council of the School, at their last meeting, when the resignation was finally given, expressed their strong sense of the great value of Mr. Harrison's services. Mr. Banks, the Lecturer on Anatomy, succeeds to the post, and will, it is believed—difficult though the task will certainly be,—maintain the ground gained by his predecessor.

At the last meeting of the Health Committee, Dr. Trench, the Medical Officer of Health, drew attention to the probability of another epidemic of small-pox, and to the necessity for incessant vigilance in enforcing efficient vaccination. He mentioned that on the 17th ult. there was one case in Kirkstall-street, and that since then he had traced sixteen to the same cause, showing the receptivity of the population for the disease. The street is a respectable one, and is in close proximity to one of the largest schools.

The Medical Institution, at its last two meetings, has been engaged in hearing and discussing a very able paper by Dr. A. B. Steele, "On Maternity Hospitals: What should be Done with them?" Dr. Steele adduced very strong evidence in favour of home as against hospital delivery, and advocated a great limitation of the employment of lying-in hospitals, and their entire remodelling, so as to reduce to a minimum the risks which unhappily at present attach to them. At the request of the Society the paper will be published.

GENERAL CORRESPONDENCE.

THE VENTILATION AND TRAPPING OF SEWERS.

LETTER FROM DR. ALFRED CARPENTER.

[To the Editor of the Medical Times and Gazette.]

SIR,—Will you allow me to make a few remarks upon your leader of the 4th inst., referring to the so-called sewer-gas pneumonia and Mr. Waterfield's premises at East Sheen. I may premise that I do not know the locality, and I may be in error as to the foundation of my argument—viz., that Mr. Waterfield's premises are connected with the public sewer. If they are not, then my observations will not apply to this particular case; but if I am right in my conclusions, will you allow me to say that a far more serious evil will result to Mr. Waterfield's establishment by closing up the proposed ventilator than by leaving it open.

I would most strongly urge that any such closure must simply transfer the evil from the external air to the house itself, and that the indication is not a necessity for stopping the exit, but for promoting the ventilation of that sewer as much as possible. There is far more danger to the establishment by closing the opening; for, if the foul air could find its way through the gravel, it most certainly would find its way

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through any trap which could be placed between the sewer and the house. It is far more likely that the evil found entrance by one of these communications than from the ventilator in the public road. Mr. Waterfield's establishment is in much more danger from the closing of the ventilator than by leaving it open. If it is so noxious as represented—and I do not for a moment doubt this (even if Mr. Waterfield's premises are not connected),—what must be the effect upon those above him on the line of sewer? The fault is not in having a ventilator, but in not having sufficient of them to prevent that stagnation in the public sewer which allows of concentration of sewer-gas.

The local authority should be called upon to provide many other openings, not to close up the single one made near to Mr. Waterfield's premises. Stagnation could not then arise, and there would then be no opportunity for the growth of those germs, or atoms, or the production of those states which tend to the development of typhoid pneumonia or any other typhoid disease.

Still more urgently the local authority should be compelled to alter the present sewer: it is now an elongated cesspool only, a sewer of deposit, and free ventilation will prevent the development of typhoid, but will not prevent it from being a nuisance to the neighbourhood. A sewer that is properly laid and properly ventilated will never give out a foul smell, and will never want charcoal ventilators to protect the public.

The danger which may arise from the mistaken notion that a smell from a sewer is a reason for trapping, is my excuse for troubling you on this occasion. I would say, as I have often said before—ventilate, don't trap.

I am, &c., ALFRED CARPENTER, M.D.

REPLY TO "A QUERY FOR SURGEONS."

LETTER FROM MR. CROSBY LEONARD.

[To the Editor of the Medical Times and Gazette.]

SIR,—In reply to a letter in your last number, headed "A Query for Surgeons," there can be no objection to applying a ligature to the femoral artery. There is ample time for the patient's recovery before her confinement.

I am, &c., CROSBY LEONARD,
Senior Surgeon, Bristol Royal Infirmary.

Clifton, April 19.

REPORTS OF SOCIETIES.

EPIDEMIOLOGICAL SOCIETY.

WEDNESDAY, MARCH 11.

Dr. GAVIN MILROY, F.R.C.P., Vice-President, in the Chair.

INSPECTOR-GENERAL LAWSON read his paper "On Errors in the Usual Method of Investigating Epidemics." The different headings under which the subject was treated are—1. That as in physical, so in epidemiological investigations, we must adhere to the inductive method; but there is this difference: that while in the former the various factors concerned can either be isolated or their properties determined by experiment independently of the particular question under examination, in the latter we only infer the existence of the cause from the appearance of the disease in question. 2. That in epidemiological investigations, what has been called negative evidence is of equal importance in guiding us to the correct conclusion as that which has been designated affirmative, because we may here overlook some factors essential to the result, which can only be detected by comparing closely the antecedent in the negative instance with those in the affirmative. 3. It is necessary to embrace the action of what have been called "epidemic causes" among the influential factors in the spread of epidemics. This is illustrated by the late outbreak of small-pox. 4. It is often necessary to exclude the operation of local causes to permit of a correct conclusion being arrived at where there may be a question of importation. This is illustrated by the yellow fever in H.M.S. *Bristol* at Sierra Leone in 1866. 5. It is necessary to decide the light in which cases of sporadic malignant cholera are to be regarded where there has been no trace of importation, before any certainty can be attained as to the various local and personal causes assigned for that disease when in the epidemic form. Investigation as to the causation of disease involves fewer constants and a greater number of variables than similar operations in physical science; hence a stricter adherence to the inductive method is necessary. Probabilities and possibilities without the basis of certainty should not be set forth as well-established truths. Positive evidence is claimed when an observer finds a combination of antecedents precede a disease in the manner required by his hypothesis; but should this combination not be followed by the disease in some instance, he calls this negative evidence, and deems it of little value in comparison with the affirmative instance; but the hypothesis may have omitted some essential factor and have included some non-essential, and what these are may be elicited by comparing the antecedents in both the positive and negative instances. The one is not the less important than the other, and cannot be neglected if scientific accuracy is to be attained. For the spread of small-pox some general epidemic cause beyond the introduction of the virus is indicated by the facts of the late epidemic. The periodic recurrence of epidemics of small-pox points to some factor of occasional operation, and extensive enough to embrace France, Germany, Holland, England, and Scotland at the same time, as did this epidemic at the end of 1870. Philadelphia and New York suffered from it in 1871. It may be objected to such an "epidemic cause" that every place within its sphere of operation should manifest its influence; but we are not justified in attempting to fix the limits or mode of the operations of Nature by *à priori* reasoning, but must try to arrive at a just conception of these from the phenomena she presents. In England during this epidemic many places showed an entire immunity from small-pox, though the "epidemic constitution" must have embraced the whole. This feature is observed in every epidemic and in every country, and must therefore be accepted as the true mode of operation of the epidemic constitution. In inquiring into the causation of certain diseases, it becomes necessary to determine whether they were introduced from elsewhere, or arose from the action of causes at the place where they appeared. This, of course, is to be effected by eliminating the influence of the local causes; but few, perhaps, have considered how to insure its exclusion. If, previous to the occurrence of cases in a locality, others had been introduced from elsewhere, it would be impossible to separate the local influence from the personal; but if, after the introduction of cases of fever, no others arise among those fixed to the locality, we can exclude the action of local causes and deal with the personal by themselves. These positions are illustrated by the following outbreak:—In 1865 yellow fever occurred at Sierra Leone, and the *Isis*, receiving-ship, which had been there some years, had several cases on board, of which the last two were attacked on December 16 and 18, both dying on the 21st. A few days after, H.M.S. *Bristol*, with a crew of 535, arrived from England, anchoring five miles from shore. To remove the *Isis* to a more healthy position, four officers and 112 men were sent from the *Bristol* on December 28. They returned to their ship at night, but were employed on the *Isis* again on the 23th. Fever commenced among the men of this party on December 31, and up to January 6 thirty-seven were attacked. Of these, twenty-one died on board from January 3 to 10, and two subsequently at Ascension. Two officers and one man, not of the working party, who had visited the *Isis*, were also attacked; but no one who had not been on board the *Isis* suffered. Five medical officers and twenty-four men employed as nurses were in constant and close communication with the sick, and fully exposed to whatever chances of contracting the disease that might involve. Here, in the absence of local causes, the disease could not be communicated from the sick to the healthy. Where these causes can be eliminated the teaching is uniformly to the same effect. It is from cases where this separation is impossible that the advocates of the contagiousness of yellow fever bring their proof, which, from the evidence above given, must manifestly be inconclusive.

The PRESIDENT, in commenting on the importance of the questions raised, remarked that recently our distinguished member from India, Dr. Cuningham, after all the evidence of English writers as to the spread of cholera by means of the excremental pollution of water, brings forward negative evidence, and says we have no sufficient ground for maintaining this view.

Dr. BUCHANAN said a negative instance was of great value, absence of personal knowledge of none. "Negative evidence" meant evidence to the contrary, and was not to be confounded with absence of all evidence. We could very well dispense with the words "positive" and "negative" altogether, as applied

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to evidence. We used these terms to express not two opposite things, but one single thing—namely, the amount of belief that was or ought to be commanded by the subject. Set aside these terms, and, in place of thinking of opposites, let us realise the idea of simply *more* or *less* in our reasons for belief; the way would then be clear for a further use of figures than was yet at all customary in medical researches: even the amount of evidence bearing upon a given belief might be expressed numerically. What was called positive evidence was to be expressed by a plus sign, and negative evidence by a minus sign. Positive evidence meant only a higher degree of probability, from even chances ($\frac{1}{2}$) to affirmation (1). Negative evidence meant only a lower degree of probability, from even chances ($\frac{1}{2}$) to denial (0). He was in hopes that evidences as to causation, more particularly, might hereafter come to be dealt with by taking a particular phenomenon and investigating the chances of its occurrence under common conditions, and then comparing those chances with the observed occurrence under differentiated conditions. Before conceding the existence of what is called "epidemic constitution" as affecting the prevalence of disease in a community, allowance ought to be made for a number of better understood conditions. When measles, introduced into a remote island, attacks every inhabitant under the age of thirty, nobody would talk of this "epidemic constitution" after they had heard the story that thirty years before there had been a similar introduction with similar results, and since then there had been no importation of measles; and similarly with regard to the epidemics of small-pox now adduced in favour of this "constitution," too little account appeared to him to have been taken of the accumulation of susceptible individuals in the intervals of epidemics. He would direct attention to this consideration as furnishing ample reason why infectious diseases should, after a period of quiescence, attack an increasing number of persons until epidemic proportions were attained. Fewer persons would be susceptible immediately after a general outbreak of the infectious disease; more persons would, for various reasons, be susceptible a few years later; new people would have been born, new people imported, old personal immunities have been worn out; and in the case of small-pox a new accumulation of unvaccinated persons have grown up. There was more difficulty in understanding why an epidemic should ever cease until it had attacked every member of a community; but even this seemed capable of at least a partial explanation, if we took into account the reduction which the disease itself was continually effecting in the numbers of the susceptible, and the fact that there must be some individuals living continuously in surroundings which are able to resist the invasion of infection. The supposed "epidemic constitution" could only arise for consideration after the influence of well-known circumstances, like those already indicated, had been measured and allowed for.

Mr. J. Netten Radcliffe differed widely from Mr. Lawson in the view he took of induction as applied to epidemiology, who seemed to be looking for some higher form of induction than the induction of probability, which had so much advanced all the natural sciences. Inference and probability were of the very essence of inductive reasoning; theory and hypothesis necessary parts and instruments of research. The evidence against certain commonly received conclusions as to cholera was not of such precision as to counterbalance the careful deductions based on the positive evidence before us. Mr. Lawson's proposition as to the relationship of sporadic to epidemic cholera begged the whole question; it was not necessary to suspend our researches into the conditions of their development until pathology should have determined their precise relationship.

Inspector-General Lawson, in reply, said, as some of the remarks made had no direct bearing on the points he had submitted, he would confine his observations to those which had. The Sierra Leone fever, though not contagious on board the *Bristol*, was proved to be true yellow fever by the kidney affection present in every case, and by its rapid course. As to the diffusion of small-pox in this country in 1871 depending on an increased susceptibility supplemented by fresh importations from Paris before the siege, this fails to account for the prevalence of the disease in the South of France early in 1870, for its extensive spread and nearly simultaneous increase, while the hæmorrhagic form of it was as widely diffused. To explain all this one or more factors of equally extended operation are required—in short, what has been called the epidemic cause or constitution. Mr. Radcliffe thinks the precision as to facts and reasoning advocated in this paper unattainable in the study of epidemics, and instead is inclined to fall back on the probability of certain sequences being connected as cause and effect, as obtained by submitting the data to the calculus of probabilities; but mathematics cannot be applied to this purpose until some hypothesis has been formed as to the peculiar relation to be investigated, and if the hypothesis be erroneous the result will be equally so, and will only lead to further error. Mr. Radcliffe thinks malignant cases of cholera met with during an epidemic should be regarded as cases occurring under one set of circumstances, and those which appear sporadically and without any trace of importation as cases occurring under other circumstances, and that we should be content to examine them in these respects only. This, however, is inadmissible if the question is to be prosecuted in a scientific spirit, as all facts of the same nature, however they may vary in their accessory circumstances, must be included in the induction.

SOCIETY OF MEDICAL OFFICERS OF HEALTH.

Saturday, March 21.

Dr. Hardwicke, Vice-President, in the Chair.

The Secretary (Dr. Vinen) informed the Society that a committee of members appointed at the last meeting of the Society to discuss the desirability of fixing a standard for pure milk had resolved that it was not at present desirable to fix such a standard.

Dr. Liddle, referring to a recent meeting of provincial medical officers of health at King's College, expressed regret that the editor of a journal whose circulation was chiefly confined to members of the British Medical Association should have cast reflections upon the work done by this Society in order to justify a meeting of health officers in apparent opposition to the Society. After some discussion it was explained that the meeting in question was convened for a special and peculiar purpose—viz., for obtaining united action among the provincial health officers, with a view to the repeal or alteration of certain existing by-laws.

Dr. Vinen stated that the Society had anticipated this want, and he had been for some time past endeavouring to obtain answers from the provincial health officers with a view to obtain concerted action on some points relating to a proposed reform of the by-laws affecting sanitary officers. Four hundred health officers had already sent in replies. As soon as the remainder had been sent in, Dr. Vinen promised to report the result to the Society.

One of the members present explained that the meeting at King's College had a definite purpose, and, as far as he knew, it was not proposed to get up a rival society.

Drs. Child and Talbot were unanimously elected members of the Society.

A letter was read from Dr. Lankester, enclosing copies of his recent pamphlet for distribution among the members of the Society.

Dr. Dudfield then commenced the reading of his paper on the "London Slaughter-houses," a summary of which is here subjoined:—The subject, he said, was of great sanitary importance, and must, in all probability, be settled in some way during the present year, the term being near its end that was fixed by Michael Angelo Taylor's Act, 1844, for the suppression of all trades scheduled as noxious within a limited area of roads and dwellings. A brief retrospect of the course of legislation with reference to slaughter-houses was given; and in illustration of the general ignorance of the provisions of the Act of 1844, it was stated that hundreds of such establishments have come into existence during the last thirty years, in direct contravention of the Building Act, being within the prescribed limits in which no new business of a noxious character was to be allowed; and speaking particularly of such of these as had their origin during the last eighteen years—the lifetime, thus far, of the Local Management Act,—there could be no doubt they ought never to have been licensed at all. The Bill to repeal the abolishing clause, brought into Parliament in the last session by Dr. Brewer, was withdrawn upon a reference of the entire subject to a Select Committee of the House of Commons. The evidence given before that Committee was emphatic and, apparently, decisive on both sides alike.

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behalf of the butchers it was contended that the improvements effected under the licensing system had rendered slaughter-houses innocuous, while the powers of inspection and opposition to the renewal of licences conferred upon local authorities were sufficient to insure all sanitary requirements being duly carried out. The results of personal observation led Dr. Dudfield to question the accuracy of this view, and the ground he took was in harmony with that portion especially of the Committee's report which stated the desirability of constant inspection, and of precise, stringent, and uniform regulations, with the ulterior object of using that inspection and those regulations for the detection of contagious diseases in animals and preventing the sale of unsound meat. The principal recommendation of the Committee was, however, opposed to the belief of the Society of Health Officers. The Committee made the general wholesomeness of private slaughter-houses the ground of their future continuance; while the Society had expressed a decided opinion for their abolition by reason of their unwholesomeness. The Select Committee were influenced, no doubt, by the evidence of members after visiting certain premises. Those visits were paid while inquiry was in progress, and on days when no slaughtering was going on. At such a time every precaution would be taken to avoid gratuitous offence; and this amateur inspection took cognizance chiefly of matters that were upon the surface, such as clean walls and floors, in respect of which many premises were scrupulously well kept. There were two conditions precedent, however, which were of great importance—namely, position and construction. An improper site or defective construction must render premises "faulty and, indeed, objectionable." A slaughter-house should be a detached building, with a fair surrounding air-space; not near accumulations of foul-smelling refuse, and sufficiently distant from other buildings to preclude offensiveness. It should be airy, well-lighted, and open to the roof, the walls being formed of impervious materials, so as to admit of thorough cleaning with soap and water; and the flooring also should be impervious, and slope to the drain, which should be incapable of disturbance by rats or foul air, or for the purpose of passing blood and filth into the sewer; a catch-pit for blood should be provided, and an abundant high-pressure water-supply be always available. So far are the existing slaughter-houses from fulfilling these conditions that their use may be described as usually an accident—a shed, a washhouse, a stable, or mews, being converted wholly or partially to the purposes of slaughtering. Amongst facts ascertained by actual inspection, Dr. Dudfield stated that many of the slaughter-houses could be approached only through the dwelling-house or shop; horses were sometimes stabled in them, and in other instances there was direct connexion with the stabling; frequently the layerage was contained within the slaughter-house; some of the premises had dwelling-rooms in actual occupation above them; in two-fifths of the total number visited the drainage was found to be out of order at the very time when, as a preliminary to the annual licensing, inspection must have been looked for; and in several cases light was obtained by opening the doors, so that the business was carried on in public. All these conditions were quite consistent with an appearance of cleanliness, such as would impress favourably an inexperienced observer, and yet it would have been unreasonable to require their amendment at the cost of a considerable outlay for the improvement of premises so soon to be closed by the operation of law. The particular recommendations of the Select Committee, as to the future regulation of the trade, would, if the butchers readily acceded to them, lead to a large reduction in the number of private slaughter-houses. The primary defect of the present system was the want of penalties for neglect of constant recurrence. The alternative system of public abattoirs had worked so well wherever introduced, that it could hardly fail of success in the metropolis. It was not desired nor desirable to establish one vast abattoir, but a sufficient number of such places of moderate size to meet the necessities of the trade and of the community, while enabling the slaughter of diseased animals and the traffic in unsound meat to be effectually proscribed. Such a number of private slaughter-houses as 1700 was absurdly in excess of every legitimate requirement. It was to be observed here, that only in connexion with public establishments could constant and effectual inspection be carried out, good sanitary conditions insured, and cruelty and the sale of bad meat be prevented. Under the present system, and having regard to the multifarious duties and limited strength of the sanitary staff of any district, the inspection of slaughter-houses was and must be nominal, and it could have little further effect than to keep them moderately clean. By the introduction of abattoirs, the butchers would, in the long run, be the greatest gainers, and meat be rather cheapened than enhanced in price, judging from the experience gained elsewhere. Support might be anticipated for such a measure from the 162 wholesale dealers who bought live stock and had them killed at public slaughter-houses, as well as from the butchers (1063 in number) who carried on their trade without themselves slaughtering animals. No great difficulty, then, was foreseen in carrying out this beneficial reform, should Parliament resolve to do that which it was advised to do by all persons of sanitary experience, and which its predecessor of thirty years ago deemed not unreasonable, though its shibboleth was not *sanitas sanitatum*.

Dr. Burge opened the discussion by reminding the Society that when the subject of slaughter-houses was under discussion last year, a resolution opposed to the continuance of slaughter-houses was laid before the Society, which, as chairman of the meeting, he was obliged to put to the Society, although it was entirely opposed to his own views. Dr. Burge was of opinion that since the Nuisances Removal Act of 1833 all the defects of slaughter-houses had abated. The enactment of the first Markets Act was the first blow given to the badly managed slaughter-houses. The licensing system has caused a great modification and improvement in the routine business carried on in the slaughter-houses of the metropolis. No one acquainted with the work done at the private slaughter-houses can find any real cause for complaint, unless it be that from the neglect of the officer of health or the inspector of nuisances the regulations imposed have not been enforced. Dr. Burge was quite convinced that the tendency of recent legislation was to continue to license existing slaughter-houses, as there appeared to be more diseased animals slaughtered at the public than at the private abattoirs. If the Society had limited their adverse opinion to the City of London, instead of condemning the system *in toto*, Parliament would probably have complied with their request.

Dr. Buchanan stated that he was surprised to find that the butchers made use of the argument that the trade did not know of the existence of Taylor's Act; but he believed the subject had been so much talked about at vestry meetings and in Parliament that very few butchers could be unaware of it.

Dr. Tidy was surprised to find that the only argument in favour of perpetuating existing slaughter-houses was the question of price—viz., that the poor would have to pay more than at present for their meat. As a matter of fact, in Edinburgh, Cologne, Berlin, etc., where public abattoirs have been established, meat is much cheaper than formerly. In order to have private slaughter-houses properly inspected, it would be necessary to appoint an inspector for each. For instance, at Islington (his own district) 110 inspectors would be required, as the animals or the meat are going in and out at all times of the day. Other objections are the drainage and water supply, both of which are, as a rule, most defective.

Dr. Iliff spoke in favour of repealing the Acts, as he had found them a nuisance. He had scarcely had any complaints of bad drainage, and few of illness caused by neighbouring slaughter-houses. For some years Dr. Iliff had refused the licence to slaughter-houses situated within forty feet of a dwelling-house.

Dr. Sutton, of Shoreditch, informed the Society that the Shoreditch Vestry had decided not to renew the licences of a large number of their slaughter-houses. Many others required considerable alteration to make them fit for use. The district was densely populated, and the atmosphere, therefore, very much tainted, so that the continuance of slaughter-houses was not desirable; but the same argument would not hold good for other districts. Dr. Sutton was in favour of a compromise.

Dr. Stevenson considered it impossible to inspect existing slaughter-houses. He had never known the sanitary inspector of his district detect diseased meat. He had only time to make a routine visit once a month. Dr. Stevenson had repeatedly found untrapped drains, and the blood allowed to enter the drain. The power of the medical officer is very limited; he can only proceed under the Nuisances Removal Act, and then the butchers will take care to have all cleaned up before the case comes into court. It is only in very hot weather that the better class of butchers slaughter their own meat.

Dr. Liddle found that the only real objection advanced by the Metropolitan Board of Works was to the driving of cattle

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through the streets. He regretted that Dr. Burge should cast reproach upon the labours of the medical officers of health. Dr. Liddle concluded by proposing a resolution to the effect that slaughter-houses should be abolished, and that a certain number of public abattoirs be established in different parts of the metropolis.

Dr. Burge proposed an amendment to the effect that the Act be repealed, and that private slaughter-houses be more rigidly inspected.

The resolution was carried by a large majority.

Dr. Dudfield, replying to the criticisms of Drs. Iliff and Burge, warmly censured those gentlemen for their support of a system which had been proved to be a great and widespread nuisance. He was surprised to find that Dr. Burge, of Hammersmith, did not admit a single objection to slaughter-houses, and yet the butchers and all the corporations find much that is objectionable in the existing slaughter-houses. He was reminded of an observation which fell from a vestryman of Kensington, to the effect that "Hammersmith objects to nothing." The facts of the case are these: that the butcher does not kill half he sells, and half the slaughter-houses are not used.

OBSTETRICAL SOCIETY OF LONDON.

Wednesday, April 1.

E. J. Tilt, M.D., President, in the Chair.

The following gentlemen were elected Fellows of the Society: —A. M. Adam, M.D. (Boston); Oliver Barber, M.R.C.S. (Sheffield); G. Boddaert, M.D. (Ghent); C. M. Crombie, M.B. (Aberdeen); Robert M. Fraser, L.R.C.P. Edin. (Darlington); John T. Jones, M.R.C.S. (Llanfyllin); H. H. Dendy Lewis, M.R.C.S. (London); J. H. McCallum, M.B. (Toronto); Gustav Surion, M.D. (Heidelberg); Alex. D. Sinclair, M.D. (Boston, U.S.); and Stephen Skinner, M.B. (Clevedon).

Dr. Edis exhibited for Dr. Geo. F. B. Willing, of Great Wakering, a Fœtus presumed to be only five months and ten days—dating from the last catamenial period. Premature labour resulted from a fall a week previously. "Immediately the child was born it cried so loudly that it was heard distinctly downstairs, and continued at intervals to cry as loudly as a full-grown infant. It was fed by a spoon with gruel, which it took without any trouble, but it could never be got warm, indeed it was almost stone-cold. It passed meconium, but no urine. The eyelids were perfectly closed. Its weight was just a pound and a quarter, and length eleven inches. It lived just forty-four hours." Dr. Willing stated that in all his practice, extending over twenty-five years, although he had attended between 2000 and3000 cases, he had never met with a similar instance.

Dr. Barnes alluded to his previous researches, where, on examining the lungs, although the children had cried, the lungs sank in water, the air-cells were not properly developed, and the children were not viable. A child may have potential life, but must breathe to be alive.

Dr. Heywood Smith referred to a case similar to the one narrated, occurring in a patient at Soho, where premature labour had been induced on account of cancer of the uterus.

Dr. Wynn Williams related an instance occurring in his practice, where an infant of about five months' gestation had cried after birth, and then died shortly afterwards, in which case he had given a certificate of stillbirth, regarding it as non-viable.

Dr. Savage doubted if a child could cry without breathing.

Dr. Playfair thought there must be air to produce a cry. He alluded to the case of Mungo Park, the celebrated traveller, who had craniotomy performed on him at the time of his birth, but yet lived for many years.

Dr. Cooper Rose remarked that a simple effort at respiration resulting in a sound resembling a cry could hardly be accepted as evidence of a living child; and he instanced a case of craniotomy occurring in his presence, where the brain was utterly destroyed, and yet an effort to cry was made after birth, in consequence of the medulla oblongata not having been disorganised. In such a case no one would certify to the birth of a living infant.

Dr. Routh said that the specimen was one of interest chiefly as bearing on the question of viability, but he could not doubt that if a child had cried lustily, it must have lived, and he would not agree with Dr. Williams that it should be returned as stillborn to save the expense of a funeral. It might not be viable, but it was alive, and by English law that was sufficient to prove right of inheritance. Indeed, he believed there was a case in law in which a child moved distinctly after birth, yet showed no other signs of life, and yet was adjudged alive, and the father became consequently seised, by right of inheritance, of considerable property. The Society might remember a case he had brought forward, of a child only three and a half months advanced, which had lived eighteen days, and then died of atrophy. It appeared to him (Dr. Routh), although, as in this case, viability was impossible if a child only lived a minute, it could not be returned as stillborn; it was only a question of degree after all. It would be interesting if a committee could report on this case, and ascertain the condition of the lungs as alluded to by Dr. Barnes, as well as the exact age of the child.

The President suggested that Drs. Routh and Savage should examine and report upon it.

Mr. Stewart exhibited a Night Dress, designed, at Dr. Barnes's suggestion, for ladies during their lying-in, where frequent changes are necessary without raising the patient. It was entirely open at the back and closed in the front, excepting apertures at each breast. The patient being on her back, both sleeves are drawn on the sides, being then tucked under without moving her, except on either side to allow of the dress being buttoned behind. Messrs. Burden and Kerr, of 51, Conduit-street, were the makers.

Mr. Stewart also showed a Legging for Varicose Veins, substituting a rigid material for the elastic; it was cool and washable, and exerted uniform pressure.

Mr. Thomas Liddard exhibited an Inhaler for Chloroform alone, or in combination with alcohol or ether. It is cylindrical in shape, and divided into two chambers by means of a revolving band which opens or closes the holes admitting air to the chambers. The proportion of chloroform inspired by the patient can be estimated and regulated. In midwifery, by first setting it to the required strength, it can be safely entrusted to a nurse.

Dr. Wiltshire showed some Protected Perforators which he had devised. They are modifications of Oldham's and Simpson's perforators, each being furnished with a guard or sheath completely covering the point and blade of the instrument. So protected it could be introduced into and withdrawn from the vagina without the slightest risk of injury to the maternal parts, the guard being withdrawn only when the fœtal head was reached, and, after perforation, being restored before withdrawal, so as completely to obviate the possibility of injury to the mother. The instruments were quite powerful enough, though considerably lighter than the unprotected perforators now in use; and they could readily be cleaned, the guard being movable.

Dr. Heywood Smith spoke of the advantage of the point being curved.

The adjourned discussion on Dr. Playfair's paper on Puerperal Thrombosis then took place. A short abstract was read, briefly referring to the principal points of interest. The term thrombosis was applied to blood-coagula formed at the point where they were found, embolism to travelled blood clots impacted in a distant vessel. Every case of embolism, therefore, necessarily implied an antecedent thrombosis. Phlegmasia dolens he regarded as only one of the local manifestations of puerperal thrombosis. As regards the pathology, he held that, although there was obviously something beyond mere obstruction of the vessels requisite to account for the peculiar form of swelling, yet that that was the principal and primary morbid state. He then alluded to the conditions favouring the coagulation of the blood in general, showing that these were all present to a remarkable degree in the puerperal state. He believed in the spontaneous origin of pulmonary thrombosis; in these cases death generally ensued before the fourteenth day, whereas in true embolism death occurred at a remote period after delivery. The history and symptoms were then considered, as also the possibility of pulmonary obstruction occurring without proving fatal, several illustrative cases being given. The existence of a blowing murmur over the site of the pulmonary artery was insisted on. The mode of death was next considered—Virchow attributing it to syncope; Panum to cerebral anæmia; Paget to an altogether peculiar condition, in some respects resembling anæmia, in others syncope; and Dr. Playfair endeavouring to support Berlini's views, that it was referable to apnœa. The post-mortem appearances and treatment were also given

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The PRESIDENT referred briefly to previous speakers' remarks, and cited the clinical history of a case given in Dr. Fordyce Barker's work on puerperal diseases.

Dr. SAVAGE said he had been an attentive listener to Dr. Playfair's paper, but had failed to discover anything in it which had not been already discussed and recorded. He should regret having moved for the adjournment if the discussion must be limited to puerperal phenomena. The subject was a wide one, and could not with profit be partially entertained. Thrombosis, embolism, and Virchow were of course inseparable; but in the present communication he (Dr. Savage) thought the germ of Virchow's doctrine was altogether omitted. Emboli, Virchow says, except under special circumstances do not come from the primary thrombus, because it entirely stops the blood-stream; but should it project, as it often does, into a larger vein of which it is a branch, the blood-stream through the latter rapidly deposits upon it a succession of thrombus layers. From this secondary thrombus the emboli particles are derived. They are, in fact, carried on by the blood-stream to the right heart, and so on to the pulmonary artery and its primary branches, with the usual (now well known) consequences. Dr. Playfair, however, is in antagonism with Virchow. He has, after much research, traced out twenty-five cases of pulmonary embolism, ten of which were not peripheral; but he omits all mention of the multitude of Virchow's cases proving the prevalence of this source of the disorder. In the year 1855-56, Virchow, owing to a puerperal epidemic, which lasted quite a year and a half, had under his immediate notice a multitude of fatal cases; in every one of those attended by pulmonary embolic complications he found pelvic venous thrombus more or less. Moreover, the character of the embolic particles in the pulmonary artery always corresponded exactly with that of the pelvic thrombus. By way of crucial test, particles of brain and other substances were introduced into the jugular veins. The same substances composed the emboli subsequently found in the pulmonary arteries. A secondary thrombus as large as the thumb may be derived, says Virchow, from a primary thrombus in a vein no larger than a knitting-needle. Dr. Playfair's ten exceptions may, after all, have been peripheral, with the primary thrombus overlooked. In a recent railway accident, the subject of the injury died rather suddenly forty-eight hours afterwards; a piece of crushed liver was found blocking up the pulmonary artery. And equally it was possible that the secondary thrombus might get loose and pass bodily up the vena cava. The peripheral production of pulmonic emboli need not be a slow process, as stated in the paper. An idea that it must be slow seems at the root of Dr. Playfair's chief difficulties, assuming that his cases were really thrombic—a conclusion by no means well warranted, and not at all in accordance with the necessary import of dyspnœa in the eyes of the experienced practitioner; but Virchow does not assert that pulmonary embolism must have a peripheral origin. Any of the few minor cardiac veins opening into the right auricle may be the seat of the primary thrombus, and give rise to a large secondary thrombus within the auricle. Nor does the doctrine exclude primary heart-thromboses, such as have been recognised from the time of Dioscorides, and for the last half-century distinguished in text-books as post-mortem, in articulo, and ante-mortem thrombi, the latter agreeing with the false polypi of Laennec.

Dr. PLAYFAIR considers phlegmasia dolens as "correlated"—that is, it comes under the thrombic class of affections. This was precisely the view of it taken by Davis in 1822, and more emphatically established by Robert Lee some years after; that pathology of it has stood its ground ever since. Dr. Playfair has omitted septic and non-septic uterine venous thromboses from the "correlation." In a paper of this length some notice might be expected to be taken as to the rarity of pulmonic complication with phlegmasia dolens, the frequency of it in the worst forms of septic uterine thrombus, and the liability to ordinary pulmonic embolism in non-septic uterine thrombus. Another point not yet entirely cleared up is the invariable congestion of the pulmonary arteries and capillaries on the distal side of the embolic plug or plugs. Is Dr. Playfair satisfied with Ludwig's explanation?

Dr. MADGE observed that although he had attended 3000 cases he had never met with a case of thrombosis. He thought the analogy between phlegmasia dolens and thrombus rather a forced one.

Dr. RICHARDSON, who had been invited by the President to take part in the discussion, commenced by expressing his thanks for the friendly and able manner in which Dr. Routh had mentioned him and his early labours at the previous meeting. He then proceeded to vindicate the English school of medicine for the advancements it has made in the knowledge of this subject of separation of fibrine in the body during life. The study was as essentially English as was the discovery of the circulation of the blood, of which, indeed, this was but a corollary. This position was briefly but forcibly maintained by reference to the different authors who, commencing with William Gould in 1684, had continued up to the present day. Referring to his own observations, which were first brought before the Medical Society of London in the session of 1850-51, and which had been followed up to the present time, Dr. Richardson described from his experience the conditions that lead to separation of fibrine within the circulatory channels during life, especially the two conditions of cachectic and acute pyrexia. The physical qualities of the fibrinous separation varied, in respect to the amount of water, from 3 to 30 per cent. The cause of the separation of the fibrine was noticed as a disturbance in the relations which naturally subsist between the fibrine and the water of the blood—a disturbance that may be excited by increase of water and by increment of heat in the blood. Whatever leads to these two conditions favours the process of separation; and when, in addition, there is obstruction to the due course of the blood, so that there is friction of blood at some particular point, the separation is all but inevitable. The action of an organic or septic poison may induce conditions that lead to separation, but the same conditions (as Dr. Richardson had shown experimentally in 1854) may be induced by other causes, and with the same secondary result—viz., the separation of fibrine. From the author's experience of cases of this in the human subject, he estimated that the separation occurred on the venous side of the circulation in not less than six cases to one in the arterial. After describing the different forms of separated fibrine found in the venous system, in the heart, and in the pulmonary artery—viz., the solid, the spiral, and the hollow cylinder; the layer or false lining; the irregular mass, loose, or moulded to the part from which it was taken,—Dr. Richardson maintained still the view he has held all through the course of his labour: that, as a rule, the separation takes place on the venous side at the spot where it is found. In the numerous inspections he had made of fibrine separated in the pulmonary artery after death by surgical fever, pneumonia, the puerperal state, and various other forms of death, he had not in a single instance been able to come to the conclusion that the fibrinous mass had been carried from a distant part of the venous circuit; on the contrary, he had always discovered the clearest evidence of formation *in situ*. He had found in some instances separations in other parts of the venous circuit. He had seen such a case within the last few weeks; but these separations were coincidental. They, too, were formed at the places where they were found, and they indicated only a general condition of blood favourable to separation. On the question of diagnosis of separations of fibrine in the pulmonary artery and in the venous circuit, Dr. Richardson entered into careful detail. He first defined a class of cases in which the symptoms of separation were simulated, and afterwards the symptoms, general and physical, that lead to an absolute diagnosis. The mode in which cases terminate when the obstructing fibrine is on the right side of the heart and in the pulmonary artery is varied. Unfortunately, it is almost always at once fatal; but he had records of other modes of termination—one in which the obstruction produced œdema of the lower extremities and a lingering death; others in which the separated substance was retained in the heart for a long period of time, killing at last suddenly by obstruction to the course of the blood. Lastly, in three cases he had seen what he believed was actual recovery by the resolution of the separated fibrine. In concluding his observations, Dr. Richardson dwelt on the subject of treatment. Opium, excess of wine or brandy, and movement of the body he held to be injurious and even dangerous methods of treatment. The plan he pursued was to maintain perfect rest of the body in the recumbent position, to reduce the temperature by iced drinks, and to sustain by milk and soda-water. Medicinally, he administers ammonia in iced water until it suspends the coagulability of the blood, and he keeps this action up by large and frequently repeated doses. From fifteen to twenty minims of the strong solution of ammonia (or, better still, the strong alcoholic solution of ammonia) may thus be administered in the course of every two hours in divided quantities, and the effect may be sustained until the blood corpuscles begin to show signs of solution. The details of two severe cases thus

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successfully treated were related, and those of a third case, in which, although death took place from secondary lesion, the effect of the alkali in resolving the fibrine was well marked. It was not assumed by the author that under this treatment a majority of affected persons would recover, but the practice was simple and sound, and in every clear case, if commenced early enough and persisted in firmly, would at least save some from what is otherwise inevitable death. For this reason he pressed it earnestly on the attention of the Society.

Dr. PLAYFAIR said that any reply to the observations that had been made seemed unnecessary. Dr. Savage had found fault with his paper as treating of a subject which he seemed to think was exhausted. So far was this from being the case that there was not a single English text-book on midwifery in which it was even alluded to—not even in the recent and admirable work of Dr. Leishman, published only a few months ago. Indeed, the present paper was the first attempt to collect together the information which existed in regard to thrombosis and embolism in reference to the puerperal state. It should be remembered that Virchow's writings referred to the subject in general, not to its obstetric relations; and when the paper was written Dr. Fordyce Barker's work had not appeared. He (Dr. Playfair) contested Virchow's view as to the invariable embolic origin of pulmonary and cardiac clots, and to this Dr. Savage took exception. He was gratified to find, however, that he had Dr. Richardson's high authority in support of his view. There was little in Dr. Richardson's remarks that called for comment; they contained nothing in opposition to what was stated in his paper. Dr. Richardson objected to the use of the words thrombosis and embolism as barbarous, but he proposed no substitute for them, and as some distinctive appellation was necessary, they might safely be used until some better names were invented; they at any rate had the advantage of distinguishing the two classes of cases. With regard to the ammonia in the blood maintaining the fibrine in solution, Dr. Richardson's remarks showed that he had abandoned the theory. The administration of ammonia, on the hypothesis that it would aid the solution of the fibrine already deposited, was an entirely different thing, and on that ground the remedy might be well worthy of trial in future cases.

MEDICAL NEWS.

UNIVERSITY OF ABERDEEN.—At the late Medical Graduation Term, the following candidates, after the usual examinations, received Degrees in Medicine and Surgery:—

The Degree of M.D.—Edwin Lawson Koch, L.M.S. (Calcutta), Colombo, Ceylon; Edward Norton, L.R.C.P. Lond., M.R.C.S., London. At the same time, George Edward D'Arcy Adams, M.B., C.M., Nailsea, Bristol; William Campbell, M.B., C.M., Kinellar; Frederick William Elliott, M.B., Lower Norwood, Surrey; William Andrew Durnford Fasken, M.B.; Robert John Garden, M.B., C.M., Aberdeen; Clement Godson, M.B., C.M., London; Hugh Johnstone, M.B., C.M., Burmah; George William Jotham, M.B., C.M., Kidderminster; Alfred Edward Aust Lawrence, M.B., C.M., Clifton, Bristol; James Ashburner Lightbourne, M.B., C.M., Preston; Duncan John Mackenzie, M.D., C.M., Mopley, Manchester; Lewis Walter Marshall, M.B., C.M., General Hospital, Nottingham; Thomas Milne, M.B., C.M., Ellon; John Frederick Wilkin, M.B., C.M., Folkestone; Francis James Wright, M.B., C.M., County Asylum, Prestwick; James Davidson Wyness, M.B., C.M., Aberdeen, received promotion to the degree of M.D.

The Degree of M.B.—John Alexander, Aberchirder, Banff; James Allardyce, Gartly, Aberdeenshire; James Henry Cartwright, London; Walter Charles Grosett Collins, Chew Magna, Bristol; William Raymond Cossham, Clevedon, Somerset; John Smith Craig, Duncanston, Leslie; Alexander Craigmile, M.A., Aberdeen; Sorabshaw Hormasji Dantra, Bombay; James M'Call Fehrsen, South Africa; Robert Aikman Gray, Aberdeen; Francis Hay, M.A., Peterhead; Lucius Holland, Wylam-on-Tyne; Herbert James Ilott, Bromley, Kent; Arthur Culver James, London; James Laing, Grange, Peterhead; Patrick James Lawrance, Old Deer, Aberdeenshire; Donald John Macdonald, Madras; John M'Combie, M.A., Aberdeen; John Milne, South Bank, Yorkshire; Robert Milne, Midmar; John Theodore Morgan, Colombo, Ceylon; Robert James Morice, M.A., Old Aberdeen; Alfred Kingcome Newman, Madras; Frederick Marrant Robertson, Cape Town, South Africa; William Thomas Sheppard, Manchester; Henry Barton Liddell Smith, London; Robert Gordon Smith, Arbroath; Alfred Felix Stevens, London; Henry George Travers Strickland, Isle of Wight; Charles Lethbridge Swaine, Tirhoot, Bengal; Alexander Forbes Trail, Pitsligo; Frank Wollaston Trevor, Welshpool; William Herbert Williamson, Aberdeen; Julius John Eardley Willmott, Weston-super-Mare.

The Degree of C.M.—John Alexander, Jas. Allardyce, Walter Charles G. Collins, Wm. Raymond Cossham, John Smith Craig, Alexander Craigmile, Sorabshaw Hormasji Dantra, Jas. M'Call Fehrsen, Robert Aikman Gray, Francis Hay, Lucius Holland, Herbert James Ilott, Arthur Culver James, Edwin Lawson Koch, James Laing, Patrick James Lawrance, Donald John Macdonald, John M'Combie, John Milne, Robert Milne, John Theodore Morgan, Robert James Morice, Alfred Kingcome Newman, Frederick Marrant Robertson, William Thomas Sheppard, Henry Barton Liddell Smith, Robert Gordon Smith, Alfred Felix Stevens, Henry George Travers Strickland, Charles Lethbridge Swaine, Alexander Forbes Trail, Frank Wollaston Trevor, William Herbert Williamson, Julius John Eardley Willmott. Of the above-mentioned candidates, John Alexander, Alexander Craigmile, Francis Hay, Herbert James Ilott, and William Herbert Williamson received their degrees in Medicine and Surgery, with highest academical honours; Patrick James Lawrance, his degree in Medicine, with academical honours; James Allardyce and John M'Combie, their degrees in Surgery, with academical honours.

At the same time, George Reid and Douglas Wardrop were certified as having passed all the examinations, but did not graduate; and the following were declared to have passed part of their examinations:—William Copland Alexander, James Anderson, Charles Edward Barnard, Robert S. F. Barnes, John Barron, James Walker Beattie, William Bey, Adam Blackhall, David Bower, Fred. James Brennand, Charles Broomhead, Robert William Burnet, Walter Smith Cheyne, Alex. L. Christie, George Cran, Robert Cran, Kharshedji A. Dalal, Rashell T. Davison, John Davy, Wm. Ford Edgelow, George M. Edmond, William W. Elmslie, Thomas Forrest Garvin, Hastings N. V. Harington, John Harris, Alfred Hodgson, John Charles Huxley, George A. Imlay, Robt. Adrian Ironside, Robert Mathers Jack, William Jack, George H. Le Mottée, Alfred de Courcy Lyons, George Robert Macgregor, Alex. Morison M'Aldowie, Justin M'Callum M'Carthy, Patrick B. H. M'Leod, Donald M'Ritchie, Henry Gray M'Robert, John Herbert Mcarns, Irvine Kempt Milne, William Morrish, John F. Murison, John Caie Pearson, William Reid, Arthur W. Scatliff, John M. E. Scatliff, George H. Smith, Hay Livingstone Smith, Robert Smith, John Robert Stuart, Alexander G. Thomson, John Thomson, Charles L. Tuckey, William A. Vice, Henry Watson, Albert Westland, William White, Robert M. Wilson, Henry Worsley, Frederick W. Wright. The next professional examination for degrees in Medicine commences on Saturday, July 25, 1874.

KING AND QUEEN'S COLLEGE OF PHYSICIANS, IRELAND.—At examination meetings of the College held on Tuesday, Wednesday, and Thursday, April 14, 15, and 16, the following candidates obtained the Licence to practise Medicine:—

Jones, Charles John.	Norman, Hugh.
Hayward, William Thornborough.	O'Connor, Frederick.
Marmon, James.	Rawson, Louis William.
Morgan, Evan Abraham.	Stone, William Pierre Patterson.
Morton, Thomas Henry.	Williams, Austin Edward.

The following candidates obtained the Licence to practise Midwifery:—

Hayward, William Thornborough.	Williams, Austin Edward.
Rawson, Louis William.	

At a special examination meeting held on Wednesday, April 8, the Licence to practise Medicine was granted to—

Burke, Dominick, M.R.C.S. Eng.

ROYAL COLLEGE OF SURGEONS OF ENGLAND.—The following gentlemen, having undergone the necessary examinations for the Diploma, were admitted Members of the College at a meeting of the Court of Examiners on the 20th inst., viz.:—

Bellamy, Charles Penrose, Alfred-place, Bedford-square, student of the Middlesex Hospital.
Brown, George, L.S.A., Callington, Cornwall, of Charing-cross Hospital.
Casson, Harwood, Hull, of University College.
Crossman, John, L.S.A., Bideford, North Devon, of St. Thomas's Hospital.
Etheridge, George Dowling, Torquay, Devon, of the Middlesex Hospital.
Fry, John Farrant, L.R.C.P. Lond., Taunton, Somerset, of Guy's Hospital.
Geraty, Thomas, Nottingham, of the Dublin School.
Granger, Farrington Marsden, Leeds, of the Leeds School.
Hawkins, William, Dorchester, of St. Thomas's Hospital.
Llewellyn, Rees Ralph, L.S.A., Whitechapel-road, of the London Hospital.

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Nash, William Gunner. L.S.A., Farnham, Surrey, student of Guy's Hospital.
Nunez, Daniel, L.R.C.P. Lond., Costa Rica, of Guy's Hospital.
Rendall, John, L.S.A., Maiden Newton, Dorset, of Guy's Hospital.
Ring, John, M.D. St. Andrews, and L.S.A., Fowey, Cornwall, of the Middlesex Hospital.
Symons, John George Renny, Saltash, Cornwall, of University College.
Weatherly, Lionel Alexander, M.B. and C.M. Aber., Portishead, Somerset, of the Bristol School.

Three candidates were approved in Surgery, and when qualified in Medicine will be admitted Members of the College; and ten candidates were referred to their studies for six months.

The following gentlemen were admitted Members of the College on the 21st inst., viz.:—

Bates, William, L.S.A., Birmingham, student of the Birmingham School.
Bingham, Samuel, L.S.A., Kirton Lindsey, of Guy's Hospital.
Blake, George Farncombe, Birmingham, of the Birmingham School.
Cooke, Edward Marriott, Alverstoke, Hants, of King's College.
French, Alexander Martin, L.S.A., Falmouth-road, S.E., of Guy's Hospital.
Griffiths, John, Llandyssul, Cardiganshire, of Guy's Hospital.
James, Henry, L.R.C.P. Edin., Southampton, of King's College.
Kyngdon, Frederick Henry, Croydon, of the London Hospital.
Lea, Julian Augustus, L.R.C.P. Edin., Toronto, Canada, of the Charing-cross Hospital.
Lightoller, Harry Martin, Chorley, Lancashire, of the Manchester School.
Morley, Thomas Simmons, Barton-on-Humber, of Guy's Hospital.
Newington, Alexander Samuel Lysaght, Ticehurst, Surrey, of St. Thomas's Hospital.
Perkins, John, Notting-hill, of St. Mary's Hospital.
Rudduck, John Burton, L.S.A., Epping, of the London Hospital.
Rugg, Harold, Grove-road, St. John's-wood, of University College.
Simmonds, William Allason, L.R.C.P. Lond. and L.S.A., Gravesend, of Guy's Hospital.
Tipple, Edwin, L.R.C.P. Edin., Erith, Kent, of Guy's Hospital.
Williamson, George Edward, North Shields, of the London Hospital.
Williams, Philip Henry, Monmouth, of St. Thomas's Hospital.

Three candidates were approved in Surgery, and when qualified in Medicine will be admitted Members of the College; and six candidates, having failed to acquit themselves to the satisfaction of the Court, were referred to their hospital studies for six months.

APOTHECARIES' HALL.—The following gentlemen passed their examination in the Science and Practice of Medicine, and received certificates to practise, on Thursday, April 16:—

Butter, George Bleeck, Warminster.
Dalton, Charles Bernard, Whitehaven.
Dyson, William, Thurgoland, near Sheffield.
Harrison, Charles Edward, Upper Norwood.
Taylor, Joseph, Hathersage, near Sheffield.

APPOINTMENTS.

*** The Editor will thank gentlemen to forward to the Publishing-office, as early as possible, information as to any new Appointments that take place.

BRISCOE, WILLIAM THOS., M.B.—Medical Officer of Health for Chippenham.
CASS, STAFFORD THOMAS, M.R.C.S. Eng., L.R.C.P. Edin., L.S.A.—Resident Medical Officer to the Kilburn Dispensary.
CORNWALL, JOHN, M.R.C.S. Eng., L.S.A.—Medical Officer for No. 6 District, Bridgwater.
GRIFFITH, ROBERT POOLE, M.R.C.S. Eng., L.K.Q.C.P.I.—An Assistant Civil Surgeon in the Island of Mauritius.
PYE-SMITH, PHILIP HENRY, B.A., M.D., M.R.C.P.—Honorary Consulting-Physician to the British Orphan Asylum, Mackenzie-park, Slough.
TURNELL, A. S., M.R.C.S. Eng., L.S.A.—House-Surgeon to the East Suffolk Hospital, Ipswich.
TURNER, JAMES SMITH, M.R.C.S., L.D.S.—Dental Surgeon to the Middlesex Hospital.

NAVAL APPOINTMENT.

ADMIRALTY.—W. Richardson, Staff Surgeon, to the *Indus*.

BIRTHS.

ASHTON.—On March 24, at Allahabad, the wife of Staff Surgeon-Major W. Ashton, Army Medical Department, of a daughter.
HULLAH.—On March 9, at Robertson, Cape of Good Hope, the wife of Robert Hullah, M.R.C.S., of a daughter.
LYNES.—On April 19, at 9, Priory-row, Coventry, the wife of Edward Lynes, M.D., of a son.
NOAD.—On April 19, at Lower Norwood, the wife of H. Carden Noad, L.R.C.P., M.R.C.S., of a son.
PEARSON.—On April 18, at 23, Upper Phillimore-place, Kensington, the wife of David R. Pearson, M.D., of a son.
RIDGE.—On April 16, at Carlton House, Enfield, the wife of J. J. Ridge, M.D., B.S., B.A. Lond., of a son.
SUTCLIFFE.—On April 19, at Denmark-hill, S.E., the wife of John Sutcliffe, M.R.C.S. Eng., of a son.

MARRIAGES.

HENRY—MASSY.—On March 23, at Bangalore, India, George Henry, Lieutenant Royal Engineers, son of the late Rev. Thomas Henry, Rector of Kilcommack, co. Longford, to Mary Helen, eldest daughter of Deputy Surgeon-General Massy, C.B.

LINGEN—TOOTH.—On April 21, at All Saints, Kensington-park, John Taylor Lingen, B.A., Pembroke College, Cambridge, barrister-at-law, only surviving son of Charles Lingen, M.D., J.P., Hereford, to Julia Lucas, eldest surviving daughter of the late Erwin Tooth, Esq., of Sydney, and Cleveland-square.
MADDEN—BRAILSFORD.—On April 21, at the parish church, Jacobstowe, Devon, Lewis P. Madden, M.D., M.R.C.P. Lond., to Mary Andromache, second daughter of the late Rev. Hodson Brailsford, D.D., rector of Exbourne and Honeychurch, Devon.
PERIGAL—BECK.—On April 16, at the British Legation, Rome, Arthur Perigal, jun., M.D., Wheatley, Oxon., son of Arthur Perigal, Esq., R.S.A., Edinburgh, to Helena Jane, only daughter of the late F. J. Beck, Esq., of Norbury Villa, Blackheath, Kent.
STANISTREET—WELD.—On April 7, at St. Peter's Church, Dublin, Henry Dawson Stanistreet, L.R.C.S.I., L.A.H., Surgeon Royal Marine Light Infantry, to Elizabeth Isabel, eldest daughter of Joseph Weld, Esq., 1, Grosvenor-road North, Rathgar.
WATSON—LANG.—On April 21, at St. Mary's, Boltons, South Kensington, John Watson, Captain Madras Staff Corps, to Alice Maud, eldest daughter of J. T. S. Lang, M.R.C.S. Eng., L.S.A., of Finborough-road, West Brompton.
WHITE-JACKSON.—On April 21, after banns, at Christ Church, Spitalfields, the Rev. J. D. White, B.A., vicar of West Batterwick, near Gainsborough (and late Scholar of Queen's College, Cambridge), to Amelia Gervis (Tillie), younger daughter of G. H. Jackson, M.D., of Lansdowne House, Tottenham.

DEATHS.

ARNOLD, RICHARD, late Surgeon-Major H.M. Indian Medical Service, at Grove Cottage, Woolston, Southampton, on April 20, aged 40.
DON, LOUISA JANE, wife of Surgeon-Major W. G. Don, and second daughter of Commander E. Elliott, R.N., at 2, Cotehele-terrace, Stoke, Devonport, on April 16, aged 32.
GANGE, LAURA, wife of Albert Gange, L.R.C.P. Edin., M.R.C.S. Eng., at The Poplars, Cunningham-place, St. John's-wood, on April 18, aged 45.
NIND, PHILIP PITT, M.R.C.S. Eng., L.S.A., only son of the late Captain Philip Pitt Nind, 3rd Light Cavalry, at Torquay, aged 50.
PITMAN, HANNAH, wife of Robert Pitman, L.R.C.P., at Acacia House, Highgate-hill, on April 18.
ROE, CATHERINE MARIA, wife of Edward T. Roe, M.D., and daughter of the late Henry and Catherine Raye, at Paris, after eight years of suffering, on April 18.
SUTTON, FRANCIS EDWARD, son of Frederick Sutton, M.R.C.S. Eng., L.S.A., Resident Medical Superintendent at the Norwich Borough Lunatic Asylum, on April 18, aged 6 months.
SWIFT, JOHN L., M.D., of Syracuse, New York, U.S.A., at Mentone, France, on April 14.

VACANCIES.

In the following list the nature of the office vacant, the qualifications required in the Candidate, the person to whom application should be made, and the day of election (as far as known) are stated in succession.

ALNWICK INFIRMARY.—House-Surgeon. Candidates must be duly qualified. Applications, with testimonials, to W. T. Hindmarsh, Esq., Honorary Secretary, on or before May 2.
BERKS COUNTY ASYLUM, MOULSFORD, WALLINGFORD.—Assistant Medical Officer. Candidates must be duly qualified. Applications, with testimonials, to Dr. R. B. Gilland, Medical Superintendent.
BRISTOL GENERAL HOSPITAL.—Physician. Candidates must be duly qualified. Applications, with testimonials, to the Secretary, Henry Fox, Esq., R.N.
CHELTENHAM GENERAL HOSPITAL AND DISPENSARY.—Honorary Medical Officer at the Branch Dispensary. Candidates must be duly qualified and registered. Applications, with testimonials, to the Board of Governors before May 1.
HULL GENERAL INFIRMARY.—Honorary Physician. Applications, with testimonials, to the Chairman, at the Infirmary.
KILBURN DISPENSARY.—Assistant Resident Medical Officer. Candidates must be duly qualified. Applications, with testimonials, to the Honorary Secretary, 33, Boundary-road, Finchley-road, N.W., on or before May 4.
KING'S COLLEGE HOSPITAL.—Assistant-Physician, Pathological Registrar, and Curator of the Anatomical Museum. For particulars apply to J. W. Cunningham, Esq., King's College, Strand.
KING'S COLLEGE HOSPITAL.—Assistant Dental Surgeon. For particulars apply to J. W. Cunningham, Esq., Secretary, King's College, Strand.
LANCASTER COUNTY ASYLUM.—Assistant Medical Officer. Applications, with testimonials, to the Superintendent.
LEEDS GENERAL INFIRMARY.—House-Physician, also House-Surgeon. Candidates must be duly qualified. Applications, with testimonials, to Dr. Heaton, The Infirmary, Leeds, on or before April 30.
LINCOLN COUNTY HOSPITAL.—House-Surgeon and Apothecary. Candidates must be M.R.C.S. Eng. and L.S.A., or L.R.C.P. Lond. Applications, with testimonials, to the Secretary, on or before May 4.
MIDDLESEX HOSPITAL.—Resident Physician's Assistant. Applications before twelve o'clock, on Saturday, April 25, and candidates to attend the Medical Committee at 1.30 on the same day.
ROYAL LONDON OPHTHALMIC HOSPITAL, BLOMFIELD-STREET, MOORFIELDS, E.C.—Curator. Applications, with testimonials, to R. J. Newstead, Secretary, on or before May 4.
ST. THOMAS'S HOSPITAL.—Resident Assistant-Physician. Candidates must be duly qualified. Applications, with testimonials, to the Treasurer, at the office, St. Thomas's Hospital.
WINDSOR ROYAL INFIRMARY.—House-Surgeon. Applications, with testimonials, to Mr. G. Cartland, Secretary, on or before April 29.
WOLVERHAMPTON AND STAFFORDSHIRE GENERAL HOSPITAL.—House-Surgeon. Candidates must be duly qualified. Applications, with testimonials, to the Chairman of the Medical Committee, on or before April 27.

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UNION AND PAROCHIAL MEDICAL SERVICE.

*** The area of each district is stated in acres. The population is computed according to the census of 1871.

RESIGNATION.

Erpingham Union.—Mr. Thomas Prangley has resigned the Alborough District; area 8677; population 1974; salary £40 per annum.

APPOINTMENTS.

Bridgwater Union.—John Cornwall, M.R.C.S. Eng., L.S.A., to the Sixth District.

Caistor Union.—Richard A. Lett, B.M. & M.C. Dub., to the Waddingham District.

Chesterton Union.—Patrick J. Molony, M.D. & M.C. Dub., to the Chesterton District.

Fulham Union.—Henry F. E. Harrison, L.R.C.P. Lond., M.R.C.S. Eng., to the Fourth District.

Knaresborough Union.—Wm. Renton, L.R.C.P. Edin., L.R.C.S. Edin., L.S.A. Lond., to the Knaresborough District.

Narberth Union.—John Phillips, M.R.C.S. Eng., L.S.A., to the Narberth District and the Workhouse.

St. Saviour's Union.—Morden Wright, M.R.C.S. Eng., L.S.A., to the Eighth District.

Skirlaugh Union.—Samuel N. Harrison, M.R.C.S. Eng., L.R.C.P. Edin., to the Aldborough District. Wm. Kirk, jun., M.R.C.S. Eng., L.S.A., to the Sproatley District.

Spalding Union.—James H. Ashworth, L.R.C.P. Edin., L.F.P. & S. Glasg., L.S.A. to the Deeping St. Nicholas District.

Torrington Union.—Henry B. Pattinson, M.R.C.S. Eng., L.S.A., to the Peters Marland District.

PASS EXAMINATIONS.—The following were the questions on Surgical Anatomy, and the Principles and Practice of Surgery, submitted to the candidates for the diploma of Membership of the Royal College of Surgeons on the 17th instant, viz.:—1. Mention in order the various structures which must be divided in Syme's amputation at the ankle-joint. 2. Enumerate the various forms of hydrocele of the testicle and spermatic cord; and describe the pathological anatomy, diagnostic symptoms, and treatment of that form which most commonly affects the cord. 3. Describe the operation for extirpation of the eyeball, and mention in their order the parts divided. 4. What treatment would you adopt in a wound of the deep palmar arch? Give the anatomical reasons which would guide your treatment in the difficulties that may arise. 5. Describe the operation of tying the common iliac artery. State by what channels the collateral circulation would be carried on. 6. Describe the usual dislocation of the thumb at the metacarpo-phalangeal joint; explain the difficulty sometimes experienced in its reduction; and indicate the appropriate treatment of this injury when simple and when compound. The following were the questions on the Principles and Practice of Medicine on the 18th inst., viz.:—1. Describe briefly a case of acute rheumatism, with the appropriate treatment. Afterwards state the complications which may arise, giving the diagnosis of pericarditis, endocarditis, pleurisy, and pneumonia, or any other complications which you may remember. 2. Describe a case of diabetes, detailing the symptoms and treatment, both medical and dietetical, together with the tests for sugar. As far as time will allow, mention some of the theories as to its nature or causes. 3. Mention some of the more common aperient medicines contained in the Pharmacopœia. Write a prescription for an appropriate purge in renal dropsy; another for an occasional pill in chronic hepatic disease; and a third for a medicine suitable for habitual constipation in a young female.

THE deaths registered in London last week were 1339, which was 304 below the average. There were 45 deaths from measles, which exceeded the average.

NOTES, QUERIES, AND REPLIES.

"He that questioneth much shall learn much."—*Bacon.*

Dr. Foster Jenkins, Yonkers.—Letter, with enclosure, received.

Dr. Anderson, Singapore.—Letter, with enclosure, received.

Dr. Gray, Oxford.—The MS. has been received, and the paper shall appear at once.

Sanitary Reform.—The Italian proverb says—"See Naples and die." "I saw it," says an American traveller, "I saw it and survived; but it was a narrow squeak, for the stench of it nearly killed me!"

Senex.—Dr. Lyon is the secretary of the Bombay Medical and Physical Society.

A Subscriber.—The meeting was held at the Royal Medical and Chirurgical Society, Berners-street, on Thursday, March 24, 1870.

An Analyst.—"A Treatise on Food and Dietetics, Physiologically and Therapeutically Considered," by Dr. F. W. Pavy, F.R.S.: J. and A. Churchill, London.

Alpha.—The inhabitants of Blantyre, Scotland, where the late Dr. Livingstone was born, have resolved to erect a monument to his memory in the new cemetery.

Lionel G.—The Report of the Registrar-General on the Census of 1871 shows that the return of emigrants to this country has, since 1860, been going on at a much greater rate than previously.

D. D., Croydon.—During the years 1871 and 1872, 4747 cases of small-pox were under treatment at the Stockwell Hospital alone, the average death-rate being 17·8 per cent.

A CONTRAST TO THE CASE OF MR. JACKMAN.

TO THE EDITOR OF THE MEDICAL TIMES AND GAZETTE.

SIR,—The Committee of the Surrey County Gaol have settled £900 per annum on the governor of the gaol; the Guardians of the Barnstaple Union have as yet settled on Mr. Jackman—*nothing!*

I am, &c., A COUNTRY DOCTOR.

Associate, King's College, Stockwell.—Sir William Fergusson is the first Baronet, having been created in 1866. He was born at Preston Pans, near Edinburgh, March 20, 1808. He has two sons and three daughters.

Dr. McM., Devonport.—The gentleman mentioned is a surgeon-major, and takes precedence of "majors"—ranking, in fact, with (but after) lieutenant-colonels, according to Dod's "Peerage," etc.

M.D. St. Andrews.—We do not undertake to decide professional or other bets; but as a graduate of St. Andrews you take precedence of all universities, with the exception of Oxford and Cambridge. The following are the universities of the United Kingdom, with the dates of their foundation, viz.:—1. Oxford, 886; 2. Cambridge, 1110; 3. St. Andrews, 1413; 4. Glasgow, 1450; 5. Aberdeen, 1494; 6. Edinburgh, 1582; 7. Dublin, 1593; 8. London, 1836; 9. Durham, 1837; and 10. Queen's University in Ireland, 1850.

"Ding-Dong," "Pooh-Pooh," and "Bow-Wow."—"A. G." will probably find what he wants in the linguistic works of William Dwight Whitney, Professor of Sanscrit and of Comparative Philology in Yale College, U.S. They are to be had at Trübner's, Paternoster-row. What is elegantly called the "ding-dong" theory of language was promulgated by Max Müller. According to this there was a certain instinct in primitive man, impelling him irresistibly to give "phonetic expression" to each conception, as it for the first time thrilled through the brain, just as a bell rings out a note when struck. It is assumed that these "phonetic expressions" were the primitive roots of words. But there is no proof of this theory. On the other hand, the two theories or modes of accounting for the roots of language which have been held up to ridicule under the nickname of the "pooh-pooh" and the "bow-wow" theories, are much more consonant with probability and with what we see of the formation of new words as it goes on at the present day. According to the "pooh-pooh" theory, words are coined out of, or in imitation of, the interjections or exclamations which are uttered under strong emotion: the words "pooh-pooh," "pish," "pshaw," and other expressions of contempt or disgust are well-known examples. The "bow-wow" theory traces words to the imitation of natural objects or sounds—hence such words as "cuckoo," "bow-wow," "kau-kau" (Tamil word for crow), "buzz," and the like. To us the "pooh-pooh" and "bow-wow" theories, or the imitation theories, as they may more respectfully be called, seem to stand on secure grounds. There is a question closely connected with this. In Whitney's words—"Did the first impulse to speech come from within or from without? Were words pushed out by a longing after expression for the sake of the benefit and relief afforded thereby to the individual's own mind, or were they drawn forth by the desire to make known to another what lay in the utterer's thought? Were they framed as the means of expression pure and simple, or of communication?" If the former view be upheld, we should look for some internal and necessary tie between the conception and its sign, naturally inherent in the latter, and determining its assignment to its office. On the other theory, no such tie would be implied, and the only adaptedness in the sign would be its capacity of being readily understood by the person to whom it was addressed. In other words, "the recognition of communication as the primary and ultimate object of speech involves as its necessary consequence an acceptance of the 'imitative' theory of the origin of speech. The first requisite in speech seems to be the power of forming a conception and the desire to communicate it. Then the first framers of speech probably stood to each other in the same relation as two persons at the present day, neither of whom understood the other's language, in which case all the resources of imitative expressions would be brought into requisition by them—grimace, gesture, posture, imitative utterance, onomatopoietic or exclamatory, symbolical utterance, so far as in this there was power of suggesting an intended meaning." But we must neither give a dissertation of our own nor quote too largely from Mr. Whitney; suffice it that we have pointed to this writer's works as embodying sound principles of linguistic science.

S. H. F. H.— "Each doctor took such pains
To draw the blood from almost bloodless veins."

Mr. G. J. Johnston.—Nightingale, in his "History of London," states of the Rev. Theophilus Lobb, M.D., F.R.S., that, "unlike many of his profession, he knew how to unite the advantages of a liberal education and a plentiful income with the superior one of a devout life." He preached at a dissenting meeting-house adjoining Haberdashers' Hall.

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COMMUNICATIONS have been received from—

Mr. C. Greig, Clifton; Messrs. J. and F. Anderson, Edinburgh; Mr. J. Roberts, Bicton; Mr. L. H. Fawcett, Morebath; Dr. Routh, London; Dr. Anderson, Singapore; Dr. J. M. Finny, Dublin; Mr. H. P. Dunn, Warkworth; Messrs. Calvert and Co., Manchester; Mr. Paul Reed, Bridgwater; The Clerk of the Sanitary Authorities at Cheltenham; The Secretary of the Middlesex Hospital; Dr. J. G. Wilson, Glasgow; Mr. W. P. Blanchard, London; Dr. Gray, Oxford; Mr. A. H. Moses, London; Dr. Sparks, London; Mr. C. Leonard, Clifton; Mr. H. K. Hitchcock, Lewisham; A Country Doctor; Dr. Joseph Rogers, London; Mr. E. H. Clarke, Boston, U.S.A.; Messrs. Corbyn and Co., London; The Honorary Secretary of the Kilburn Dispensary; Mr. J. B. Keene, London; Sir Duncan Gibb, Bart., London; The Secretary of the Apothecaries' Hall, London; Mr. E. Stevens, London; Dr. Foster Jenkins, Yonkers; The Secretary of the East Suffolk Hospital; Mr. C. Willmore, Stockbridge; Mr. Frederick Sutton, Norwich; Mrs. Holmes Coote, London; Dr. C. H. Crane, Washington; Dr. Sankey, Andoversford; Dr. Martin, Melbourne; Mr. J. S. Brazier, Aberdeen; Mr. G. Sutton, London; Dr. Alfred Meadows, London; Mr. F. F. Baillière, Melbourne; Dr. A. Moffitt, Melbourne; Mr. S. J. Burrows, Witheridge; Dr. Madden, Jacobstowe; Dr. E. Lynes, Coventry; Mr. Benjamin Vincent, London; Mr. German Reed, London; Mr. George M. Stansfeld, Redland; Mr. J. W. Holloway, Peckham; Mr. W. Jones Morris, Port Madoc; Mr. A. Mackenzie, London; Dr. C. Handfield Jones, London; Dr. Murchison, London; Dr. J. Russell, Birmingham; Mr. G. F. Masterman, Burnham, Bucks; Sir Thomas Watson, Bart., London; Mr. J. Chatto, London; Dr. J. M. Toner, Washington; Dr. J. B. Russell, Glasgow.

BOOKS AND PAMPHLETS RECEIVED—

Monthly Report of the Health and Meteorology of the Parish of St. Marylebone, by Dr. J. Whitmore—Report of the Association for the Oral Instruction of the Deaf and Dumb—Erichsen on Hospitalism and the Causes of Death after Operations—Catalogue of the Library of the Surgeon-General's Office, Washington, U.S.A.—Jenkins' Family Medical Index—Annual Report of the Somerset County Pauper Lunatic Asylum—The Dental Profession, a Letter to the Editor of a London Newspaper by a Dental Surgeon—Annual Report of the Massachusetts Charitable Eye and Ear Infirmary—Annual Report of the Sussex County Lunatic Asylum—Woodward's Lecture on the Structure of Cancerous Tumours, and the Mode in which Adjacent Parts are Invaded—Dictionary of Elevations and Climatic Register of the United States, by J. M. Toner, M.D.—Russell's Mortality Tables of the City of Glasgow.

PERIODICALS AND NEWSPAPERS RECEIVED—

Lancet—British Medical Journal—Medical Press and Circular—Natur-Centralblatt für Chirurgie—Berliner Klinische Wochenschrift—Allgemeine Wiener Medizinische Zeitung—Bulletin de l'Académie de Médecine—Gazette des Hôpitaux—Gazette Médicale de Paris—La France Médicale—La Tribune Médicale—Le Progrès Médical—Pharmaceutical Journal—On Guard—Gazette Hebdomadaire—Revue des Sciences Médicales—Melbourne Medical and Surgical Review—New South Wales Medical Gazette—Canada Lancet.

APPOINTMENTS FOR THE WEEK.

April 25. Saturday (this day).

Operations at St. Bartholomew's, 1½ p.m.; King's College, 2 p.m.; Charing-cross, 2 p.m.; Royal Free, 9 a.m. and 2 p.m.; Hospital for Women, 9½ a.m.; Royal London Ophthalmic, 11 a.m.; Royal Westminster Ophthalmic, 1½ p.m.; St. Thomas's, 9½ a.m.

Royal Institution, 3 p.m. Prof. Seeley.

27. Monday.

Operations at the Metropolitan Free, 2 p.m.; St. Mark's Hospital for Diseases of the Rectum, 2 p.m.; St. Peter's Hospital for Stone, 3 p.m.; Royal London Ophthalmic, 11 a.m.; Royal Westminster Ophthalmic, 1½ p.m.

Medical Society of London, 8 p.m. Dr. Spender (Bath), "On Therapeutic Means for the Relief of Pain" (Fothergillian Essay, 1874). Dr. Routh, "On certain New Preparations of Phosphorus and their Action on the Economy." Mr. Ashburton Thompson, "On the Medicinal Use of Free Phosphorus." Mr. Wm. Adams, "On a Case of Strangulated Femoral Hernia reduced by a Large Injection of Oil."

28. Tuesday.

Operations at Guy's, 1½ p.m.; Westminster, 2 p.m.; National Orthopædic, Great Portland-street, 2 p.m.; Royal London Ophthalmic, 11 a.m.; Royal Westminster Ophthalmic, 1½ p.m.; West London, 3 p.m.

Anthropological Institute, 8 p.m. Meeting.

Royal Institution, 3 p.m. Prof. Rutherford, "On the Nervous System."

Royal Medical and Chirurgical Society, 8½ p.m. Dr. Dobell, "On the Natural History of Pulmonary Consumption." Mr. Barwell, "On Septic Disease in and out of Hospitals."

29. Wednesday.

Operations at University College, 2 p.m.; St. Mary's, 1½ p.m.; Middlesex, 1 p.m.; London, 2 p.m.; St. Bartholomew's, 1½ p.m.; Great Northern, 2 p.m.; St. Thomas's, 1½ p.m.; Samaritan, 2½ p.m.; King's College (by Mr. Wood), 2 p.m.; Royal London Ophthalmic, 11 a.m.; Royal Westminster Ophthalmic, 1½ p.m.

30. Thursday.

Operations at St. George's, 1 p.m.; Central London Ophthalmic, 1 p.m.; Royal Orthopædic, 2 p.m.; University College, 2 p.m.; Royal London Ophthalmic, 11 a.m.; Royal Westminster Ophthalmic, 1½ p.m.

Royal Institution, 3 p.m. Mr. W. Noel Hartley, "On the Atmosphere."

May 1. Friday.

Operations at Central London Ophthalmic, 2 p.m.; Royal London Ophthalmic, 11 a.m.; South London Ophthalmic, 2 p.m.; Royal Westminster Ophthalmic, 1½ p.m.; St. George's (ophthalmic operations), 1½ p.m.

Royal Institution (Annual Meeting, 2 p.m.), 9 p.m. Prof. Rolleston, "Early Inhabitants of North of England."

VITAL STATISTICS OF LONDON.

Week ending Saturday, April 18.

BIRTHS.

Births of Boys, 1278; Girls, 1264; Total, 2542.
Average of 10 corresponding years 1864-73, 2176·7.

DEATHS.

	Males.	Females.	Total.
Deaths during the week	675	664	1339
Average of the ten years 1864-73	769·8	723·9	1493·7
Average corrected to increased population	...	...	1643
Deaths of people aged 80 and upwards	...	...	36

DEATHS IN SUB-DISTRICTS FROM EPIDEMICS.

	Population, 1871.	Small-pox.	Measles.	Scarlet Fever.	Diphtheria.	Whooping-cough.	Typhus.	Enteric (or Typhoid) Fever.	Simple continued Fever.	Diarrhœa.
West	561359	...	15	...	...	4	...	2	...	5
North	751729	...	6	1	...	12	1	6	2	5
Central ...	334369	...	8	2	1	5	...	2	1	1
East	639111	...	7	12	2	10	...	2	...	2
South	967692	...	9	3	4	15	1	4	2	2
Total	3254260	...	45	18	7	46	2	16	5	15

METEOROLOGY.

From Observations at the Greenwich Observatory.

Mean height of barometer	29·647 in.
Mean temperature	47·1°
Highest point of thermometer	64·3°
Lowest point of thermometer	36·0°
Mean dew-point temperature	42·6°
General direction of wind	N.N.E. & N.W.
Whole amount of rain in the week	0·83 in.

BIRTHS and DEATHS Registered and METEOROLOGY during the Week ending Saturday, April 18, 1874, in the following large Towns:—

Boroughs, etc. (Municipal boundaries for all except London.)	Estimated Population to middle of the year 1874.*	Persons to an Acre. (1874.)	Births Registered during the week ending April 18.	Deaths Registered during the week ending April 18.	Temperature of Air (Fahr.) Highest during the Week.	Lowest during the Week.	Weekly Mean of Mean Daily Values.	Temp. of Air (Cent.) Weekly Mean of Mean Daily Values.	Rain Fall. In Inches.	In Centimetres.
London	3400701	45·1	2542	1339	64·3	36·0	47·1	8·39	0·33	0·84
Portsmouth ...	120436	26·8	90	55	...	...	...	...	0·35	0·89
Norwich	82257	11·0	61	35	56·5	30·5	43·7	6·50	0·33	0·84
Bristol	192889	43·3	136	86	61·0	38·4	47·9	8·83	0·42	1·07
Wolverhampton ...	70896	20·9	46	30	62·4	33·1	45·6	7·55	0·40	1·02
Birmingham ...	360892	43·0	310	168	62·6	34·8	46·7	8·16	0·56	1·42
Leicester	106202	33·2	99	44	60·0	35·0	47·3	8·50	0·69	1·75
Nottingham ...	90891	45·5	78	50	61·4	30·6	46·6	8·11	0·54	1·37
Liverpool	510640	98·0	421	268	55·3	35·8	45·3	7·39	0·39	0·99
Manchester ...	353·9	82·8	274	201	62·0	31·0	45·4	7·44	0·34	0·86
Salford	133·68	25·7	117	65	60·0	32·1	44·9	7·17	0·33	0·84
Oldham	86281	18·5	67	48	57·0	...	...	...	0·52	1·32
Bradford	163056	22·6	185	64	60·2	33·4	43·7	6·50	0·72	1·83
Leeds	278798	12·9	238	155	59·0	33·0	44·2	6·78	0·73	1·85
Sheffield	261029	13·3	185	124	58·0	32·0	44·9	7·17	0·80	2·03
Hull	130996	36·0	98	41	...	...	...	...	...	...
Sunderland ...	104378	31·6	68	43	...	...	...	...	...	...
Newcastle-on-Tyne	135437	25·2	108	61	52°C	34·0	43·5	6·39	0·47	1·19
Edinburgh	211691	47·8	143	99	...	...	...	...	...	...
Glasgow	508109	100·4	445	307	...	...	...	...	...	...
Dublin	314666	31·3	222	202	62·0	32·6	48·2	9·00	0·46	1·17
Total of 21 Towns in United Kingdm	7618655	36·6	5933	3485	64·3	30·5	45·7	7·61	0·49	1·24

At the Royal Observatory, Greenwich, the mean reading of the barometer last week was 29·65 in. The lowest was 29·06 in. on Monday afternoon, and the lowest 29·92 in. at the end of the week.

* The figures for the English and Scottish towns are the numbers enumerated in April, 1871, raised to the middle of 1874 by the addition of three years and a quarter's increase, calculated on the rate which prevailed between 1861 and 1871. The population of Dublin is taken as stationary at the number enumerated in April, 1871.

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ORIGINAL LECTURES.

COMMENTARIES ON DISEASE IN CHILDREN.

By EUSTACE SMITH, M.D. Lond.,
Physician to H.M. the King of the Belgians,
Physician to the East London Children's Hospital,
Assistant-Physician to the Victoria-park Hospital for Diseases of the Chest.

LECTURE V.—ACUTE GENERAL TUBERCULOSIS (GRANULIA).

(*Continued from page 446.*)

THE symptoms of acute tuberculosis are difficult to describe, on account of the great variety of the shapes in which the disorder may manifest itself. As a constitutional disease affecting the body generally, it may give rise to general symptoms denoting the distress into which the whole system is thrown; and as a local disease affecting particularly special organs, it may excite special symptoms arising from the particular organ which is the principal seat of pathological change.

The general symptoms almost invariably appear before the local, and on this account they are often spoken of as *premonitory* symptoms, ushering in the more distinctive signs of disease of organs. When these latter occur, their intensity is usually so great as completely to overpower the symptoms by which they had been preceded. Thus, the symptoms of tubercular meningitis seldom come on suddenly in a healthy child, but are introduced by several weeks of obscure malaise which presents little that is characteristic, and merely hints vaguely at the presence of disease without offering any distinctive signs by which the nature of the complaint can be recognised. This malaise is the expression of a general as distinguished from a local disease, and denotes the influence of the constitutional disorder upon the entire system. The collection of symptoms more or less definite of which it is composed are the outward manifestation of the general disease —acute tuberculosis. The general symptoms consist of little more than pallor, languor, and fever, with gradual loss of flesh. The first change noticed is usually in the complexion of the child: his face loses its healthy tint, and becomes peculiarly pallid and transparent. In the morning this is especially noticeable; towards evening there is usually a bright flush on the cheek-bones, contrasting markedly with the intense pallor which still exists round the nose, mouth, and chin. Almost at the same time the child becomes languid and often irritable; he looks wearied, complains of feeling tired, and lies about instead of amusing himself with the usual sports of his age.

The temperature is a very important symptom; it rises in the evening to 100° or 101°, seldom higher, and generally falls again to a certain extent towards the morning. This increase of temperature is not always readily estimated by the touch. The palms of the hands, and the forehead often feel dry and hot; but the general surface does not necessarily present to the hand of the observer any marked symptom of fever. The thirst, however, is usually great, the appetite poor, and the pulse quick and irritable. The fever sometimes takes on a remittent character, and children who are old enough to describe their sensations will complain of feeling cold at certain, often regular, intervals, and may even shiver; but it is rare for actual rigors to take place. The feeling of chilliness may be merely a subjective symptom, or may be accompanied by an actual diminution of the temperature of the body. The regularity with which it occurs is often suggestive of ague, but the stages of cold, heat, and sweating do not follow one another with any uniformity, and present many peculiarities which distinguish the case from one of intermittent fever. The chilliness begins generally in the evening, and occurs at about the same time every night. Shivering is very rare, and sweating is often absent. In the interval the state of the patient is very far from being satisfactory: it is not an intermission, but a remission of the fever, and the temperature is not normal between the attacks.

Loss of flesh soon follows the pyrexia, but the symptom is one which varies greatly in intensity. The emaciation may be rapid or slow, and sometimes, especially in children at the breast, proceeds so gradually as to cast doubts on the accuracy of the diagnosis. If there be any diarrhœa the wasting is more rapid. The bowels, indeed, are very often irritable early in the disease, but the looseness is apt to alternate with constipation.

The urine often contains a little albumen, and occasionally a certain amount of œdema may be present in the hands and feet, and even in the face. Œdema is a symptom which may be produced by other diseases whose tendency is to cause much impoverishment of the blood, such as simple chronic non-tubercular diarrhœa; but when combined with a moderately elevated temperature it is very suspicious of tuberculosis.

In the above collection of symptoms there is nothing which marks out the disease with any distinctness so that it can be immediately recognised. The beginning is very gradual as a rule, and nutrition is interfered with but slowly. When fully developed the symptoms are merely those of fever, and indicate some general disturbance of the system; hence until local signs arise to draw attention to some particular organ, the nature of the disease must often remain—at any rate, for a considerable time—a matter of doubt. On account of the frequency with which a functional derangement of the bowels is present early in the disease, there is an especial danger that the case may be mistaken for typhoid fever, to which disorder the symptoms under such circumstances may present the very closest resemblance. In rare instances there is a mode of beginning which is almost identical with continued fever. The disease breaks out with more abruptness: there is headache, bleeding from the nose, and the bowels are relaxed or confined; the child is very feverish, restless, and stupid. Such cases are uncommon. In one which came under my own notice there was a peculiar dusky tint of the complexion, and after some days a strange, dull mottling of the skin was observed, which gave the case a close resemblance to true typhus.

The special symptoms arise from the head, the chest, and the abdomen; but these cavities are seldom equally affected, and usually one or another of them gives rise to evidences of distress, showing that the contained organs have become the especial seat of the disease. In a description of acute tuberculosis it is convenient, for the sake of clearness, to take each cavity separately, but it must be remembered that the special symptoms are not necessarily limited to one group of organs —on the contrary, they are variously combined; and the same case may present at one time symptoms from each of the cavities of the body.

Most commonly it is the lungs which first give rise to special symptoms. In almost all cases the disease has not proceeded far before a short hacking cough begins to be noticed, indicating a certain irritation of the air-passages. The cough in the beginning is infrequent and dry, and an examination of the chest reveals no signs of pulmonary mischief. After a time, however, the cough is heard more frequently, but still there is no dulness, and a stethoscopic examination rarely discovers anything but weak, harsh breathing, with a little scanty sibilant rhonchus scattered here and there about the lungs. This absence of physical signs is an important symptom in such cases; for if the cough be frequent and dry, the breathing hurried, and the temperature elevated, the absence of distinct physical signs should lead us to entertain strong suspicions of the tuberculous nature of the disease. The breathing is not, however, necessarily much quickened. There may be little increase in the number of respirations throughout the whole course of the disease—so long, at least, as the physical signs remain insignificant. If, however, as generally happens, a secondary bronchitis be set up, or pneumonic changes occur, the breathing may become hurried, and in such a case the physical signs would indicate the nature of the secondary lesion. It often becomes a nice question, when the patient is seen for the first time under such circumstances, to decide upon the tuberculous or non-tuberculous origin of these affections.

The most characteristic form, perhaps, is that in which a secondary bronchitis is occasioned by the presence of the grey granulation in the air-passages. Here the breathing is rapid, and the nares act in respiration; the intercostal spaces sink in deeply; there is some lividity of the face, and the countenance indicates considerable distress. The pulse is small and rapid, and the temperature rises to between 102° and 103°. On auscultation of the chest, we find the breathing covered by crisp medium-sized bubbles, which have a certain ringing quality, and occupy the whole extent of both inspiration and expiration. This rhonchus is heard at all parts of the chest, although it may be most abundant at the upper parts of the lungs. In other respects the physical signs are normal: the resonance on percussion is perfect, and the vocal resonance and the natural vibration of the chest-walls are unaltered. Sometimes in such cases, when the patient is very

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young, local collapses may occur, especially at the apices of the lungs. The percussion-note then becomes slightly dull, and faint bronchial breathing is detected over the seat of the lesion. These signs occur with very great irregularity, being present one day, to disappear the next, and seldom persist longer than two or three days in succession. Often, however, a permanent dulness may be found at one or more spots; the respiration is then louder and bronchial or blowing, often completely tubular, and the rhonchus, where these signs occur, becomes drier in quality and more distinctly crepitating. The temperature at the same time rises to 103° or higher, the lividity increases, the breathing becomes distinctly laborious, and there is much recession of the soft parts of the chest, and of the lower ribs, during inspiration. These symptoms are due to the occurrence of catarrhal pneumonia, and foretell a rapid ending to the disease. The lividity and distress increase, the respiration and pulse become more and more hurried, the emaciation proceeds with rapidity, and the child dies exhausted. Death is often preceded by convulsions, followed by unequal pupils, strabismus, paralytic lesions, and other signs indicating implication of the cerebral meninges.

The following case presents a good illustration of the pulmonary form of acute tuberculosis:—

Maria H., aged three years and six months, a child born of healthy parents in a family without consumptive history, was healthy up to the second week in October, when she had an attack of measles. After the disappearance of the eruption the cough continued, her abdomen began to get large, and she was noticed to be wasting. For a month her bowels were relaxed, but they afterwards became more regular. Her appetite, however, was poor, and after eating she often vomited the food she had just swallowed. All the time the child kept her bed; she was feverish, had a loose cough, and grew thinner and thinner.

On December 15, being still no better, she was brought to the East London Children's Hospital, and was admitted under Dr. Bruce. Temperature on evening of admission 102°.

Child was small-boned and rather delicate-looking, with small features. Expression anxious. Lips dry and red. Tongue pink and moist. Abdomen rather full; liver projected for about two inches below edge of ribs, and the spleen projected for about the same distance on the left side. There was some tension of the abdominal parietes, but tenderness was not marked, and nothing special was noted about the belly. Movement of chest in breathing normal, and intercostal spaces sank in. At the right base there was dulness, which reached upwards in front to the level of the nipple, and behind to within a finger's breadth of the angle of the scapula. Over the dull area the respiration was excessively weak and rather harsh. Elsewhere there was no dulness, but the respiration was very loud and coarse, and much clicking rhonchus was heard all over both sides of the chest. The dulness at the right base behind passed rather gradually into resonance above, without abrupt transition. For this reason, and also because the dulness reached upwards higher in front than behind, it was considered (and rightly, as the event proved) to be due to an enlarged liver.

After this report the child became gradually worse. The temperature remained high, varying from 101° to 103° in the evening. The pulse was quick, and the breathing hurried. The bowels continued rather loose, being open three, four, or more times in the day.

On December 19 the percussion note was found to be a little higher-pitched at the right supra-spinous fossa than at the left, and the breathing there was harsher. These signs became more marked after a few days, when dulness was noticed also above the right clavicle in front, and the respiration there and at the supra-spinous fossa became distinctly bronchial. On December 30 the physical signs about the chest remained the same, except that the clicking rhonchus previously noted had given place to a sibilant wheeze at the end of inspiration, and this was heard all over the chest, both at the back and at the front. The general symptoms all this time were little altered. The child was weaker and thinner, and was very fretful, but she took her food well, and the looseness of the bowels had subsided; temperature at 8 a.m. 100°, 6 p.m. 103°.

After this date the emaciation proceeded more rapidly. The cough got more troublesome and hacking. The bowels were opened frequently, but the motions were very small, and were not loose.

On January 6 a crisp medium-sized bubbling rhonchus was heard all over the chest both at the back and at the front, but it was nowhere very copious. The percussion-note at each apex was high-pitched, with harsh or slightly bronchial breathing. The abdomen had now become much distended and was tympanitic; its superficial veins were enlarged. The child was very weak, and slept with eyes half open. The appetite failed, and she was very peevish. There was no squint, inequality of pupils, or other cerebral symptom; nor was there any œdema of the legs or feet. Temperature at 8 a.m. 100·6°, 6 p.m. 103·4°; pulse 148, respirations 48. Death took place on January 9.

On examination of the body on January 10, both lungs at their lower part were found to be attached by very slight adhesions to the diaphragm. The adhesions could be separated with perfect ease, and there was no fluid in the pleura. Both lungs contained numerous grey granulations underneath the pleura, and also scattered through the substance of the organs. They crepitated less perfectly than natural, and large quantities of bloody serum escaped on pressure. Small patches of lobular collapse were seen here and there upon the surface. Both lungs contained also a few small caseous nodules of about the size of a pea; and in the apex of the right lung was a larger patch of catarrhal pneumonia, which was undergoing caseous degeneration.

On opening the abdomen the peritoneum was found to be covered by a thick layer of cheesy lymph, which penetrated between the coils of intestine, matting them together and glueing the upper surfaces of the liver and stomach to the diaphragm. A small quantity of thick purulent-looking fluid was found in the abdominal cavity. Some yellow tubercles were seen underneath the peritoneum. The intestine was so matted into a confused mass that it could not be laid open. The liver was large, weighing fifteen ounces, and felt firmer than natural. Its section was not stained with iodine.

There are two sequelæ of measles so commonly met with that they must be within the experience of all who have any familiarity with the diseases of children. One of these sequelæ is catarrhal pneumonia; the other acute tuberculosis. A persistent high temperature following an attack of measles usually indicates the presence of one or the other of these disorders. On examination of the child whose case has just been related it was seen that the disease could not be catarrhal pneumonia; for had it been so, a history which comprised two months of fever and cough following measles would have entitled us to expect some considerable evidence of lung consolidation. As it was, the only signs discoverable were those of bronchitis. This bronchitis was evidently of considerable duration, for the cough was stated by the mother to have been present ever since the attack of measles, and no history of any more recent lung affection was hinted at. Bronchitis of such standing, combined, too, with a high temperature, could not be the result merely of severe pulmonary catarrh, but was evidently dependent upon some other cause; and this other cause, there could be little doubt, was tuberculosis. All the other symptoms pointed to the same conclusion. Obstinate fever, wasting, cough, and digestive disturbance, lasting for two months, and without evidence of lung consolidation, could only be due to acute tuberculosis.

The existence of peritonitis was not recognised during life; for, with the exception of some slight swelling of the abdomen, which was attributed to the flatulent distension so common in weakly children, there were no symptoms to draw attention to this part of the body. If on this account alone, the case is an interesting one, as showing with how few symptoms so serious a disorganisation may be associated. Had the peritonitis been recognised, it would have furnished additional evidence as to the nature of the disease.

In this case the tubercular outbreak must be attributed directly to the measles by which it had been preceded, for the child had been healthy before the attack, and there was no history of consumptive tendencies in the family.

(To be continued.)

THE PARIS ASSISTANCE PUBLIQUE FOR 1874.—According to the Budget presented to the Préfet de la Seine, the sum proposed to be expended in 1874 amounts to 28,150,000 fr. With this, 20,161 beds are to be provided for the aged and infirm, patients in hospitals, and lunatics. Altogether, it is calculated that 338,200 individuals will, in consequence of misfortune or suffering, come under the cognisance of the Assistance during this year.—*Gazette Médicale*, April 25.

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ORIGINAL COMMUNICATIONS.

NOTES OF A CASE OF

HEMIPLEGIA FROM SOFTENING OF THE BRAIN AFTER LIGATURE OF THE EXTERNAL AND INTERNAL CAROTIDS,

WITH GENERAL REMARKS ON THE SUBJECT.

By JAMES RUSSELL, M.D., F.R.C.P.,
Physician to the Birmingham General Hospital.

(*Continued from page* 447.)

The congestion in the smaller vessels of the brain after ligature of the carotid, and in a more marked degree after obliteration of the carotid within the cranium, opens a subject of varied interest. M. Richet refuses to accept the theory of cerebral anæmia formulated by Dr. Ehrmann as applicable to "those grave accidents which appear many hours after the operation in individuals who had not previously experienced any appreciable trouble, or at most some slight and fugitive derangement of the functions of the brain"; and much more does he reject this proposed explanation in the case of those phenomena which present themselves at a still later period. Having given an exposition of experiments which illustrate the function of the vaso-motor nerves, and the influence of these nerves in producing inflammation, he comes to the conclusion that loss of power in the vaso-motor system of the internal carotid is the chief cause of the morbid changes noticed in the cases which he thus distinguishes, such changes passing through the stages of paralysis and dilatation of vessels, of ecchymosis and capillary apoplexy (in certain cases), and finally of true softening ("Dictionnaire," p. 411).

Whilst fully admitting the importance of the considerations advanced by M. Richet, there are difficulties in fully accepting his theory. If injury to the vaso-motor nerves of the carotid be so powerful an agent in producing cerebral disorganisation, it seems strange that 60 per cent. of the patients whose carotid has been tied escape altogether. M. Richet himself answers another objection taken from the absence of similar changes in the limb after the main arterial trunk has been tied, by referring to the peculiar delicacy of the tissue of the brain, which "far from supporting them (the capillaries), is supported by them, so that when they have lost their tonicity nothing opposes their passive dilatation, and as a consequence their rupture. Such is doubtless the reason why, of all organs, the brain is the most exposed to hæmorrhages called spontaneous."—(p. 412.) But it may be fairly replied that dilatation does take place in the small vessels of a limb under the circumstances supposed, and is the cause of the elevated temperature which follows the application of the ligature, and also that inflammation is supposed to be produced in any part of the body through the agency of the vaso-motor system.

Further, it may be stated that MM. Brown-Séquard and C. Bernard show that section of the sympathetic mostly produces only increase in the local circulation and in calorification, without effecting change in the tissues. The congestion of the eye caused by section of the sympathetic has lasted for many months without being accompanied by inflammation, though inflammation developes itself more readily in parts so affected than it does in others. I may also refer to a remarkable case brought before the Medical and Chirurgical Society by Dr. W. Ogle, in 1869, in which there was every reason to believe that the sympathetic nerve had been divided in the neck by a deep-seated abscess; but although the consequences usually referred to section of that nerve had been present in the patient for two years, no nutritive change had taken place in the hyperæmic part.

That the congestions under consideration are not due, at least mainly, to division of the vaso-motor nerves, is shown by the fact that they are found still more characteristically in cases of pathological obstruction of the arteries. Thus, in a case of obstruction of the right internal carotid within the cranium, there was marked softening of the right hemisphere just above the corpus callosum; the optic thalamus was the seat of red softening, so as to make it bulge into the third ventricle; and the corpus striatum was more vascular than usual. In a case of obstruction of the right middle cerebral artery, the brain was œdematous, the subarachnoid fluid was much increased in quantity, and red patches of ecchymosis and a highly congested condition of the bloodvessels of the pia mater extended from each temple, along both the Sylvian fissures, increasing in intensity to the base; there were also pink stains in the tissue of the corpus striatum.

These and other cases answer to the description by Prévost and Cotard of cases of "ramollissement par oblitération artérielle constatée." The hemisphere sinks on itself, even sometimes has a semifluctuation; the convolutions are depressed, and the sulci less marked. The softened portions generally present the aspect of a diffluent pulp, easily washed away, and constantly presenting a rosy, even a vinous colour, as if ecchymosed and spotted with capillary apoplexy (p. 45). They proceed immediately after to notice the analogy between this "coloration rouge répandue" in cerebral softening, and the similar colour which exists in cases of infarct of various viscera produced by artificial obstruction to the arterial trunks. This congested condition, they affirm, belongs to recent cases, though they accept as a fact, contrary to the opinion of authors, that white softening also may exist in exceptional instances as an alteration of recent origin.

These observers take the infarcts which occur in the kidney after obliteration of the renal artery as the type of the congestions in question; and whilst discussing their origin they look at them in two different points of view—as being vital (inflammatory) in their character, depending on vaso-motor influences; and as being the effect of the operation of merely mechanical laws.

They point out that by the laws of mechanics the pressure on the interior by an obliterated artery increases in approaching the point of obliteration; at this point a collateral fluxion must occur in the smaller branches which takes their origin in the neighbourhood of the obliteration. But then they ask, is this fluxion sufficiently powerful to account for the intense congestion observed *around the infarct?* To this question they make an uncertain reply. As regards vital action, they refer to two of their own experiments (vi., lx.), in which the vascular congestion which followed obliteration of an artery by internal obstruction had proceeded to the formation of pus, thus far giving support to M. Richet's hypothesis.(a) They deem themselves authorised to conclude "that each of these theories is applicable to a certain number of facts; and believe that the mechanical theory may explain the congestion which is established at the outset, and disappears when the collateral channels are sufficiently dilated." They have, however, no hypothesis to offer in explanation of the congestion in the *heart of the infarct*, but are disposed to accept the opinion of Lancereaux, which attributes the congestions and the capillary ruptures to a change in the tissue.

M. Bouchard ("Pathology of Cerebral Hæmorrhage," translated by Dr. Maclagan, p. 14), after traversing the same ground, arrives at no more satisfactory conclusion as to the mode in which these congestion are produced, especially as concerns the hyperæmia and the hæmorrhage, which are so frequently found in the substance of a part to which the branches of the obliterated trunk are distributed.

A writer in the *Lancet* (vol. ii. 1871, p. 789) quotes some observations by Brown-Séquard in reference to the congestions that occur after ligature of arteries. They are analogous, he observes, to the elevation of temperature often observed after ligature of the principal trunk of a limb. He believes that the ligature (in the case of a limb) paralyses the vaso-motor nerves, and that, as a consequence, the blood of the collateral vessels, finding a passage widely open for it in the paralysed vessels, flows thither, and thus produces both congestion and elevation of temperature. On the contrary, he continues, when *all the arteries* distributed to a definite region—*e.g.*, to the kidney—are tied, venous reflex, which is prevented in the former case by the collateral circulation, must now take place, in consequence of the blood throughout the body being subject through life to a considerable amount of pressure. "In either case," continues the writer of the article, "it may well happen that the quantity of blood passing in a given time into the congested part being less, whilst the vessels themselves are dilated, and consequently capable of containing more blood, this has time to become surcharged with carbonic acid, and thus we have one cause, at least, of the convulsions and other nervous troubles which are sometimes observed almost immediately after the ligature of one of the primitive carotids in man."

(a) This part of the inquiry connects itself with the subject of secondary abscess in pyæmia through the medium of capillary embolism. (*Vide* a paper by Mr. Savory, "On the Local Effects of Blood-poisoning in relation to Embolism," *St. Bartholomew's Hospital Reports*, vol. i.)

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The writer just quoted thus refers the *immediate* effect of the ligature to the congestions of which I am writing. It appears, however, that the subject is still involved in much uncertainty, and that doubts may well be entertained whether the vascular changes are the efficient causes of the more severe changes in the tissue of the brain observed after the operation to which my present remarks have had reference.

I have noticed that there are several cases, among those wherein nervous accidents come on quickly after the operation, which, from the severity of the symptoms and the rapidity with which they take place, suggest that some very peculiar condition either of the brain or of its circulatory apparatus must have been present to determine the occurrence of the accidents in question. To such cases Dr. Ehrmann's explanation might apply. He suggests that certain of the trunks which compose the circle of Willis may be preternaturally narrow, and he applies this statement most particularly to the posterior communicating artery, entering into some interesting anatomical details to prove that the last-mentioned vessel is subject to special variations of calibre (p. 77). He quotes a case in which the artery in question was actually found preternaturally small; and it will be remembered that the same abnormity was present in my case. It is to the generalisation attempted by Dr. Ehrmann's in the application of this hypothesis that M. Richet specially objects, alleging, as it appears with great truth, that the state of anæmia which is supposed to be produced in the brain by ligature of the carotid, when this abnormity exists, must be produced *at once*, and hence that the explanation could only apply to cases in which the symptoms follow the operation immediately; even in such cases, he asserts (as it seems to me with less force) that the anæmia which may result must affect the entire brain, and not be limited to a single hemisphere. This remark at any rate would not apply to the coagulation of the blood which had taken place in the patient whose case has been the occasion of these remarks.

I have already suggested that it is probable that more circumstances than are included within the limits of either theory are concerned in producing the effects I have been discussing, and I think that the cases I have quoted afford support to this opinion.

CASES OF ENDOCARDITIS PROVING FATAL WITH SYMPTOMS OF BLOOD-POISONING.

By EDWARD B. GRAY, M.D.,
Physician to the Radcliffe Infirmary.

Case 1.—*Rapid Development of Heart Disease, with High Temperature, in a Weakly Boy—Death, with Typhoid Symptoms—Autopsy: Endocarditis, with extensive Ulceration of Valves.*

Thomas F., aged 15, a thin, sickly-looking boy, came under my care into the Radcliffe Infirmary, on December 10, 1873, complaining of short breath, præcordial pain, and constant headache, chiefly on the right side. There was moderate hypertrophy of the left heart, with thrilling impulse, and loud double murmur, both at base and apex. Lungs clear. Liver enlarged and tender. No dropsy. No albumen in urine. No articular pain. He had been disabled from work only a month. Previous to that, although always weakly and delicate, he had never definitely ailed, and had held a situation as helper at an hotel. His parents, intelligent people, positively denied his ever having had rheumatism, chorea, or other disease likely to leave heart mischief behind it.

Rest in bed, with diuretics and gentle aperients, did not amend his condition. Ten days after admission he began to get feverish, and generally worse. For the next week the cardiac distress steadily increased, the murmurs remaining unchanged; the daily pulse 130 to 140, soft, full, and bounding; the temperature 101° to 103° Fahr.; stomach irritable; tongue dry; no articular pains. The symptoms, in fact, might be described generally as "typhoid," but without diarrhœa, rose-spots, pulmonary, or other visceral complication (except the cardiac). He died December 28, evidently more from these pyrexial symptoms than from any mechanical effects of the valvular disease.

The autopsy showed a little very recent soft lymph in pericardium; left cavities much hypertrophied; commencing atheroma of first portion of aorta; all three aortic valves in great part ulcerated away, the remnants of the flaps much thickened, and their free edges studded with small loosely-adherent vegetations. Mitral valve much thickened, and one of its segments completely ulcerated through in two places, the edges of the perforations being fringed with warty vegetations. The cornæ columnæ and muscular bands of ventricles much mottled with pale patches, suspected (though not proved by microscopical examination) to be due to fatty degeneration. Both lungs clear. Liver and kidneys much congested; no infarctions in the latter. Spleen unfortunately not examined, nor the brain.

Remarks.—The occurrence of atheroma at so early an age is noteworthy. The sequence of events in this case seems to have been as follows:—First atheroma of valves; then ulceration, with deposit of fibrine on their roughened edges; then contamination of blood with detritus from the ulcerating valves, accounting for the pyrexia and typhoid symptoms. A strikingly similar case is recorded by my colleague, Dr. Tuckwell, in the *Pathological Society's Transactions*, vol. xx., p. 155.

Case 2.—*History of Long Depressed Health and Defective Nutrition in a Woman free from Discoverable Organic Disease—Sudden supervention of Vomiting and Diarrhœa with Endocarditis and High Temperature—Death after some days of Noisy Delirium with General Typhoid Symptoms.*

In August, 1873, a tradesman's wife, aged about 32, married some years, but never pregnant, consulted me for palpitation and anæmia, with great loss of appetite and impaired digestion. There was a history of many years of generally enfeebled health, with intermitting leucorrhœa and painful menstruation. She had no pelvic or lumbar pain, no ulceration of the os uteri, nor any uterine disease or displacement that I could discover. No cough or night-sweats. Careful examination could find nothing amiss in heart or lungs. There was even an absence of the basic murmur so commonly heard in these cases of anæmia. She had never had rheumatism nor any febrile disease. Temperature normal. Urine free from albumen. Digestive tonics and steel in various forms with astringent injections had been perseveringly tried before she came to me, but without benefit.

For the next six weeks, in spite of the best I could do for her, she became gradually paler and weaker, eating scarcely any food; but no fresh symptoms arose till about October 7, when I found her sweating profusely, with hot skin, frequent spontaneous vomiting, and diarrhœa. Her complexion had the peculiar sallow, earthy look which one sees in pyæmia. Auscultation now revealed a loud systolic murmur at base and apex of heart. A week later the gastro-intestinal disturbance had all gone, but the febrile symptoms continued, and were gradually assuming a typhoid type. In a few days she had dry brown tongue, restless noisy delirium, sloughing of skin over sacrum. On November 1 she died. From first to last there was no articular pain or swelling; no tympanites, nor abdominal tenderness, nor rose spots or other eruption. The diarrhœa had ceased long before death; the stools throughout were simply loose, not wanting in bile, never slimy or powdery. In a word, the sole discoverable disease behind the general symptoms was the heart mischief, and this seemed limited to the valves; no pericardial friction was ever audible.

Remarks.—No autopsy could be obtained in this case, and in its absence the pathology of the disease is open to doubt. The only explanation which seems to me to fit all the facts of the case is this: that the endocarditis was caused simply by a deteriorated state of the blood from prolonged malnutrition, and that the typhoid symptoms arose from septicæmia, the circulation being poisoned by the *débris* washed off from inflamed or ulcerating valves.

Case 3.—*First Attack of Rheumatic Fever, with Endocarditis—Sudden Recession of Pains, followed by Severe Vomiting for several Hours—Return of Pains, with Typhus-like Rash, Profuse Sweating, Sallow Skin, Noisy Delirium, and Fatal Prostration.*

On March 17, 1870, a single lady, aged about 38, always thin, dyspeptic, and muddy-complexioned, had what seemed to be slight rheumatic pains in various parts. After prescribing, I saw no more of her till March 26, when I found her in high fever, with sour sweating, both ankles and one wrist swollen and painful, and a systolic murmur at base of heart. Next day the pains suddenly subsided; vomiting set in and continued most obstinately for about twelve hours. On the 28th, stomach quiet; return of pains in joints; and an abundant dusky rubeoloid rash coming out over trunk and arms. On the 30th the

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articular pains gone; murmur only faintly audible; rash all over body, livid and petechial, just like a bad case of typhus fever; drenching sweats; complexion sallow (perhaps faintly icteric)—in fact, signs of profound blood-poisoning. From this time till her death on April 5 there was intermitting delirium, dry brown tongue, and progressive engorgement of the posterior lungs. The heart-sounds meanwhile were muffled, but the murmur was no longer audible. Throughout the illness I could never hear any pericardial rub. She never had any diarrhœa. No autopsy was allowed.

Remarks.—This case, after the subsidence of the rheumatic pains, became so like one of typhus fever in respect of the eruption and general symptoms, that I took much pains to inquire into the possibility of her having caught the latter disease. Without entering into details I will only say that there was the strongest possible evidence to the contrary. In the absence of anything to justify a suspicion of typhus or typhoid fever, I can only conceive the following interpretation of the case—viz., that during the course of rheumatic fever in a cachectic person endocarditis supervenes; that fibrin of low vitality, and probably prone to septic change, is first deposited on the valves and thence washed off into the blood-current, thus poisoning the circulation at the fountain-head, and giving rise to typhoid symptoms. The vomiting and severe constitutional disturbance of March 27 probably mark the date at which the poison began to find its way into the circulation (at any rate in injurious quantity), while the blocking of the skin capillaries with particles of fibrin would explain the general petechial eruption.

Case 4.—Occasional Giddiness and Vomiting occurring in a Person with a History of previous Health—Delirium and Typhoid Symptoms after the Third Day—Death on the Sixth Day—Autopsy: Recent Vegetations on Mitral Valve; Large Spleen; Ecchymoses in Stomach and Colon; Softening of certain portions of Brain-Substance.

John S., aged 21, a fine muscular man, driver of a traction-engine, came into Radcliffe Infirmary under my care on March 26 ult., in a state of restless delirium with high fever, flushed face, and dry brown tongue. Without discoverable mischief in any one organ, but merely with symptoms of general and profound febrile disturbance, he became rapidly prostrated, and died on March 28, his temperature on that day being 105°. There was no diarrhœa nor rose-spots; no pneumonia; no strabismus; no spasm or paralysis of any facial or other muscle. There was no evidence of pain, and certainly no swelling or redness of any joint. The only time I listened to his heart, the morning after admission, I noted a want of clearness in the sounds, but could detect no murmur. His urine was plentiful, but, being passed involuntarily, could not be saved for examination. His skin was everywhere sound, except a small abrasion—scabbed over—on one shin.

The patient himself was never sensible enough to tell us anything of his history, but from inquiry of his mother and a brother who had been with him daily up to the date of his first ailing, it seemed quite clear that up to March 22 he had been in his usual hearty health, but on that and the two following days he complained of feeling queer in his head, and sometimes staggered a little in walking, and on two or three occasions had spontaneous vomiting. On the morning of the 26th, to use his brother's words, he "went clean off his head" and became unmanageable—hence his removal to the Infirmary. By all accounts he had been a most steady, temperate man, and had never had rheumatism.

Autopsy, about eighteen hours after Death.—Heart of normal size; pericardium healthy. Edge of mitral valve all along its auricular surface fringed with little pink warty vegetations, most of them loosely adherent, some so loosely as to easily wash off in a strong current of water. Other valves healthy. No atheroma or ulceration either under the vegetations or elsewhere in the endocardium. Lungs: Both much congested posteriorly, but otherwise healthy. Liver normal. Spleen of normal consistence, but large (weight one pound). Kidneys healthy. No traces of emboli either in spleen or kidneys. Stomach here and there showed patches of intense congestion, some amounting to actual extravasations. Small intestines down to ileo-cæcal valve quite healthy; no enlargement of mesenteric glands. Mucous membrane of lower two feet or so of colon thickly beset with small vascular spots, each having a white speck in its centre. These spots did not correspond to the solitary glands. Brain: Great fulness of vessels of pia mater; the two crura cerebri and contiguous portions of both posterior cerebral lobes much softer than other portions of the brain—in fact, quite diffluent. A plug was found in one artery at the base; but whether this artery supplied blood to the softened parts, and whether the plug itself was an embolus or a mere blood-coagulum formed *in situ*, I was unable to determine.

Remarks.—1. The explanation of this case seems to be, that fibrin, from some cause or other separated from the blood, became deposited on one of the valves, and being washed off thence back into the circulation (for the most part probably in a finely molecular state), caused fatal blood-poisoning. Whether the slight wound on the leg was the first link in the chain of events, is of course a question; but the absence of any sign of irritation of the wound or of inflammation of the neighbouring lymphatics seems adverse to such a view. The softening of parts of the brain and the peculiar appearances on the mucous membrane of the colon were most likely due, the one to arterial, the other to capillary, embolism. 2. The correspondence, amounting to actual identity, of the post-mortem appearances in this case with those recorded in certain fatal cases of chorea is very suggestive. The suspicion arises that the two diseases, so closely resembling each other in the more important symptoms during life, and in all the morbid appearances (to the naked eye, at least) after death, are likely to own the same ultimate pathological explanation—viz., excess of fibrin in (?), deposit of fibrin from, and re-entry of the deposited fibrin into, the blood. 3. The name "ulcerative endocarditis," as given indiscriminately to cases of this sort, is obviously open to objection, for in some, as in this, there is no ulceration at all, and the disease kills from contamination of the blood, not with pus, but with disintegrated fibrin.

REPORTS OF HOSPITAL PRACTICE IN MEDICINE AND SURGERY.

ST. THOMAS'S HOSPITAL.

INTESTINAL OBSTRUCTION FROM LARGE TUMOUR OF THE PELVIS—ENTEROTOMY—RELIEF.

(Under the care of Mr. WAGSTAFFE.)

THE following case is of interest as showing the value of manual examination by the rectum, and as being one of those in which operative interference has been followed by good results. Enterotomy after Littré's method is rare in this country, and is not often preferable to colotomy.

A delicate-looking woman, unmarried, and about thirty years of age, was admitted into St. Thomas's Hospital on March 31, with symptoms of intestinal obstruction. She stated that about three years ago she had had stoppage of the bowels for a week, but this was relieved by medicine. Since then she had never been troubled.

For some months past she had been out of health, with occasional pain in the right side, but rather suffering from debility than anything else. On March 17, or fourteen days before admission, her bowels were last open, and slightly relaxed. Since that time she had had constant sickness, and the abdomen had become more and more distended. She had taken little or no food, and the character of the vomit was only bilious, not fæcal.

When examined thoroughly, the abdomen was found to be hard and somewhat distended with gas, and only the right iliac fossa was dull on percussion. A finger in the rectum or vagina could detect a hard mass pressing against the anterior wall of the vagina, but whether it was only hardened fæces in some coil above, or a new growth, and how attached, could not be determined. The patient was therefore put under chloroform, and the hand passed into the rectum. A mass was then found, hard as bone, projecting in front of and above the vagina, but not apparently pressing much on the bladder, arising evidently from the left sacro-iliac synchondrosis, where the pedicle could be felt to be about an inch and a half broad by about one inch deep. It was not movable, but resembled bone in its hardness. It stretched across the pelvis in front of the uterus, and when the hand was carried above the neck of the growth the anterior wall of the rectum or sigmoid flexure could be felt to present an irregular nodular elastic character, the nodules being projections backwards from the pelvic tumour and involving the intestinal wall. The intestine was empty

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in this position and for some distance above this point, so that it became evident from this examination that the obstruction was not in the rectum. It would, therefore, be unsafe to open the colon, for the obstruction might be in some coil of small intestine, instead of sigmoid flexure. There was no lateral displacement of the pelvic viscera, and no glandular enlargement in the groin. There was no history of bleeding or discharge from the rectum or uterus, and nothing to point to extra-uterine fœtation. There had been no interference with the passage of urine, which was normal in quantity.

Enemata had been administered, and on April 2 a large enema of oil, followed by gruel, was injected into the bowel by means of an O'Beirne's tube, but without any relief to the patient's symptoms.

April 3.—Ether was administered, and Mr. Wagstaffe again examined by the rectum, but found only his previous diagnosis confirmed. He therefore made an incision in the right groin parallel with Poupart's ligament, and about one inch above it, commencing opposite the anterior superior spine, and extending downwards and inwards for about two inches and a half. The muscular layers were divided upon a director, and the transversalis fascia similarly incised. The peritoneum was then raised, and opened upon the point of the forceps, further divided, and a piece of distended intestine exposed. This was transfixed, as it was evidently very full, and sutured to the walls of the wound. A small opening was made into the gut, and immediately a copious evacuation of fæces followed. This continued gradually during the rest of the day until about five pints had escaped. Vomiting and distress ceased from the time of operation. Mr. Wagstaffe stated that he preferred to make a small opening, about half an inch long, into the gut, because of the tendency which exists in all cases of artificial anus to prolapse. 8 p.m.: Tongue clean. Pulse improved. No sickness. In no pain. Sleeping comfortably.

5th.—She remains weak, but she is comfortable. During the day there has been rather less fæcal discharge from the wound.

8th.—Much relief after a free motion from the wound.

10th.—Silver tube fitted in.

15th.—Still weak, but in no pain.

20th.—For the last three days she has been sick and with a high temperature and occasional chills, but no evidence could be found of any collection of pus. To-day she passed an excessively large motion from the rectum, and has been greatly relieved since.

21st.—Improved.

GUY'S HOSPITAL.

CASES UNDER THE CARE OF MR. BRYANT.

The two following cases illustrate the occurrence in children of syphilis inherited from the fathers—the mothers not being affected:—

Case 1.—Hereditary Syphilis—Variola in Mother—Escape of Child after Vaccination—Syphilitic Father; Mother free from Symptoms.

Mrs. C., aged 36, who was confined on December 22, 1867, brought her first child, aged seven months, to me at Guy's on July 18, with marked symptoms of hereditary syphilis, which had appeared one month after its birth. The child had been suckled during the whole period, although its mother had had small-pox of a rather severe type six weeks before her coming to me. The child was at that time vaccinated, and the pocks took well, no symptoms of variola showing themselves. The symptoms of syphilis soon disappeared under the use of grey powder. The mother had no symptoms of syphilis.

It was interesting in this case to find that the child, although the subject of hereditary syphilis, passed successfully through the operation of vaccination, the two distinct animal poisons showing themselves and existing at the same time. That the child escaped the small-pox, which its mother had suffered from, although suckling the whole period, is another point of great interest, it being fair to infer that the cause of its escape was its vaccination. The father of the child confessed to having had syphilis some years before marriage.

Case 2.—Hereditary Syphilis in Twin Children—Mother free from Symptoms; Poison inherited from the Father.

On March 10, 1867, twin children were brought to me, three months old, one of which was healthy; the other was the subject of marked symptoms of hereditary syphilis. The symptoms had appeared in the male child one month after birth with fissured anus, a general skin eruption and snuffles soon following.

In the female child the symptoms did not appear till it was three months old.

Both recovered under the use of grey powder and chalk twice a day.

The mother of the child was healthy in all respects; the father had had syphilis one year before marriage, but had not had any symptoms of the disease since.

How long the mother will remain free from symptoms of disease is an open question. Should her powers become more feeble, or should another conception occur, there is good reason to believe that symptoms will appear.

Chancre on Upper Lip—Syphilitic Eruption.

(Reported by Mr. Dickinson).

Mary A. B., aged 29, a married woman, was admitted into Guy's Hospital, under Mr. Bryant's care, on May 16, 1871, with a chancre on the upper lip, below left nostril. It appeared six weeks before as a pimple, and has gradually increased since. At present the chancre is the size of a sixpence, with raised edges, and a very indurated base. The glands beneath her jaw on the left side are indurated and inflamed, as are also those behind the sterno-mastoid muscle.

No history of contagion could be made out, beyond that she had been nursing a child that had been vaccinated and was covered with an eruption.

Mr. Bryant, having no doubt as to the syphilitic origin of the sore, ordered the suppositorium hydrargyri gr. v. to be used twice a day, with quinine mixture.

May 21.—A papular specific eruption has appeared over her face and body.

31st.—Chancre healing. Cervical glands less swollen.

June 2.—Slight sore throat appeared.

6th.—Gums slightly affected by the mercurial suppository. This is to be used only every night. Eruption fading; chancre healing.

9th.—Eruption has almost gone. Throat better.

14th.—Iritis appeared in right eye. Atropine drops ordered. Repeat suppository twice a day.

24th.—Eye rapidly recovered; chancre cured; eruption appears only as a stain.

July 5.—Left hospital well.

It might be added that Mr. Bryant has for some years been using mercury in the form of the suppository, and he finds it a far more satisfactory way of using the drug than by the mouth: it acts well upon the disease for which it may be prescribed, and in no way injuriously affects or disturbs the digestive apparatus.

MIDDLESEX HOSPITAL.

CASE OF PNEUMONIA—DELIRIUM TREMENS—RUPTURE OF THE RECTI MUSCLES—ATROPHY OF ONE KIDNEY, AND HYPERTROPHY OF THE OTHER.

(Under the care of Dr. HENRY THOMPSON.)

C. B., aged 40, a cellarman, was admitted March 12, 1874. According to his own statement, his illness began six days before admission with a rigor and pain referred to the right front of the chest. In spite of the opportunities afforded by his occupation, he denies drunkenness altogether, and he has no relations to verify or disprove his own account of himself: but his whole aspect and all his gestures are unmistakably those of a hard drinker. On admission, pulse 132, respirations 40, temperature 103·4°; chest imperfectly expanded; dulness in the right front; pupils small, nostrils quivering; tongue coated brown in the centre; face flushed; manner and movements nervous and agitated. In the evening the sputa were seen to be tenacious, frothy, and rust-coloured, and there was well-pronounced bronchial breathing heard over the right back from the spine to the angle of the scapula. Ordered a mixture containing carbonate of ammonia, acetate of ammonia, and tincture of squills, with a daily allowance of four ounces of brandy.

March 13.—Passed a restless and delirious night, and wanders even now. Dulness in right front from apex to third rib; impaired resonance over the right scapula; marked tubular breathing throughout the corresponding area; faint

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sonorous respiration in right supra-spinous fossa; everywhere else the signs of bronchitis and œdema of the lungs. Urine scanty. Patient now acknowledges that he has had several attacks of delirium from drunkenness. Four ounces of port wine were allowed in addition to the brandy, and fifteen grains of hydrate of chloral administered every six hours. 3 p.m.: Patient has just made a spring at the adjoining window; he charged straight at the perpendicular iron bar in front, and fell back with a crash on his bed. He was then removed to the delirium ward, where he became more composed, and took his food, which he had before obstinately refused. Urine passed in small amount, smoky, and loaded with albumen. Two ounces of blood were withdrawn from the loins by cupping.

14th.—Spent a restless night. About two ounces of urine were collected separately from the motions, presenting under the microscope coarsely granular pigmented blood-casts and free blood-corpuscles in abundance. Chloral draught to be repeated every four hours, with the addition of ten minims of spirit of ether. Abdomen and loins to be fomented with infusion of digitalis of treble Pharmacopœia strength. In the evening the pulse flagged; the expectoration disappeared; the patient had a fit of dyspnœa with lividity, and rattling was heard in the throat. Ordered a mixture, containing spirit of ammonia, spirit of ether, and syrup of tolu, every two hours.

15th.—2.30 p.m.: The breathing became suddenly worse, and after a brief struggle ceased altogether.

Autopsy (abridged from the report of Mr. Sidney Coupland).—On cutting into the abdominal wall the lower third of the sheath of each rectus muscle was found to be full of extravasated blood partly coagulated, and each muscle was seen to be torn completely across at its point of narrowing about two inches above the tendon. At the seat of rupture the whole thickness of the muscle presented an appearance of extreme degeneration. It was exceedingly firm on section, and of a pale yellow, opaque, faintly granular aspect. The degeneration extended for some inches upwards, and was gradually replaced by healthy-looking fibres. Under the microscope the degraded fibres appeared to be much swollen and wholly converted into irregular masses of highly refractive material, presenting, in fact, the characteristic features of the so-called waxy or vitreous degeneration of muscle in its most advanced stages. Other fibres less advanced in degeneration exhibited a granular aspect in place of the normal striation. None of the muscles of the thigh were affected. The muscular walls of the heart on both sides were thicker than natural; the valves normal. A few old adhesions existed at the apex of the right lung, and some recent readily detached adhesions over the whole of the upper lobe, which was covered by a thin false membrane. The apex was occupied by a mass of fibrous tissue forming a dense reticulation, while the rest of the lobe was thoroughly hepatised, presenting on section a pinkish-grey finely granular surface. The middle lobe was also hepatised; the lower lobe compressed, non-crepitant, much congested, and tough, although floating in water. The upper lobe of the left lung was highly œdematous, the lower lobe much engorged throughout, and the whole organ non-crepitant. The right kidney was reduced to a congeries of cysts of the size of large grapes, the whole forming a mass no bigger than a racquet-ball. The cysts contained a clear amber-coloured fluid; they were lined by a dense opaque fibrous membrane, and communicated freely with one another. A small nodule of unaltered renal tissue existed at the upper part of the mass. The ureter was entirely obliterated, remaining only as a fibrous cord of the thickness of a goose-quill. The left kidney was notably hypertrophied, measuring five inches and a half by two and a half. Capsule non-adherent; surface smooth; substance unusually soft and flaccid; on section slightly paler than natural. Cortex in bulk apparently proportioned to medulla, but more opaque than normal. Microscopically, multitudes of blood-corpuscles were seen crowding the capillaries, and some of the tubes contained fibrinous exudation.

Remarks by Dr. Thompson.—The foregoing case presents many features of interest and importance. It may be sufficient to select three points for a few words of commentary. First, the case illustrates well the concurrence of pneumonia and delirium tremens—an association so common, that no physician of any experience, when dealing with a severe attack of delirium tremens, would ever omit to examine the chest for pneumonia. The relation would appear to be reciprocal: either of the factors in the combination may be the antecedent, and either may be the consequent. On the one hand, alcoholism, culminating in an outbreak of delirium, may develope pneumonia; on the other, a chance attack of pneumonia befalling an inveterate drunkard may upset altogether the unstable equilibrium of his nervous system, and give rise to delirium, just as an accidental injury or a surgical operation may. In the majority of instances apparently the delirium precedes and the pneumonia follows; in our case the order was reversed. Pneumonia, it is true, especially when it fastens upon the apex of the lung, may alone and unaided develope delirium, but that it was aided and abetted by drink in the present instance appeared to be incontestable in the judgment of all who witnessed the case. The second point is the hyperæmia of the kidney, the scanty secretion of urine, the hæmaturia, and the exudation within the uriniferous tubes. It is unnecessary to say how seriously the dangers of uræmia intensified the gravity of the prognosis and circumscribed the range of our remedies, especially in reference to the administration of opiates. The urinary disturbances are yet the more interesting, inasmuch as they all seem to have been the result of the malady itself, or the combination of maladies, and in no respect owing to any pre-existing disease in the kidney. Of course the atrophied organ is here put out of the reckoning altogether; it was reduced to an innocuous shell, and simply annulled—not diseased in the proper sense of the term. Neither could any enduring pathological change be discovered under the microscope in its hypertrophied fellow-organ. One fact, however, of some practical importance the microscope did reveal. Although the kidney presented no signs of increased vascularity to the naked eye, the capillaries of the cortex were found to be overloaded with blood corpuscles. The dwindling and sacculation of the right kidney must in all probability be ascribed to inflammation of the ureter consequent upon the passage of a calculus at some unknown date. The last point—the rupture of the recti muscles—is perhaps rather interesting than important. Clearly the exciting cause was the attempt to jump through the window, or the subsequent fall backwards; the predisposing cause, the waxy or vitreous degeneration of muscle described in the post-mortem records. A more picturesque name might be "glacier-like degeneration," the muscular masses under the microscope in the advanced stages looking exactly like blocks or hummocks of ice huddled together one upon another unconformably. Finally, as there were no pathological appearances found in the small intestine, we may fairly exclude enteric fever, and number our own case among the many examples of so-called "myositis typhosa" unconnected with the fever that gave origin to the name.

MR. ALDERMAN TYZACK, of Sunderland and Thirsk, has purchased a building at Monkwearmouth for the purpose of converting it into a dispensary for the poor of that, his native parish.

THE medical officers of the British Hospital for Diseases of the Skin in Great Marlborough-street have been lately inviting the practitioners of the neighbourhood to a series of demonstrations, the subject chosen being "The Syphilitic Diseases of the Skin." The out-patients' waiting-room, in which the demonstrations were given, was as well filled by practitioners as it ordinarily is by patients, between forty and fifty of the profession attending on each occasion. Various typical examples of syphilitic cutaneous disease, as well as of the diseases with which the syphilides are most apt to be confounded, were made vividly clear, even in their minutest details, to everyone present, very much in the shape they would be seen on looking at them through a camera lucida. This was effected by photographing the various eruptions on glass, the transparent photographs thus obtained being coloured from the life by a miniature-artist, in colours composed exclusively of transparent glazes. By placing these slides in a powerful oxyhydrogen lantern placed outside the room, their magnified image was received on a very large sheet of ground plate-glass, filling the entire space of a window-frame, the sash of which had been removed to admit it. By this contrivance the object was sufficiently enlarged to enable the various details of each eruption to be as plainly visible to the farthest as to the nearest persons in the room. As the various examples—amounting to some sixteen or seventeen in all—were exhibited, their distinctive features were pointed out and commented on by Mr. Balmanno Squire, one of the surgeons to the Hospital. At the conclusion a vote of thanks to the demonstrator was proposed by Mr. Henry Power, of St. Bartholomew's Hospital, and carried by acclamation.

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Medical Times and Gazette.

SATURDAY, MAY 2, 1874.

KING'S COLLEGE HOSPITAL AND THE ST. JOHN'S SISTERHOOD.

The referees in the quarrel between the King's College Hospital Committee and the nursing sisters of St. John's House have sent in their report, and on Saturday, May 2, the Court of Governors of King's College Hospital is summoned to meet for its consideration. In the beginning of their report, the referees, Lords Selborne and Hatherley, are careful to point out that they are referees merely, not arbitrators, and that their report and suggestions may be adopted or not at the discretion of the body of governors. They are equally careful, in conclusion, to say, "We do not doubt that under the influence of a fair, reasonable, and conciliatory spirit on both sides the connexion between the two institutions may be preserved to their common advantage; without this no good can be expected to follow either from our present recommendations or from any others which might be made." This is good advice, and seems to us the pith of the whole matter. If people are prepared to give and take, to live peaceably for the sake of peace, to work harmoniously for the good of the institution with which they are connected, all will go well; but when it comes to be a quarrel, more or less continuous, as to who is to have the upper hand, there can be no question but that the sooner the connexion between the two institutions is severed the better for all parties. The whole working of such institutions depends on the spirit of those concerned in carrying on the work. Sometimes, as has been known in the history of St. John's House, there have been indiscreet sisters, just as there have been indiscreet medical officers; and if those elements are brought in contact, there is great risk of an interruption of the general harmony; but as long as the great bulk of the Sisterhood are—as those who know them are well assured—eager for the welfare of the patients under their charge rather than for personal aggrandisement, they should be met in a generous spirit.

The following are the recommendations of the referees:—

"1. That a matron should be appointed (if possible upon the nomination or recommendation of St. John's House, as contemplated by the Agreement of 1856) to conduct all those departments of domestic economy within the Hospital, which can properly be placed under female superintendence; and if it should not be thought practical or convenient to revert, in this respect, to the principle of the Agreement of 1856, that the matron should, at all events, be a person on whose ability and disposition to co-operate cordially with the sister in charge and the nursing staff full reliance can be placed.

"2. That one of the resident medical officers of the Hospital should be a permanent officer, of such age and experience, and invested with such authority, as may tend to ensure for him the confidence and deference of the sister in charge, and also of the secretary and matron, and junior medical officers.

"3. That all suggestions and complaints to or by the sister in charge, as are contemplated by Articles 13, 14, and 16 of the Agreement of July, 1872, should be made as far as possible, and as a general rule by way of communication as soon as the matter arises, through or with the permanent resident medical officer.

"If for any reason these recommendations as to a permanent resident medical officer cannot be adopted, we should then advise—

"4. That, in every case of difference arising between the sister in charge and any of the authorities of the Hospital as to any matter deemed on either side to be of sufficient importance which may be raised by any suggestion or complaint as is contemplated by Article 13, 14, or 16 of the Agreement of July, 1872, the matter so in difference should be referred for investigation to one of the members of the Committee of the Hospital to be selected by them, and one of the Council of St. John's House, or (in case of their disagreement) to some third person to be named by the Council of King's College; and that the decision as to any such matter of such referees or umpire should be final."

With regard to the first of these—that a matron should be appointed,—it seems to us that undoubtedly some such official is wanted, whether called matron or housekeeper, and any person so appointed should certainly act in concert with the sisters; but whether such matron should be appointed on the recommendation of the Sisterhood is another question. One of the accusations brought against the system of nursing sisterhoods is, that they are very much more expensive than the ordinary system of nursing; and the appointing of a matron under their auspices might not tend to promote domestic economy. Certainly, at all events, the two sets of authorities ought to work hand in hand.

With regard to the appointment of a more or less permanent resident medical officer, we publish a letter from one who has a right to be heard. Whatever may be said, no one will doubt that Dr. L. Beale has the interests of the Hospital and School thoroughly at heart, and though we may not altogether agree with him, he certainly claims respectful attention. We question if it is at all times a good thing that a number of young men should be left for the greater part of the day and night to their own devices, without any head or authority over them; and no one can deny that the system which sometimes involves the possible sudden and complete change of all the resident staff is entirely disadvantageous. But each institution has a right to be left alone in the working of its own system, and if King's College people think they are better without a resident medical officer, they have a perfect right to remain so. We can only point to a rival hospital where such an appointment has been found in practice to work admirably—that is at University College Hospital.

The referees next say:—

"With respect to the question, whether the Committee of the Hospital ought to be made acquainted with the names of the nurses and sisters engaged from time to time in the nursing service within the Hospital, we think that the claim of the Committee to receive such information is well founded in reason and principle, and is not inconsistent with the direct responsibility of the sisters and nurses to St. John's House alone, or

otherwise calculated to endanger the proper subordination and discipline of the nursing staff. If, however, it should be preferable, in the opinion of the authorities of St. John's House, to identify each sister or nurse by a distinctive number, or by any name under which she is known in the establishment of St. John's House, rather than by her proper name, we think they should have the option to do so. We therefore recommend—

"5. That every sister or nurse, now engaged, or who may at any future time be engaged, in the nursing service of any ward in the Hospital, shall be designated by a name or distinctive number, to be communicated by the sister in charge to the Committee of Management or the secretary; the same name or distinctive number being used as often as any change is reported to the Committee of Management, under Article 10 of the Agreement of July, 1872.

"With respect to the claim of the Committee of Management to an absolute power of dismissal, with or without cause shown, over the sister in charge or nurses, we cannot regard it as necessary for the proper discharge of the duties of the Committee, or as consistent with the spirit and principle of either the original or the present Agreement between King's College Hospital and St. John's House. Our recommendations on this point are—

"6. That, if any request, made by the Committee of the Hospital to St. John's House, for the removal of any sister in charge or nurse, should not be complied with, it shall be competent for them to refer the question of such removal to the Council of King's College, and that it shall be imperative on the Council of St. John's House to remove the person objected to, if, in the opinion of the Council of King's College, there are sufficient reasons for such request.

"7. That the concurrence of a majority in number of the permanent medical officers of the Hospital, signified in writing, should (without any other cause shown) be deemed a sufficient reason for any such request.

"If these recommendations should be adopted, it will be necessary that the terms of the existing Agreement between the two institutions be revised, in order to secure their being properly carried into effect; but, beyond this, we do not recommend any alteration of that Agreement."

Entering on the subject of the relations of the sisters and nurses to the Committee is, we know, venturing on delicate ground. Nevertheless, the truth can, we think, be arrived at. If the Sisterhood contract to supply a sufficient number of nurses to attend to the patients of any charity, they become responsible for the proper nursing of the sick, but they cannot be made so if these attendants are liable to instant dismissal by the lay authorities. It seems to us that the utmost these latter could ask is that any attendant giving dissatisfaction should be promptly removed. Probably there is too little deference on the part of the sisters to the wishes of physicians and surgeons in moving about nurses from ward to ward, or in substituting less efficient for better trained nurses, without any reference to the opinions or prejudices of these gentlemen. But here, too, as in all the relations between the two sets of authorities, what is wanted is not more laws, but a more conciliatory spirit, and we are heartily glad to find in this matter that we are at one with Dr. Lionel Beale. It is clearly through the restoration of such a spirit that the way lies out of the deadlock between the two institutions.

THE DISCUSSION ON CANCER AT THE PATHOLOGICAL SOCIETY.

The limits within which Mr. De Morgan confined his opening address on cancer by restricting himself to the consideration of the question, "What are the relations of cancer to the organism, whether in its natural or its morbid condition?" were pretty strictly observed by those who took part in the debate.

It was not convenient, nor even desirable, that all the speakers should exclude entirely, as did Mr. De Morgan himself, any reference to the histological characters of cancer, and their points of likeness and of unlikeness to those of other tumours; for the labours of histologists, as well as the clinical observations of surgeons and physicians, have thrown light upon the nature and origin, and supply arguments as to the mode of diffusion, of cancer.

The subject of the treatment of cancer, except in so far as the results of treatment serve to illustrate the nature of the disease, was as rigidly omitted from the discussion as it was from the opening address. But a river may puzzle navigators quite as much on account of its zig-zag and irregular course as from the destruction of its boundaries by the overflow of its banks: so may confusion arise in a debate if speakers, while keeping to the question of dispute, use the same words with various meanings, as well as if they drift away from it into arguments altogether irrelevant. Both these errors deteriorated the recent discussion on pyæmia at the Clinical Society. The former alone rendered the debate on cancer defective; and it would be at once an instructive and welcome result if someone capable of the task would give the profession an exhaustive and critical review of this debate, setting forth at the same time the diversities and divergences in the meanings attached to some of the words employed.

It is not our intention to attempt this, nor even to point out the want of agreement in the use of such words as "local," "cancer," "malignant." One term, however, the signification of which strikes at the root of the whole question, is "constitutional," and upon this we must remark that though in the address it is defined, as were all the special terms used by Mr. De Morgan, yet the meaning attached to it is one which is much more clearly conveyed by some such term as "general," "all-pervading," "systemic."

Mr. De Morgan admits that "the constitution is the man—all that gives him his individuality. In that sense, what we should in ordinary language call a purely local affection is really constitutional—a common lipoma, for example." But in determining the points of contact and divergence between cancer and other tumours with regard to their origin or nature, the word used in this sense has no distinctive meaning, because it implies only a character common to cancer and lipoma, and is in no sense the antithesis to local. But, says Mr. De Morgan, "what is meant here is an all-pervading condition, which will sooner or later find its local expression in altered nutrition, in new growth, etc., which will, in their turn, be evidences of the constitutional state." So that, in the use of the term, we have this to remember,—that one thing may be "generally," "all-pervadingly," or "systemically" constitutional, and another "locally" constitutional; further, that the "general" constitutional condition may, by an alteration in the nutritive processes of a part, or by new growth, find its expression in that part. Here is a trap for the unwary. As Dr. Moxon pointed out, the term "generalism" is much more strikingly expressive of the theory of those who oppose the local origin of cancer than "constitutionalism"; and the incompatibility of the two theories is much less likely to escape notice when put into this form—"Does the first cancer that appears in the patient's body generate the cancers which appear afterwards; or, on the other hand, is there a general state of the whole system which is ready to put out cancer anywhere?" Mr. De Morgan's words, quoted above, clearly imply exactly the same questions as Dr. Moxon thus asks.

It is evident enough that no one can at the same time entertain these two views respecting the origin of cancer. No one can answer "Yes" to the question, Is the origin of cancer ever both local and general? No one can say that we must admit both a local and a general element of cancer so far as concerns its origin. But substitute the word "constitutional" for "general," and confusion creeps in at once.

Again, the localist and generalist, by using this word "constitutional" as antithetical to "local," instead of appearing to start from exactly opposite points of a line, seem to meet in

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perfect agreement at the mid-point of a line, and then gradually to recede from each other to the opposite extremities of it. The one set assert that cancer is decidedly local in its origin, but that for the most part it occurs in persons who have a strong constitutional predisposition. The generalists consider that the whole history of cancers points to their constitutional origin,—and some say especially to their blood origin,—and yet admit that some cancers have purely a local origin. Sir James Paget, after quoting from Mr. De Morgan in support of the opinion that the life of cancer shows more than a mere local tissue-change, says—"For I could agree with him entirely that we must hold both a local and a constitutional element as a necessary condition in every or nearly every case of cancer that comes under our observation." But apply here the test question, Is cancer a local expression of a general, all pervading condition, or is it not? and the apparent agreement vanishes. What Mr. De Morgan means when he says "there are strong grounds for regarding cancer as something more than a local disease," and that the "constitutional disposition, whatever that may be, is often present," he fully explains; and he tells us that he means nothing more than he does when he applies the same or similar language to other local conditions, such as fatty tumours or sebaceous cysts. We understand, too, how he can consistently hold to the doctrine that in cancer the general system when affected becomes so through the first mass of cancer,—through the primary tumour,—while he maintains that in cancerous patients there is a "special disposition" to tissue-change. But what are we to understand when a local element is considered necessary by those who hold that there is pervading the whole system some property—some seed—from which the cancer-tumour springs? Is it that there must be a fitting nidus in some one or the other of the tissues or organs? Well, be it so, and the answer suffices for a large number of cases; but does it for all? We can see that the doctrine of the localists is sufficient to cover all cases; but not so that of the generalists or constitutionalists—and why? The constitutional disposition, in the sense of an "all-pervading condition resulting in local outgrowths of cancer," cannot explain the mode of origin of those very cases which add great weight to the arguments of the localists. We refer to the cases which Sir James Paget himself quoted, of cancers occurring in the scars of old burns, and others resulting from the perpetual irritation of a lip—cases admitted by Sir James to be such, that it is very hard to discern anything like a constitutional origin at all; which, standing alone, would cause cancer to be regarded completely as a local disease.

Here, then, the generalists must resort to one of two alternatives—(1) they must either admit that these cases are not cases of cancer at all (this Sir James Paget himself distinctly does not do, for he accepts Mr. De Morgan's definition of cancer, without, however, including in it rodent ulcer); or (2), they must include under the great group Cancer two minor groups—one having origin from a general condition, the other being purely local. Beyond every other objection, then, the theory of the generalists is insufficient, according to their own showing, to embrace all the cases they include under the term "cancer."

But it does more than this; it undermines at least one of the arguments used by the generalists themselves—namely, that introduced by Mr. Howard Marsh: that because cancer in some particular persons has appeared in a part very soon after an injury to that part, therefore there was in the systems of these persons an all-pervading seed of cancer which found in the injured tissues an appropriate soil in which to sprout and grow.

But why need we one explanation for those cases of cancer which quickly follow upon a severe injury, and another for those which slowly supervene upon slight but oft-repeated irritation? There is a stronger tendency in the tissues in the one case than in the other to become cancerous, no doubt; but this tendency—call it a "general tendency" if you will—is not the same thing as an all-pervading seed of cancer, which is ever ready to burst out in an injured part; otherwise, why do we not find it occurring in the injured parts of such cases as the one Mr. De Morgan alluded to in his reply? In that case the all-pervading seed of cancer might surely have found a fitting soil, for various kinds of tissues were involved in the compound fracture. Must there, then, be something special in the nature of the injury? It cannot be replied that the seed had all spent itself in the original seat of cancer, because this would be to have resort to an explanation for one case, the truth of which is negatived in nearly every other. It would be equivalent to saying that the cancerous dyscrasia is weakened by the local growth of a cancer-tumour; whereas we know that the cachexia increases in the advanced stages of the disease.

Such are some of the thoughts suggested by the recent debate, in which, as it seems to us, the localists have made out the best case, and occupy a far less difficult position than the generalists. The localists are compelled to regard separately the nature of the original formative stimulus, and to resort to the theory of migration or parasitism to explain the secondary growths; while the generalists must draw a distinction between the cancer dyscrasia or the "all-pervading tendency" to cancer, and the cachexia which precedes death from cancer.

For our own part, we are not sanguine enough to anticipate an early solution of this question; nor do we see that surgeons are practically much concerned in its solution, for until another remedy is discovered it will still be the duty of the surgeon and the interest of the sufferer to resort to the knife as the only real palliative of the pain and offensiveness of cancer, and that, too, whether the disease be proved to have a local or a general origin.

OUT-PATIENT RELIEF AT ST. GEORGE'S HOSPITAL.

When, if ever, the time shall come for writing the history of the Hospital Out-patient Reform Movement, the correspondence published in the *Times* of the 27th ult. will form a short but very interesting chapter of the record. It appears that in March last a memorial, "signed by sixty-one gentlemen, forty-three being neither governors nor contributors to the funds of the institution," was presented to the Weekly Board of St. George's Hospital, and that the memorial contained the following paragraph:—

"Owing to the numbers flocking to receive this gratuitous medical relief, and to the limited time at the disposal of the medical officers, it was found impossible that each case could be properly examined into and treated in the out-patient department of the Hospital. Something has lately been done towards remedying this. Only a certain number of new cases are now seen every morning, but this does not touch the root of the evil, while it superadds some new inconvenience."

The Board supposed, very naturally, that the statement was intended to apply especially to the state of things obtaining at their own Hospital, and finding that the memorial bore the signatures of Sir William Fergusson, Sir William Gull, and Sir James Paget, felt that great weight must inevitably be attached to the opinion of these gentlemen, and that a full and, if possible, satisfactory answer must be given to allegations, thus supported, against the out-patient arrangements at the Hospital. The memorial was therefore referred to the nine medical officers in charge of the out-patients for their consideration and report, and they returned an answer which must, we should suppose, be considered perfectly sufficient, and of which the following are the concluding paragraphs:—

"We beg leave to assure the Weekly Board that this number is neither an undue tax upon our powers, nor more

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than we require for the purposes of instructing students. We make it a rule personally and carefully to examine and prescribe for every case; and we never have occasion to devolve any of our proper responsibilities upon pupils or unqualified assistants, although the assistant-physicians and assistant-surgeons have the advantage of the aid of qualified officers recognised by the Board. The qualified officers make a preliminary examination of the applicants and select for admission those who most urgently require treatment, so that as far as possible the suggestion of the memorialists to exclude trivial ailments is already carried into effect.

"With regard to the 'root of the evil,' and to the inconveniences said to be superadded thereto, we can hardly speak without some precise information as to the meaning of the memorialists. We do not know what the 'evil' is, or what is its 'root,' and the nature of the alleged inconveniences has not been specified.

"We ourselves are not aware of their existence."

At the same time the Board applied to the three gentlemen above named, "to know on what personal experience of the mode in which out-patients are attended to at St. George's Hospital were founded the allegations contained in the paragraph" which we have quoted. The Hospital authorities have had the pleasure of publishing the replies of those gentlemen; and whether they are, or are not, quite satisfactory to the weekly Board, they are at any rate very interesting, and will probably be thought curiously characteristic of the writers. One of them returns the reply *pur et simple;* he is content just to say that the paragraph quoted is not "founded" on his personal experience. He had not put in practice at the out-patients' department of St. George's the famous "Casual's" mode of obtaining "personal experience," nor had he gained any there in any other capacity; and he did not think it necessary to speak of his own special experience at one of the largest hospitals, or of his large general professional experience, or of any of those facts which, while they gave such importance to his signature, are so well known that they "go without the saying." The second of the three signataries replied that he acted on a general professional experience of nearly half a century, and added a neat little touch about the "influential body of hospital governors" of the institution in question. While number three replied at considerable length. He surveyed hospitals—not, indeed, "from India to Peru," but at any rate from the south-east to the south-west of London, and broadly; and, though he had no "direct knowledge founded on personal observation of the management of the out-patient department of St. George's Hospital in particular," yet drawing—German-professor-like—we suppose a picture of out-patient departments from his inner consciousness, and from his experience "of the largest kind" at a large hospital years ago, he applied it to St. George's Hospital in the present day. The Weekly Board must, however, have been comforted to learn that, though he signed the memorial to the Board of St. George's Hospital, this gentleman did not intend "to endorse any reflection upon the management of St. George's Hospital in particular"; and to know that, when he shall learn that better methods of dealing with out-patients exist at St. George's than at other hospitals, he will withdraw his signature from the memorial.

We need not say that it is notorious that the evils specially spoken of in this famous memorial did for a long time universally prevail, to a greater or less extent, at all our hospitals; but it is equally well known that at many hospitals earnest efforts have been made to lessen or entirely remove them; and it is not improbable that some regret will be felt that men of great eminence and authority should have attached their names to the memorial in question without any personal knowledge of the existing out-patient arrangements at St. George's Hospital. But the authorities of that institution may reflect with satisfaction, and almost with gratitude, that this correspondence has drawn the attention of the public to the careful arrangements of their out-patient department with a force that could hardly have been obtained in any other way.

AMENDMENT OF THE APOTHECARIES ACT.

A Bill is now before Parliament for the Amendment of the Apothecaries Act, prepared and brought in by Sir John Lubbock, Dr. Lyon Playfair, and Mr. Plunket. The preamble states:

"Whereas, by the nineteenth section of 'The Medical Act, 1858,' it is enacted that any two or more of the colleges and bodies in the United Kingdom mentioned in Schedule A to the said Act may, with the sanction and under the directions of the General Council of Medical Education and Registration of the United Kingdom, constituted in pursuance of the provisions of the said Act, unite or co-operate in conducting the examinations required for qualifications to be registered under the said Act. And whereas by reason of certain provisions of the Act passed in the session of Parliament holden in the fifty-fifth year of the reign of his late Majesty King George the Third, intituled 'An Act for Better Regulating the Practice of Apothecaries in England and Wales' (hereinafter referred to as the Apothecaries Act), difficulty has been found to exist in the exercise by the Society of Apothecaries of London of the powers intended to be conferred on the said Society by the said nineteenth section and other sections of the Medical Act, 1858. And whereas it is expedient that all such difficulties should be removed, and that certain portions of the Apothecaries Act should be repealed, and that the said Society of Apothecaries should have full power to unite and co-operate with all or any of the said other colleges and bodies mentioned in the said Schedule A in conducting the said examinations. And whereas it is desirable that the Society of Apothecaries should possess the power of striking off from the list of their licentiates any person who shall be convicted in England or Ireland of any felony or misdemeanour, or in Scotland of any crime or offence, or shall after due inquiry be judged by the General Council to have been guilty of infamous conduct in any professional respect: Be it enacted," etc.

The Bill contains the following clauses:—

"1. This Act may be cited as 'The Apothecaries Act Amendment Act, 1874."

"2. The following provisions of the Apothecaries Act shall be and they are hereby repealed; that is to say,—(1) The whole of the fourth section of the said Act: (2) So much of the fifteenth section of the said Act as provides that no person shall be admitted to any examination for a certificate to practise as an apothecary unless he shall have served an apprenticeship of not less than five years to an apothecary.

"3. The master, wardens, and assistants for the time being of the said Society of Apothecaries may, for the purposes of the examination of apothecaries and assistants to apothecaries throughout England and Wales, choose and appoint any persons who shall be at the time of such appointment duly registered under the provisions of the Medical Act, 1858, and the master, wardens, and assistants for the time being may at their discretion from time to time remove or displace any such persons chosen and appointed as aforesaid, and appoint in their stead other persons who shall be at the time of such appointment persons duly registered under the provisions of the Medical Act, 1858.

"4. The said Society of Apothecaries may, with the sanction and under the directions of the said General Medical Council, unite and co-operate with any one or more of the colleges and bodies mentioned in Schedule A of 'The Medical Act, 1858,' in conducting the examinations required for qualifications to be registered under the said Act, notwithstanding that the examiners appointed with such sanction and under such directions as aforesaid for the purpose aforesaid, and constituting a conjoint examining board for such purpose, may be more or less than twelve in number, and notwithstanding that the fees to be fixed and payable by any person presenting himself for examination by such conjoint examining board appointed as aforesaid may exceed the sum of six guineas.

"5. It shall be lawful for the master, wardens, and assistants for the time being of the said Society of Apothecaries to strike off from the list of licentiates of the said Society the name of any person who shall be convicted in England or Ireland of

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any felony or misdemeanour, or in Scotland of any crime or offence, or who shall after due inquiry be judged by the General Council to have been guilty of infamous conduct in any professional respect, and the said Society shall forthwith signify to the General Council the name of the licentiate so struck off."

It will be seen by the clauses above quoted that the difficulties which have hitherto obtained, with respect to the Society of Apothecaries being a party to a conjoint scheme, will be removed. Certain omissions also with respect to the Medical Act of 1858 will be filled up. We do not see how any objection can be raised to what ought to be regarded as a wholesome and necessary measure. It is necessary, for the proper understanding of the proposed Act, to quote the 4th section of the Act of 1815:—

"That no person to be by the master, wardens, and assistants for the time being, chosen and appointed a member of the Court of Examiners, or to be by the master and wardens nominated and assigned to go and enter into any shop or shops for the purposes aforesaid within the city of London, the liberties or suburbs thereof, or within thirty miles of the same, shall be deemed to be properly qualified unless he shall be a member of the Society of Apothecaries aforesaid, of not less than ten years' standing; nor shall any person be deemed to be properly qualified to be nominated and assigned to go and enter into any shop or shops in any other part of England and Wales for the purposes aforesaid, or to be appointed one of the five apothecaries hereinafter mentioned, and directed to be appointed for the purpose of examining assistants to apothecaries in compounding and dispensing medicines as hereinafter is mentioned, except he shall have been an apothecary in actual practice for not less than ten years, at least, previously to his being so nominated or assigned or appointed."

THE WEEK.

TOPICS OF THE DAY.

Dr. Thos. Wrigley Grimshaw's pamphlet—"Remarks on impending Sanitary Legislation for Ireland"—treats the subject with much ability; he has evidently bestowed much care and searching investigation upon it. He points out the requirements of sanitary legislation for Ireland, and suggests an outline for organisation and administration which, we think, deserves attention. We agree with him that no permissive powers should be granted to any of the authorities, or to any of the officers of the organisation, except to the central authority (the Local Government) and its *own* officers, and the officers of the Board should have permissive powers conferred upon them only by the central authority itself. The great cause of failure of sanitary legislation up to the present has been caused by its permisaive nature. The obstructiveness of local authorities is now too well known to be allowed to exert its influence upon sanitary organisation or administration. It is evident that, whatever may be the shortcomings of Ireland in some respects, active steps are evidently taken in Dublin in enforcing the penalties for adulterating articles of food and drink. Dr. Charles A. Cameron, analyst to the city, in his twelfth annual report for 1873, states that the fines and costs imposed on forty-three persons convicted for selling adulterated food amounted to £252 11s.; and of twenty-one persons convicted for selling or being possessed of diseased meat, eleven were fined £49 17s., and the other ten were imprisoned for terms varying from three months to fourteen days each: total convictions sixty-four. The names and offence of several of the adulterators were advertised at their own expense.

We should hope that the periodical objections for some time now taken by some of the Middlesex magistrates to Dr. Lankester's charges, in his quarterly accounts for inquests held, will cease. The futility, if nothing else, of these protests was, at all events, made apparent by the admission made by Captain Morley at the quarter sessions held last week—"that he was afraid they were obliged to pay the charges, although some of the coroners seemed to act as if they were utterly regardless of expense." Such objections should cease, moreover, because they cast an aspersion on Dr. Lankester, who has been denied by the magistrates the opportunity of a personal explanation to exculpate himself from this charge "of extravagance and an utter disregard of expense." It should be always borne in mind that cheap legislation is not at all times the best. A coroner, whether he be a medical or legal judge, is bound to carry out his duties in such a manner as to make the court over which he presides to be regarded as efficient in every way for the protection of innocence and the punishment of crime. Parsimony is often anything but economy, and, as a post-mortem examination is frequently the only means by which a righteous and just verdict can be arrived at, we think the Middlesex magistrates, in their conduct both towards the late and the present Coroner for Central Middlesex, have committed a grievous error.

With regard to the elections to the Council of the Royal College of Surgeons, we hear that Mr. Hilton will positively stand for re-election. It is not for us to decide as to the propriety of this,—that belongs to the Fellows of the College. On the one hand they have to weigh the great service Mr. Hilton, from his experience, may be to the College, and on the other, the fact that he has passed the chair, and has held every office of honour connected with the College. We also publish a letter from Mr. Alfred Baker, of Birmingham, with a formidable list of backers.

The governors of the Devon and Exeter Hospital have partially adopted the recommendation of the Committee to reduce the number of physicians from four to two, by deciding not to appoint anyone in succession to the late Dr. Elliot, and to reconsider the question upon the occurrence of another vacancy.

Mr. Edward Bellamy, F.R.C.S., the Senior Assistant-Surgeon to the Charing-cross Hospital, has just been appointed Lecturer on Anatomy in the Medical School.

News from Munich states that the cholera has entirely ceased in that city since the 19th ult.

CHANGES IN THE ARMY MEDICAL SERVICE.

Consequent upon it having been determined to make Gibraltar a station for a surgeon-general instead of a deputy surgeon-general, it is understood that Surgeon-General T. G. Balfour, M.D., at present doing duty as Principal Medical Officer at the Royal Victoria Hospital, Netley, will shortly embark to assume charge there; Dr. Balfour will be relieved as Principal Medical Officer at Netley by Surgeon-General J. Fraser, M.D., C.B., from Aldershot, to which latter place Surgeon-General C. A. Gordon, M.D., C.B., has been appointed on promotion from Dover. The South-Eastern District at Dover will be placed under the medical charge of Deputy Surgeon-General Sir A. D. Home, K.C.B., recently promoted for distinguished services on the Gold Coast, and we believe that another medical officer who was highly spoken of in connexion with the Ashantee campaign—Surgeon-Major G. W. McNalty, M.D.—has been nominated to an appointment at the head-quarters of the Army Medical Department at Whitehall-yard.

THE HOSPITAL SUNDAY AND SATURDAY COMMITTEES.

A special meeting of the Council of the Metropolitan Hospital Sunday Fund was held at the Mansion-house on the 23rd ult., for the purpose of considering what action should be taken with regard to the Hospital Saturday movement, and for organising collections in aid of the metropolitan hospitals and dispensaries among the working classes. The Rev. Canon Miller presided, and Archbishop Manning, Bishops Claughton and Beckles, Sir Anthony de Rothschild, Sir Rutherford Alcock, Sir Charles Trevelyan, and several

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other members of the Council were present. The Secretary reported that at an interview between that Council and the Committee of a Hospital Saturday Fund sitting in Leicester-square, and six working men specially appointed to confer with the two bodies, a resolution was carried that the Council and the Committee should interchange six members each, with a view to promote co-operation and avoid conflict in the collection or distribution of the fund. The chairman pointed out to the meeting that such suggestion was not binding on either body, and that it was for the Council to say whether they would agree to it. They were in this position: that they had two distinct bodies to deal with, each contending that they were the true representatives of the working classes. He believed it would be better to leave the organisation of the movement to those classes themselves, but he deprecated any separate distribution of the funds collected either on Hospital Sunday or Saturday. Mr. Thomson Hankey, M.P., and Mr. Sandeman, although approving of a Hospital Saturday collection from the working classes in London, urged that, as far as the Mansion-house Fund was concerned, the consideration of the matter should be adjourned for the present. Mr. E. H. Currie suggested that the Fund should advertise its willingness to receive any donations which might be made by working men on the day preceding Hospital Sunday. Archbishop Manning showed that the Council from its very formation had been in favour of a Hospital Saturday, and would gladly have co-operated in any movement with that view had they been able to find the authorised representative body with whom they ought to deal. Finally, a resolution was unanimously adopted, on the motion of the Rev. R. J. Simpson, to the effect that the Council, while recognising and highly appreciating the efforts of the working men to aid the object for which the Hospital Sunday Fund was established, felt that under existing circumstances it was expedient that the working men of the metropolis should be left to take any independent action they might think desirable in regard to the Hospital Saturday Fund. The Council also put on record the relation it had always maintained to the Hospital Saturday movement, and claimed without prejudice perfect freedom of action for the future with regard to it.

This step, we think, is the wisest which could have been taken; and it seems a pity that the Mansion-house Committee did not adopt it as soon as they found how hopeless a task it was to assimilate the views of the Leicester-square Committee with their own.

CREMATION AND CRIME.

CREMATION appears in one instance, at least, to have been lately adopted in this country. A woman named Rudder, at Birmingham, was found by a neighbour burning the body of her child in the fireplace. Her statement to the police was, that the child was stillborn, and its father buried it in a cellar. In consequence of mutual threats of exposure she exhumed the body and endeavoured to rid herself of it by burning. When discovered in the act she had reduced the body to a few charred bones. An investigation before the police magistrate as to the concealment of birth has been made, and the prisoner was acquitted on that charge; but in the absence of material witnesses, the more serious charge was not proceeded with, it being understood that there will be a further investigation into the case. It was stated that the birth of the child was known to many persons. It is evident in the case recorded that it would be impossible to determine whether the infant had been born alive by any examination of its remains.

TRIBUTE TO DR. LIVINGSTONE.

IT is proposed by the Edinburgh Medical Missionary Society to erect a new training institution to bear the late Dr. Livingstone's name. The doctor was a member of the Society.

ASSOCIATION FOR THE ORAL INSTRUCTION OF THE DEAF AND DUMB.

A GENERAL meeting of this Association was held on the 22nd ult., in the schoolroom of the institute, Fitzroy-square. Earl Granville, the President of the Association, presided, and moved the adoption of the first report of the Committee, which entered into the circumstances that led to the establishment of a normal day-school for the oral instruction of the deaf and dumb and the training of qualified teachers in the system. The school was opened with three girls and one boy on July 15, 1872, and at the present time the number has risen to thirty-six. The course of instruction comprises lip-reading, speaking, reading, writing, arithmetic, and geography, with drawing, and plain and fancy needlework for the girls. One pupil has obtained a certificate of the second grade for drawing from the Science and Art Department. Only the want of funds has prevented the Committee from adding gymnastics to the other branches. In supplementing the report with some remarks upon the altered treatment of the deaf and dumb, Earl Granville said that so far the system adopted was shown to be preferable to that of the Abbé Sicard in developing the latent faculties of deaf mutes and enabling them to mix in the world on an equality almost with those whose organs of speech and hearing were perfect. After the transaction of the formal business of the meeting the pupils were put through an examination by Mr. Van Praagh to illustrate the success of the system.

SIR PATRICK DUN'S HOSPITAL—ARMY MIDWIVES' CLASS.

FIVE years ago, at the suggestion of the King's Professor of Midwifery, the authorities of Sir Patrick Dun's Hospital obtained the sanction of H.R.H. the Commander-in-Chief to establish a school for training the wives of soldiers stationed in Ireland as midwives and nurses for service in their respective regiments. During this period, upwards of 200 soldiers' wives have been trained in the Hospital Maternity, and taken out their diplomas in midwifery. The women so trained came from sixty-five regiments, including household troops, artillery, cavalry, and line. The great benefit conferred by this training upon the regiments and women belonging to them has attracted the attention of her Most Gracious Majesty the Queen, who has within the last few days expressed her intention to become the patroness of the Army Midwives' School in Sir Patrick Dun's Hospital. The King's Professor of Midwifery is appointed by the King and Queen's College of Physicians, who have recently expressed their sense of the importance of a proper supervision of the education of women professing to act as midwives, by establishing an examination and granting their licence to such midwives as shall pass the examination of the College. We understand that it is in contemplation to obtain the licence of the College in future, in addition to the diploma of the Hospital, for the soldiers' wives trained as midwives in this school.

THE APOTHECARIES' HALL OF IRELAND AND THE PROPOSED PHARMACY BILL OF THE COLLEGE OF PHYSICIANS.

THE Governor and Court of the Apothecaries' Hall of Ireland have published a statement of their reasons for objecting to the Pharmacy Bill for Ireland proposed by the King and Queen's College of Physicians, and noticed by us two weeks ago. It is urged in the statement that a proposition similar to this was rejected by the House of Commons in 1868, when the English Pharmacy Bill was before Parliament, on the ground that "the provisions of the Bill are throughout intended for Great Britain, and consequently cannot be extended to Ireland." In Ireland, for nearly a hundred years, every person has been compelled by law to attend a prolonged course of study and undergo a strict examination prior to his practising pharmacy; while in England and Scotland any person, however qualified, might keep a shop for that purpose. The proposed Bill would also subvert the rightfu

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control over pharmacy which is exercised by the Apothecaries' Hall in virtue of their Act of Incorporation. Objection is taken to the second clause of the Bill because by it there would be introduced into Ireland a number of English chemists and druggists who never passed through the course of study or examination required for pharmaceutical chemists under the Pharmacy Acts. As for the third clause, which proposes conferring a reciprocal right of persons registered by the Apothecaries' Hall of Ireland to practise pharmacy in Great Britain, it is shown to be unnecessary, as the licence of the Hall, being a legally recognised medical qualification throughout the kingdom, entitles its holders to practise both pharmacy and medicine. The Governor and Company maintain that the true cause of the dearth of apothecaries in parts of Ireland is the Medical Charities Act, whereby dispensaries are distributed all over Ireland; and not the protracted and expensive course of instruction required by the Hall, as stated by the College. Lastly, the Hall especially object to the College Bill because they have one of their own, which does not disturb vested rights—one drafted by request of the Government a few years ago, which provides amply for the pharmaceutical wants of the public, has the approval of the associations of "the licentiate apothecaries" and "the chemists and druggists" of Ireland, and which they willingly offer without any pecuniary gain whatever.

PATHOLOGICAL SOCIETY OF DUBLIN.

THE closing meeting of the thirty-sixth session of this Society was held in the anatomical theatre of the School of Physic, Trinity College, on last Saturday afternoon, April 25. The chair was taken at 4 p.m. by Robert D. Lyons, M.D., President of the Society. Dr. MacSwiney exhibited specimens of fibroid tumours of the uterus, with tubo-ovarian cysts, from the body of a pluriparous woman, aged about forty-five years. One of the cysts had burst into the peritoneal cavity, and caused inflammation of the serous membrane, ending in death. Professor Bennett exhibited fractures of the right femur, tibia, fibula, and humerus of a man who had fallen with the roof of a retort-house at the Alliance Gasworks. In addition to the above injuries, the first, second, and third ribs were broken on both sides, and every right rib was broken, the lung tissue being pierced by the sharp fragments in many places. The unfortunate man lived for three hours and a half. Dr. R. J. Harvey showed a renal calculus from a horse. It weighed two pounds four ounces, and was composed chiefly of calcium carbonate. Professor Bennett presented an example of oblique fracture of the right humerus with coincident subcoracoid luxation of the head of the bone. The President, in closing the session, which had been one of remarkable brilliancy, expressed the pleasure he felt in presenting two medals to the authors of two essays on the "Diseases of Articular Cartilages." The gold medal of the Society had been won by "Béryl le Quesne"; but so highly meritorious was the second essay, that the Council had awarded a silver medal to "Nil Desperandum." The envelopes containing the real names of the successful essayists were then opened, when "Béryl le Quesne" proved to be Mr. Kendal M. Franks, B.A., of the University of Dublin, and Scholar of Trinity College, Dublin; while "Nil Desperandum" was Mr. George Forsyth, a Senior Sophister of Trinity College. Loud applause followed the declaration of the names. The session then closed.

PUBLIC HEALTH.

THE authorities of the Charing-cross Hospital Medical School, recognising the fact that the subjects comprised under "Public Health" belong to distinctly different branches of science, have appointed three gentlemen—a chemist, a physician, and an engineer—to give the course of lectures. Mr. Heaton, the lecturer on chemistry, Dr. G. V. Poore, and Mr. Eassie, C.E. (whose name is well known in connexion with sanitary engineering), will each give six lectures. The introductory lecture will be given on Tuesday, May 12, at 2 p.m., by Dr. Poore.

CHILD LABOUR IN HOLLAND.

IT has been resolved at a general meeting of delegates of the Dutch Trade Union that all children who have not completed their twelfth year are to be prevented from working in workshops and manufactories. Children from twelve to fifteen years of age are to be allowed to work only six hours a day, but are to be compelled to give three hours a day to primary instruction, and prohibited from working between 8 p.m. and 6 a.m.

PARLIAMENTARY.—DWELLINGS OF THE POOR—MAINTENANCE OF LUNATICS—REGISTRATION OF BIRTHS, ETC., IN INDIA—COUNTY POLICE AND SANITARY AUTHORITIES — THE METROPOLITAN BUILDINGS ACT.

IN the House of Lords, on Thursday, April 23,

Lord Napier and Ettrick, having moved for copies of memorials on the improvement of the dwellings of the poor in London, was understood to say that he would call the attention of the House to the subject of the memorials when the papers were in the hands of their lordships.

In the House of Commons,

The Chancellor of the Exchequer, in reply to Mr. Leith, said that the proposal of the Government to contribute to the maintenance of lunatics of course extended to Scotland as well as England and Ireland, and would apply to those maintained by asylum rates, and not those by poor-rates.

Lord G. Hamilton, replying to Colonel Makins, was understood to say that under a recent Act the Lieutenant-Governor of Bengal was authorised to adopt such system of registration of births, deaths, and marriages in India as he might consider feasible. Some statistics had been collected by way of experiment, and with a certain amount of success. In other parts attempts to collect vital statistics had been unsuccessful.

Mr. Cross, in reply to Sir R. Anstruther, said that with regard to the burghs in Scotland, he was prepared to alter the order issued by the Home Office respecting the appointment of the police as inspectors of nuisances in boroughs. With regard to counties, that would be a somewhat different thing, because there the police boundaries and the sanitary boundaries were not identical. He thought, however, he could meet the case by altering the order issued in December last on the application of both the police and the sanitary authority to the Secretary of State.

On Monday, April 27,

The Chancellor of the Exchequer, in reply to Mr. Coope said the expense of the maintenance of lunatics inflicted on the counties of Middlesex, Essex, and Kent by the large number of lunatics sent home from India who, being landed in the Thames, were afterwards placed in the asylums of those counties, was a very important question with reference to the three counties, but the question was outside the proposal made in the Budget.

The Metropolitan Buildings Act, introduced by Colonel Hogg, was on Wednesday last accepted in principle on the second reading, but referred to a Select Committee. Adverse comments upon some clauses of the Bill will be seen in our report of the Society of Medical Officers of Health. Dr. Liddle was of opinion that the Bill was so bad that it could not be remedied in Committee.

IT is proposed to establish an infirmary for children at Bolton, with twelve beds.

THE FRENCH MEDICAL ASSOCIATION.—This body held its fifteenth annual meeting last week (under the presidency of Professor Tardieu), when its affairs were stated to be in a very favourable position. It numbers now about 7000, and besides its usual donations in cases of distress, amounting this year to between 30,000 and 40,000 fr., the Society has commenced granting pensions from its fund of 306,616 fr. accumulated for that purpose. Of this, 117,342 fr. have been voted to 14 pensioners—viz., 2 of 600 fr. each, 5 of 400 fr., and 7 of 300 fr. The Association has also supported its members by advice or assistance under various emergencies. The annual banquet was attended by more than 200 guests, and the soirée given by the President was crowded.—*Union Méd.*, April 21.

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THE HOMEWARD VOYAGE OF THE "VICTOR EMMANUEL."

(*From our Special Correspondent.*)

LIST OF THE SICK AND WOUNDED ON BOARD—WEATHER—DEATHS DURING THE VOYAGE—BENEFICIAL EFFECTS OF THE VOYAGE—OUTBREAKS OF DISEASE ON BOARD—METHODS AND RESULTS OF TREATMENT—FEEDING OF THE PATIENTS—VALUE OF THE ICE-MACHINE—NAMES OF THE MEDICAL OFFICERS—INTEREST TAKEN IN THE HOSPITAL-SHIP.

H.M. HOSPITAL-SHIP *Victor Emmanuel* arrived at Spithead at 3.30 p.m. of the 10th inst., after a voyage of forty-three days from Cape Coast Castle. On leaving the Coast she had 167 sick and wounded men on board, of various corps, as per annexed list:—Royal Artillery, 3; Royal Engineers, 6; 2nd Battalion 23rd Fusiliers, 40; 42nd Highlanders, 48; 2nd Battalion Rifle Brigade, 47; 1st West India Regiment, 1; Army Service Corps, 2; Army Hospital Corps, 17; Royal Marine Artillery, 1; Royal Marine Light Infantry, 1; Royal Navy, 1—total, 167. During the preceding fortnight a large number of admissions had taken place, and before leaving all the most serious cases were taken on board from the hospital on shore, and also from other ships, as far as space permitted. Of the 167 embarked, the entire were *bonâ fide* hospital patients, and none came under the category of convalescents. Hence, every available bed on the hospital deck was occupied, and cots had to be slung on the convalescent deck for forty of the milder cases. The number of officers and men on board on leaving the Coast was—Of military, 16 officers, 220 non-commissioned officers and men; of navy, 23 officers and warrant officers, 326 blue jackets and marines; in all, 39 officers and 540 men. Of the 167 sick 70 were suffering from remittent fever, 40 from dysentery, 40 from gunshot wounds, and the rest from other diseases.

The weather was mild and pleasant after leaving Cape Coast Castle, and, although the thermometer did not indicate any noticeable decrease in temperature, there was a marked difference in the sensible heat so soon as we got to sea. This was due to our getting away from the depressing and debilitating moisture of the Gold Coast, where the difference between the dry- and wet-bulb thermometer was never more than 3°, and sometimes only 2°. During a two months' stay at Cape Coast Castle the mean temperature was about 80° Fahr. —minimum 76°; maximum in the shade 85°.

On the voyage to Sierra Leone we lost two officers—one from a gunshot wound of the left groin, involving the profunda femoris artery, and complicated with extensive disease of the heart and arterial system of old standing; the other officer died from acute hæmorrhagic dysentery. At St. Vincent we lost a third officer from suicidal drowning. He had been taken on board at Sierra Leone from the African mail steamer *Liberia*, in a very weak state from an attack of remittent fever. Dysentery supervened, and with it mental aberration began to show itself, continuing after the dysenteric symptoms had yielded to ipecacuanha and quinine. Although quite quiet and harmless, it was thought prudent to place him from the outset under close surveillance, which was accordingly done, and on the day on which he went overboard there were two orderlies outside the door of the water-closet, through the window of which he managed somehow to throw himself so noiselessly as not to be heard by them. Not a moment was lost in getting down the life-boat, and two of the officers of the ship—Lieutenants Hulton and Hocker, R.N.—leaped into the water and swam round the ship in a hopeless search for the poor fellow, whose remains were never found. This act of courage in a harbour like that of St. Vincent, crowded with sharks, deserves an honourable mention. Between Cape Coast and St. Vincent we lost seven men, six of them from dysentery (four of whom were embarked in a moribund state), and one from remittent fever complicated with erysipelas.

The beneficial effects of the voyage on the health of the sick were very marked from the outset, and in the course of a few days the improved spirits, expression, and appetite of almost every one were very striking. This improvement continued progressive until arriving at home on April 10, when, out of 167 embarked in a very weakly state, 129 were discharged to join their respective corps for duty. Only thirty-one invalids were landed at Netley, and admitted to the Royal Victoria Hospital there, and of these two-thirds at least will in all probability be fit for duty again within the next few weeks.

Several cases of relapse of fever occurred on the voyage; the second attacks being occasionally distinctly intermittent, and ushered in by a well-marked cold stage. Some men convalescent from dysentery had relapses, and several in various stages of convalescence from that disease were attacked by remittent or intermittent fever. Again, fever patients frequently got dysentery, and the diseases seemed, so to speak, so closely allied as to be interchangeable—a fact of much practical value in the treatment of dysentery, as indicating the advantage of quinine in combination with ipecacuanha, and also as indicating the cautious use and proper selection of purgatives for fever patients.

The results of treatment cannot be regarded as otherwise than highly satisfactory, inasmuch as out of 350 cases of malarial fever treated, only one death occurred, and this was due to erysipelas with blood poisoning. Nearly all the other patients admitted for fever were discharged to duty at Portsmouth, and of the few taken on to Netley none are likely to be lost to the service. Quinine was our mainstay, and it was administered in some instances in doses that would possibly startle some of our professional brethren in civil life, before any marked benefit was noticeable, and before anything approaching to cinchonism was produced. In several cases forty grains were administered daily for several days, and in a few exceptionally severe cases as much as sixty grains per diem, before any appreciable effect on the fever was produced. Lime-juice, raspberry-syrup, marmalade, and jams of all sorts, with plantains and oranges, were found useful in the stage of convalescence where a scorbutic taint was noticeable.

Of upwards of seventy cases of dysentery treated, eight resulted fatally, but at least six of these were in a hopeless state when sent on board, and four of them almost moribund. When the fatigues of a six days' journey over bad roads, in hammocks carelessly borne by untrained savages, are taken into account, together with the climate and the debilitating conditions of such diseases as bilious remittent fever and dysentery, the only wonder to me is that so few poor fellows perished miserably in the transit, and that we were able to save so large a proportion of the very grave cases sent down to us from the front.

The arrangements for the reception and treatment of the sick on board left very little, if anything, to be desired; and the means of supply of food, thanks to the indefatigable energy of Mr. E. M. Roe, Paymaster R.N., were the wonder of everyone. Never before was it my good fortune to see patients' meals of better quality and better cooked than on board the *Victor Emmanuel*; and, if the expressions of gratitude of our numerous patients can be trusted, the care and nursing received by them on board the good old ship will not soon be forgotten.

Of the forty wounded, twenty-five were sufficiently recovered on arrival at Portsmouth to join their respective corps, and of the remainder now at the Royal Victoria Hospital, only a few are of a serious nature and likely to lead to discharge from the service.

Messrs. Siebe and West's patent ice machine, which was fitted on board at an expense (all told) of £340, continued in good working order throughout, and was an inestimable boon to the sick, besides being a valuable adjunct in the treatment of disease. At Cape Coast Castle, with a mean temperature of 80° Fahr., 240 lbs. of excellent ice in 48-inch slabs were turned out daily; at St. Vincent, Cape de Verde Islands, with an average temperature of 70° Fahr., the daily yield was 360 lbs., and in England would probably be 480 lbs. The amount of coal required to work the machine is about 5½ cwt. daily. The water employed for making the ice was distilled and filtered before its use for that purpose. If we assume 240 lbs. of ice to be the amount turned out daily, and 5½ cwt. to be the amount of coal requisite for its production, and if we estimate 9½ cwt. more of coal as the quantity required to distil the water from which the ice is made, we shall get a total daily consumption of 15 cwt. of coal; this, at £3 a ton, will cost £2 5s., and if we add to this 12s. a day for cost of attendance, we shall find that the current daily expenditure for the machine was £2 17s., or 2·95 pence for every pound of ice manufactured at Cape Coast Castle, and less than half that sum for every pound turned out by Siebe's patent in England. For working the machine four men are required—viz., one engine-room artificer and three stokers.

The names of the medical officers who performed the duties

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of the hospital-ship during her commission, were as follows, viz.:—

Army Medical Department.—Surgeon-Major T. M. Bleckley, M.A., M.D., LL.B. Trinity College, Dublin, in medical charge; Surgeon (now Surgeon-Major) Edward Litten Low, B.A., M.B. (late 102nd Madras Fusiliers); Surgeons Alexander Doig (late 79th "Royal Cameron" Highlanders), James Forbes Beattie, M.A., M.D. (late 79th Highlanders), Alexander Turner, M.D. (late 82nd Regiment), Joseph Fleming, M.D., F.R.C.S. Edin., and W. H. Steele, B.A., M.D. (late Royal Artillery). Lieutenant of Orderlies, W. H. Brown, Army Hospital Corps, as Captain of Orderlies and Medical Storekeeper.

Dr. Bleckley volunteered for service on the West Coast of Africa, and was selected by the Director-General of the Army Medical Department for charge of the Hospital-ship *Victor Emmanuel*. The other officers were all volunteers for active service, and were selected by the Director-General, at the request of Surgeon-Major Bleckley, for duty on board under his orders. Surgeon Fleming, well known to the profession in India for his interesting researches on the subject of "The Delhi Boil," accompanied the expedition as pathologist, and the result of his investigations will, it is hoped, be made public at an early date.

Naval Medical Service.—Staff Surgeon Second Class Richard C. Pasley Lawrenson (Blane Gold Medalist); Surgeon James M'Carthy, M.D. This latter officer served on shore with the Naval Brigade, and has been mentioned in despatches in the highest terms.

The *Victor Emmanuel* is likely to remain for the next two or three months in Southampton Water off Netley, to answer the purpose of an auxiliary hospital during the presence of the invaliding season. She has created much interest in France and Germany, and several eminent Continental surgeons, it is rumoured, contemplate visiting her at an early date.

LETTERS FROM MADRAS.

No. X.

THE GENERAL HOSPITAL (*continued*).—FISH IN THE THROAT—HYDROCELE AND HÆMATOCELE—SCROTAL ELEPHANTIASIS—SKIN-GRAFTING—URINARY FISTULÆ—OPERATION FOR ESTABLISHING FEMALE URETHRA.

I PROCEED to give a few irregular notes of some of the cases that came under my eye in the wards of the General Hospital, Madras, in the *clinique* of Dr. George Smith and Dr. Paul.

One morning, in the midst of the visit, word was brought to Dr. Paul that a man had come to the hospital with a live fish in his throat. Accordingly there was a general move to the verandah, where we saw a coolie, aged about twenty, walking in, supported by a man on either side, breathing with intense difficulty, and in great distress. The story was soon told. He was that morning employed in emptying a tank and in catching the fish that were left floundering when the water was drawn off. In his eagerness he had one under each foot, one in each hand, and, to make sure of a fifth, he tried to secure one by taking its head between his front teeth; but the fish was too quick for him, and, wriggling itself free from the teeth, made its way into the pharynx. A fish of the same sort and size was produced; it was like a perch, about four inches long, with a most formidable dorsal fin, the spines of which, when erected by being pushed the wrong way, stood out at least an inch. A finger passed into the throat easily felt the fish. Here was a very pretty case!—but as the first point was to enable the man to breathe, in less time than it takes me to write it, a bed was brought out into the verandah, and he was laid upon it and tracheotomised. Then what was to be done? Pull the fish out! anyone would say; but although it was easy to seize the tail, there were the erect spines of the fins, which would have lacerated the parts past recovery had the fruitless attempt been made. Then it was suggested to push the fish down into the stomach; but alas! it lay doubled up with its head to the left, and this could not be done. Then, when this was ascertained, it was hoped that the head might be turned upwards with a blunt hook, and so be dragged out. But the fish would not move. So it was necessary to leave the patient for a few hours—he was breathing freely, and nourished with beef-tea enemata. Next morning it was found that the fish had become decomposed, and was easily broken up into a putrid pulp, some of which made its way into the trachea, whilst the spines offered the greatest obstacle to any removal by the mouth. In order to afford room for clearing the throat, the wound made in tracheotomy was enlarged upwards through the junction of the alæ of the thyroid; but the patient was very exhausted, and died before relief could be given. I believe this accident is pretty well known amongst fishing communities, and that there is a preparation in the museum of one of the Scottish universities showing a pharynx with the fish impacted. A short time afterwards, the history of just such a case was related in the Indian newspapers as having occurred in Ceylon. It is said that the fish was allowed to putrefy in the pharynx, whence it was ejected piecemeal next day, and that the patient recovered. But in order that such a policy may be successful, the patient must be provided with means of breathing, and the fish should have no spines.

There was a large number of cases in which the scrotum was implicated; during 1872, forty-three Europeans and fifty-one natives had been treated for such affections. The simplest were orchitis, consequent on gonorrhœa, treated in the usual way. Much more common were hydroceles, which were, when recent, tapped, injected with strong iodine, and soon dismissed cured. But a patient who carries about a hydrocele, after a time has it converted into a hæmatocele. The interior of the sac bleeds from time to time, perhaps from injury, or perhaps the vessels give way under the pressure from within, for there seems a great tendency here for hæmorrhage into the interior of cysts and abscesses. Well, the patient, after the way of these poor people, goes on carrying his load about as long as he can, and then he presents himself with one testicle (perhaps both) converted into a hard, opaque, resistant tumour like a cocoanut. It would be of no use to tap this; but the surgeon makes an incision into it of two or three inches, at its lowest part, and out comes a lot of cheesy curdy stuff, consisting of partially decolorised blood-clot, perhaps in the form of melon-seeds. A bit of lint dipped in carbolic oil is put to keep the wound open after the cavity has been syringed out with carbolic lotion; then it is left (in the language of our forefathers) to mundify, carnify, and cicatrise. The mundifying process consists in the gradual decomposition and discharge of the contents of the cyst; and during this process, which lasts some days, the dresser (at least, for his own comfort) will be lavish in the use of Condy's fluid and carbolic lotion, with which the inside of the cyst is sluiced out. Then the tunica vaginalis sloughs out, and comes out bodily, with the *adnata* and the *reflexa* portions; then the cavity (which at first was absolutely as hard and incompressible as a cocoanut-shell and quite unable to collapse) begins to contract and granulate, and the patient gets a radical cure—for there can be no more hydrocele when there is no more tunica vaginalis.

There is a variety of this malady which I will take the liberty of naming *osteo-kysto-hæmatocele*, and of which many specimens were shown me by Dr. Paul. The number of hæmatocele cases was surprising, and Dr. Paul would possibly show me four or five in a row. In incising some of these the knife is felt to grate, and it is clear that the limitary membrane of the cyst has had plates and scales of true bone developed in it. These are easily felt by the finger, and come away piecemeal in the discharge.

There is yet another variety of these cases which Dr. Paul has shown me—abscess and sloughing of the tunica vaginalis. A man with or without a hydrocele is attacked with inflammation of the scrotum, an incision is made, and after a few days the whole tunica vaginalis sloughs and comes away.

Elephantiasis of the scrotum is common enough. The poor coolies carry the tumours about with them for years, and probably cause themselves infinite suffering by applying acrid leaves and other native remedies; but at last they come to the Hospital, for although they do not give the European doctors the credit of understanding humours and remedies, they all agree that they can operate. Ten such patients were admitted in 1872, of whom two died after the operation. One source of mischief is the exceedingly low state to which patients are often reduced by disease and starvation; then when they come in they are all eager, as Dr. Smith says, for "mutton chops and port wine," which they see to be the panacea of many of the conquering race. But their attenuated viscera cannot bear the unusual task of digestion, and diarrhœa ensues. This was the history of a gravedigger, who came with an enormous tumour weighing forty-five pounds, at least one-third of the total

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weight of the patient. He became impatient, and threatened to drown himself if the operation were not performed. At last, when he had been fed up as cautiously as possible, the tumour was removed with such precaution that the loss of blood was trifling. He did well for ten days, then was carried off by a recurrence of the diarrhœa. I need not describe this disease; how the tumour presents an aperture leading to the penis, which is entirely buried in the mass; how before the operation, if there be dread of the effects of bleeding, a couple of stout meat-hooks are run into the tumour, which is hoisted by pullies; how the operator begins by slitting up the sheath of the penis, next cuts down to and disengages the testicles, and then cuts off the tumour, leaving the penis and testicles and root of the scrotum as a great wound, which first undergoes a process of cleansing by the sloughing off of the remnants of hypertrophied areolar tissue, and then heals by granulation. This process leaves the patient at last with the penis and testicles entirely covered by new cuticle; but it is very tedious, taking generally four or five months, during which time the patient fills a hospital bed, and is exposed to the accidents—unhealthy exudation and the like—to which the best-regulated hospitals are liable. Some surgeons have endeavoured to shorten the process by saving skin enough to cover the testicles; and one case in which this was effected very skilfully was shown me by Moodeen Sheriff (the patient was mentioned in a former letter as a leper who had elephantiasis scroti as well). But it is generally found that this attempt fails. The thickened, gristly skin, in which a knife will snap off if pushed askew, and the blubbery areolar tissue, have very little vitality, and do but add to the quantity of sloughing; so that unless thin and healthy skin can be found at the perineal base of the tumour, it is best to cut all clean off. Another plan is the skin-grafting, which really promises to be successful, and which most certainly establishes new centres of cicatrisation wherever the grafts are inserted. Thus, no doubt, the process will be shortened, though I have no figures to show how much. Skin-grafting is practised in this hospital whenever there is opportunity, and no doubt it does good; but shorten it as you may, the cicatrisation of large surfaces is always tedious.

The "elephant leg" is common enough in both sexes, though not so as on the western coast. It is so prevalent at Cochin as to receive the name "Cochin leg" in addition to its many *aliases*. What the particular condition is which determines this disease is not known: heat, dust, malaria, unwholesome food, or all combined. The enlargement is liable to fits and starts of increase, attended with fever; but whether the fever causes the local swelling, or some generation of diseased products causes the fever, I know not. It seems certain that cleanliness, bandages, good food, quinine, and the removal of all contiguous irritation put a check to the disease for a time. This was manifest in the case of a European, with elephantoid enlargement of the prepuce, extending down the raphe of the penis and slightly involving the scrotum. This patient had hydrocele, and it was noted that the elephantiasis diminished whilst he was kept in bed, and the hydrocele cured.

Perhaps the cases which of all others most impress a stranger by their number and severity are those of stricture with urinary fistulæ. Amongst the lower orders incontinence is rampant, and so are venereal diseases. Gonorrhœa is common; and, by-the-bye, gonorrhœal rheumatism seems to be of far greater frequency, though of much less severity, than in the few and tedious cases we are liable to meet with in England. Gonorrhœa is treated by native practitioners by strong injections, and, whether in consequence of this or not, stricture of the worst kind follows; meanwhile, the patients, usually poor labouring men employed in carrying burdens, accustomed to suffering and hard fare, go on with increasing difficulty of making water, till abscess after abscess forms, bursting and leaving fistulous openings in the under side of the penis, in the scrotum, in the perineum, and lower part of the abdomen; and thus at last the patient is induced to come under European treatment, miserable and emaciated, and spending half his days and nights in squatting to squeeze out urine from what seem like the holes of a cullender. Now, what is to be done for this? Pass a catheter? Why, the urethra, if its canal exists at all, is a gristly cord, twisted, warped to one or other side, and tied down by adhesions as hard as cartilage. No catheter will pass for ever. The canal is abolished. In this dilemma Dr. Paul places the patient, chloroformed, in the lithotomy position; with his left forefinger in the rectum he feels for the front of the prostate; then plunges in a straight knife, edge upwards, through the perineum to the urethra, just in front of the prostate; a director passed in along the knife goes into the bladder,—this guides in a female catheter; and the operation is done in less time than it takes me to write. The female catheter is stoppered and tied in, and the patient sent to bed. When he wants to empty the bladder he pulls out the stopper. The catheter is changed every few days, and perhaps replaced by a length of gum-elastic catheter. Then the fistulæ begin to mend in time. Some I have seen dealt with by caustic potass; Dr. Paul sometimes cuts out a gristly lump; anyhow, the patient is relieved from the irritation of a dozen suppurating apertures, some of which may be as high as the navel. In one ward three patients on whom this operation had been performed were lying in consecutive beds; they had become retromingent, and were likely so to continue. If some surgeons at home disbelieve in impermeable stricture, let them come here.

ABSTRACT OF

THE LUMLEIAN LECTURES.

DELIVERED AT THE ROYAL COLLEGE OF PHYSICIANS.

By FRANCIS SIBSON, M.D., F.R.C.P., F.R.S.,
Lately Physician to St. Mary's Hospital, etc.

ON THE INFLUENCE OF BRIGHT'S DISEASE

(1) ON THE HEART AND ARTERIES, AND (2) ON THE PRODUCTION OF INFLAMMATION.

LECTURE I.

DR. SIBSON commenced his lecture by directing the attention of his audience to the printed tables which had been placed in their hands. These tables showed the cases of Bright's disease examined after death at St. Mary's Hospital between the years 1851 and 1869, and were from records which had been made and kept by such careful observers as Drs. Murchison, Burdon-Sanderson, Broadbent, Bastian, Payne, etc. In arranging the cases under different heads, regard had been had both to the size of the kidneys and to the nature of the change. The first class consisted of 16 cases of acute Bright's disease, of which 5 were consequent on scarlet fever. The second class consisted of 58 cases of fatty kidney, which had grown out of acute Bright's disease. The third class consisted of 144 cases of granular kidney, which stands apart from other diseases of the kidney in the origin, character, and progress of the disease. This class was subdivided into three groups, according to the size of the granular kidney—namely, 115 in which the kidney was lessened in size, 15 in which the kidney was of natural size, and 12 where it was enlarged. Although these groups differed from each other in the size of the kidney, they agreed in the essential nature of the disease—wasting of the secreting structure. It would be afterwards seen that these three groups of cases agreed in all their other conditions. The fourth class of cases comprised 15 lardaceous kidneys, 1 kidney with tubercular disease, 9 non-suppurative kidneys (owing to calculus in the kidney, pelvis, or ureter), 14 kidneys affected with disease, usually suppurative nephritis, owing to stricture or affection of prostate or bladder, and 13 cases where Bright's disease was doubtful.

Dr. Sibson said that the object of his lectures was to note the condition of the heart which accompanied these diseases of the kidney, having regard, at the same time, to the other causes which might come into force. He would arrange the conditions of heart found in each class under five heads—the heart (1) small, (2) of natural size, (3) rather large, (4) very large, and (5) of doubtful size. In none of the first class of kidneys was the heart small, but it was small in 16 of the second or fatty class, in 4 of the third or granular class, in 3 of the 15 cases of lardaceous disease, and in 5 of the cases connected with calculus, stricture, etc. The heart was of natural size in 5 of the acute class, in 20 of the fatty class, in 33 of the granular class, in 7 of the lardaceous group, and in 9 of the kidneys connected with calculus, stricture, etc. The heart was rather large in 4 of the acute class, in 9 of the fatty class, in 24 of the granular class, in 1 of the lardaceous group, and in 7 of the kidneys connected with calculus, stricture, etc. Lastly, the heart was very large in 8 of the acute class, in 14 of the fatty class, in 84 of the granular class, in 3 of the lardaceous group, and in 1 of the kidneys connected with calculus, stricture, etc.

Some of the points had now to be examined in detail. The

heart was found to be *small* in so many cases of each class. Now, of the 16 cases in which the heart was small with fatty kidney, 7 had phthisis, 1 had ascites, and so on, making 13 in which the body was emaciated from some exhausting disease. Of the 4 cases in which the heart was small with granular kidney, all had phthisis, 2 had cancer, etc., so that exhausting diseases had been at work in all the cases. Of the cases in which the heart was small in lardaceous, calculous, and other diseases, we may at once say that the patients had all been subject to exhausting disease, from the very nature of these.

The heart was found of *natural size* in so many cases in each class. Of the 5 cases in which it was of natural size with acute Bright's disease, 2 were emaciated from other exhausting disease. Of the 20 cases in which the heart was of natural size with fatty kidney, 12 were emaciated from exhausting disease, such as phthisis, pneumonia, pleurisy, pericarditis, purulent deposits, etc. Of the 33 cases of granular kidney with normal-sized heart, 19 had suffered from exhausting diseases, such as phthisis, empyema, etc. Of the 15 cases of lardaceous, calculous, etc., kidney, with normal-sized heart, 12 had suffered from exhausting diseases, chiefly disease of bones and joints, empyema, abscess of the kidney, etc. Now, when it was borne in mind that there was in so many of these cases exhausting disease, tending to diminish the size of the heart, it might fairly be asked whether there was not present some influence which tended to enlarge it. Thus, in the class of contracted kidney, where the heart was of natural size, it must be inferred that there was some influence at work which kept the heart at its natural size, in spite of the exhausting diseases which were present. In fact, in some of the cases such an influence was visible in the heart itself, such as valvular disease, atheroma, etc. The same remarks applied to the lardaceous group, and the group connected with calculous and other diseases of the passages, where the heart was found of the natural size.

Next come the cases of kidney disease where the heart was *enlarged* either somewhat or very much. In the fatty class, of the 14 cases in which there was great cardiac enlargement, only 1 was free from some other cause besides the renal condition, chiefly valvular disease of various kinds, atheroma, adherent pericardium, and emphysema. The heaviest heart weighed 30 oz., the lightest 17 oz.—without valvular disease. The great influence of valvular disease, etc., is thus demonstrated.

The most important class of all is that of *granular* kidney, where the kidney is lessened in size, and the heart much enlarged. The average weight of these hearts was found to be 20½ oz., or double the normal. Of 59 of these cases valvular disease existed in 22, the pericardium was adherent in 2, the aorta was atheromatous in 13, and the coronary arteries were diseased in 2—making altogether 32 cases in which a factor of enlargement existed in the heart or arteries, or rather more than one-half. Now, when the weight of the heart in these cases was compared with the weight of the heart in valvular disease alone, Dr. Sibson was able to say that some factor had been at work beyond the valvular disease. A most important point for consideration was the general condition of the patients: no less than 24 of the 59 were emaciated, and 5 had ascites. In about a half of the patients, therefore, the body had been wearing away while the heart increased to double its natural size. Some great intrinsic influence was plainly therefore at work.

Another class of cases demanding careful examination is that of great enlargement of the heart with granular but either enlarged or natural-sized kidney. Of 16 cases in which either of these combinations was found, 11 of the hearts presented local disease which might induce enlargement; while, on the other hand, 3 of them were emaciated.

Of lardaceous disease the heart was found very large in one-fifth the number of cases, without concomitant valvular disease, except in one instance where there was aortic incompetence. This group differs, therefore, from the others of the same class in which the heart is not greatly enlarged, but either small, natural, or rather large only. There must, therefore, have been some cause at work in the first group to maintain and even greatly increase the size of the heart. In one of the cases of stricture the heart was found very large.

The first class of cases, or that of acute Bright's disease, had been left till the last, in the consideration of enlargement of the heart, in order that it might be examined at greater length. Cases of acute Bright's disease have a special interest in this connexion, because in many of them we can assure ourselves of a previously healthy, virgin state of heart. In about one-third of the 16 acute cases the heart was found very large, weighing from 15 to 21 ounces. One had, however, slight disease of the aortic and mitral valves, 1 adherent pericardium, and 2 others pericarditis; and in all these, except where the pericardium was adherent, the enlargement was probably due to the Bright's disease; while the pericarditis was itself probably due to over-action of the heart. In 4 of the acute cases the heart was found rather large, and, although there were certain complications in some of the instances, the increase, just as in the great enlargement, was evidently due to the kidney disease. In 4 acute cases the heart was of natural size, of which 2 cases occurred after scarlet fever and 2 not. Now, in at least 3 of these cases diseases of a lowering character were present, and probably restrained the growth—namely, pleurisy, peritonitis, and phthisis. There must have been, therefore, an agency at work which tended to enlarge the heart. We have, in fact, in these cases an epitome of causes tending to increase or to diminish the size of the heart. The heart was stimulated by the former to more work, and so became hypertrophied; while by the latter causes its action was lowered and its growth restrained. In the struggle between the contending forces the kidneys prevailed, and hence the heart was found enlarged or normal. Dr. Greenfield, Medical Registrar of St. Thomas's Hospital, had prepared a table for Dr. Sibson, showing the relation of acute Bright's disease to the size of the heart in 16 cases. In 4 of these great enlargement existed, the left ventricle being especially hypertrophied. The weight in these cases ranged from 15 to 30 ounces. In only 1 of the cases was there valvular disease; and none of them had been subject to disease of an exhausting nature. In post-scarlatinal cases the heart was found once somewhat enlarged, and in some diminished in size. Altogether, these cases were of much value in estimating the effect of acute Bright's disease on the heart.

Dr. Sibson concluded the examination of his tables with an analysis of the cases of chronic Bright's disease where the heart was found *rather large*. Of 58 cases of fatty kidney the heart was rather large in 8, but in one of these there was valvular disease as well. Still, it was seen from these instances that fatty kidney, without exhausting disease, has a tendency to enlarge the heart. Of the 144 cases of granular kidney the heart was rather large in 23, or about one-sixth, but in 6 there was valvular disease, and in 2 atheroma; while phthisis or other exhausting disease was present in 10. These statistics showed, so far as they went, that the granular kidney has more tendency than the fatty to increase the size of the heart.

Reviewing the whole table once more, it would be found that in the cases recorded three factors were at work upon the heart—namely, wasting diseases, diseases of the heart itself, and kidney disease. The immediate influence of kidney disease is in the direction of enlargement, of wasting in the direction of reduction; and according as the one or the other prevails the heart is found larger or smaller. Diseases of the heart itself and of the arteries enlarge the heart, and therefore they and kidney disease together cause great enlargement.

It was with much pleasure that Dr. Sibson turned from these statistics to the consideration of Bright's disease as it is seen at the bedside, and specially to acute Bright's disease. He wished to limit his remarks to the condition of the heart and great vessels in acute Bright's disease, and to go no further. Detailing the history of certain striking cases which had come under his own observation, the lecturer commenced with that of a labourer of thirty-two, who was admitted into St. Mary's Hospital in August, 1870. The man had been always well until three weeks before he entered the ward with general œdema, pains in the sides, and a trace of blood in the urine. On his admission, the apex-beat of the heart was found half an inch to the left of the left nipple line, the first sound was inaudible over the great vessels, and the second loud and ringing. Over the left ventricle the first sound was heard reduplicated. [Dr. Sibson here strongly recommended the use of the double-eared stethoscope.] A week later the first sound was still heard reduplicated, but the sign was best marked the breadth of a stethoscope below the nipple.

A fortnight after this case had left the hospital a young woman was admitted with acute Bright's disease, who had a history of a similar attack twelve months before. The urine was smoky, and contained much albumen. The present attack had been sudden. The cardiac apex was found beating one

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inch to the left of the left nipple, no less than five inches from the lower end of the sternum. The first sound was prolonged at the apex, with shock; both sounds were moderately loud. On the ninth day the impulse was less strong, and not so far to the left. On the thirteenth day the impulse was scarcely palpable over the right ventricle. On the fourteenth day the apex-beat was found in the nipple line. The patient left on the forty-eighth day. This case shows the influence of acute Bright's disease on the size of the heart. The apex was at first an inch to the left of the nipple, and the pulse tense. After a few days the impulse was of natural strength and area, and finally the heart returned nearly to its natural limits. Dr. Sibson merely wished to point out in this place that the heart is greatly enlarged under the influence of acute Bright's disease, and that after a few days of rest, etc., the size is again diminished.

Before concluding the first lecture, Dr. Sibson wished to introduce to his audience the history of the most typical case of acute Bright's disease in this connexion which he had seen or could relate. The patient was under the care of Dr. Wilson Fox at University College Hospital. When first examined by Dr. Sibson he presented a doubling of the first sound to a considerable extent, but not so much as might be. Next day the first sound was heard doubled over an area extending from two inches to the right of the sternum to three inches to the left of the same line, and as low as the ninth rib. Pulsation could be felt over the aorta in the second right intercostal space; and on listening over the same vessel the second sound was heard loud and ringing, and the first muffled. The pulse at the wrist was tense and firm. Having given this glimpse of a case so typical, Dr. Sibson postponed the details of it until his second lecture.

THE NEW DENTAL HOSPITAL OF LONDON.

The most imposing building excepting the Alhambra in the now notorious Leicester-square is that of the Dental Hospital, just removed from the corner of Soho-square. The frontage of the new building is very extensive, so that the light admitted to the operating-rooms is everything that could be desired. The front of the Hospital is faced with red brick. On the first floor are the extraction-, waiting-, and gas-rooms. These may not be too small for present requirements, but it is more than likely that a large increase of patients will result from the removal of the Hospital to this very central position. There is only accommodation for about three operating-chairs in each room, as there are but two windows. On the next floor are the committee-room and lecture-theatre; these are large and airy. At the west end of the theatre the ceiling has been removed so as to communicate directly with the museum above by a large square opening, protected by a balcony railing, forming in this way a kind of gallery to the theatre. The Hospital was opened to the public on March 12, and a large number of patients have already availed themselves of it. Every case is carefully entered in the Hospital books, in which are columns recording the form of disease, treatment, nature of filling, name of dresser, etc.

The walls of the theatre are adorned by portraits, for the most part full-length, of former presidents, among whom we recognised Samuel Cartwright, the first president of the Odontological Society, 1858; Parkinson, Rogers, and Marshall Rigg.

On the third floor is a library, well stocked with medical books. The students will no doubt find this most useful; as also the museum on the same floor, in which are many very interesting specimens of disease and malformations more or less rare. We recognised some instruments and mechanical appliances of ancient construction.

We are glad to find that the Hospital, at the suggestion of Mr. Saunders, resolved in July of last year that in future no gold fillings be undertaken unless payment for the same be made by or on behalf of the patients. The luxury of gold stoppings should certainly be limited to paying patients.

We have not yet described the most important department of the Hospital—viz., the arrangements for stopping decayed teeth. The room set apart for this purpose is at the top of the building, and, although somewhat of a climb for invalids, is admirably adapted for the purpose. There is accommodation for between twenty and thirty dressers to work at a time. The light is good, and much valuable instruction is provided in this room for the students. All the most recent improvements in mechanical dentistry are at the disposal of the dressers, including the new American drill machine, which is worked by a treadle. Notwithstanding our limited experience of this machine, we must caution the students against employing it too frequently to save time. We have seen the pulp cavity invaded before the operator knew where he was. The power of this instrument is so great that, unless used with great care, it may do much harm.

It will thus be seen that the building, though showy outside, is nearly all frontage, so that the space is somewhat contracted and the rooms small. We had hoped to have found ample arrangements for instruction in the mechanism of artificial teeth, etc. It is proposed to set apart a room in the basement for a course of lectures on this subject.

FROM ABROAD.

Dr. Thomas on Uterine Pathology.

Bearing the title of "General Considerations upon Uterine Pathology," Dr. Gaillard Thomas delivered an interesting lecture before the College of Physicians and Surgeons, New York (published in the *New York Medical Journal* for March), of which the following is an abstract:—

"Nothing brings more discredit upon the gynæcological department of the profession (he observed) than the uncertainty and confusion of the pathology professed, many of its votaries, instead of taking broad and strong views, becoming the partisans of some special dogma or theory which is attacked by others, who hold some view equally narrow, incomprehensive, and exclusive. While some regard inflammation of the parenchyma as the great moving cause of uterine disorders, others attribute these to displacements of the organ, to irritation or hyperæsthesia of its nerves, to catarrhal inflammation of the mucous membrane, or to the inefficient restoration of the uterus after the structural changes consequent on utero-gestation. Dr. Thomas believes that the time has arrived when exclusive views of this kind should cease to prevail, it being admitted that each of these conditions may exert its influence in certain cases.

"The position which I assume, with reference to the pathological series which may result in confirmed uterine disease, is this: that the pelvic organs of a woman who has hitherto been in perfect health may become gradually or suddenly diseased by one of the three following abnormal developments in the uterus:—1. Disorder in innervation and circulation. 2. Change in quantity of muscular or connective tissue. 3. Change in position. I assume, furthermore, that, the first here mentioned being the primary lesion, the second and third may result from it; that, the second being the primary lesion (as in sub-involution or the development of neoplasms), the first and third may result from it; and that, the third first primarily showing itself in a perfectly healthy organ, the first and second may be its consequences.

"Let us now proceed one step farther. Those primary pathological conditions which most commonly produce disorder in the three elements which I have mentioned may be said to constitute the especial factors of uterine disease. What are they? 1. Catarrhal inflammation of the lining membrane. 2. Prolonged congestion of the uterine tissues. 3. Excessive growth of muscular or connective tissue. In the beginning, one only may exist—uterine catarrh, for example; in time this may induce another, congestion in the parenchyma; and still later this excessive blood-supply may result in a third, hypergenesis of connective tissue. Whatever, then, tends to induce and keep up any one of these three morbid states, tends directly to the establishment of confirmed uterine disease; and the consideration of this point brings us to the investigation of the individual pathological agencies which ordinarily produce such a result.

"1. In a very large majority of cases of uterine disease, the first link in the morbid chain is sub-involution, which produces, as direct consequences, passive congestion, hypersecretion by the lining membrane, menstrual disorders, displacements, sterility, and interference, by pressure, with neighbouring organs. 2. A certain number of cases is produced by disordered uterine circulation and innervation, the results of displacements of the uterus, either as a whole, or by bending of itself upon its axis. Such displacement or distortion induces passive congestion, hypergenesis of tissue, dysmenorrhœa, sterility, and

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endometritis. 3. A certain number of cases arises from primary catarrhal inflammation of the lining membrane of the uterus itself. This, commencing as an entity, results in hypergenesis of tissue, displacements, menstrual disorders, and sterility. 4. In a number of cases by no means small, the circulation, innervation, and size of the uterus are interfered with by obstruction to the escape of menstrual blood. Such obstruction distends the uterine cavity by imprisoned menstrual dicharge, inflames its lining membrane, and results in leucorrhœa, dysmenorrhœa, hæmatocele, and flexions. 5. In some cases the uterus is, by sympathy with diseased ovaries, kept in a condition of exalted innervation and deranged circulation, which in time eventuates in the congestion of the whole organ, and hypersecretion by the mucous lining. As consequences of these states, there appear as symptoms leucorrhœa, menstrual disorders, displacements, sterility, etc. 6. The development of benign or malignant growths, consisting of hyperplasia of one or more of the uterine elements, often deranges the innervation, circulation, and proportionate weight of the uterus, and results in displacement and sterility, menstrual disorders, leucorrhœa, pelvic pain, mechanical interference with surrounding organs, etc. 7. The uterus, although not primarily affected, may become displaced and congested from interference by contracting lymph, exuded in contact with it and over its surface, as a consequence of pelvic peritonitis. Such displacement and congestion may result in excessive growth of tissue and endometritis. 8. Disease, not only of the neck, but of the body, and not only of the mucous membrane, but of the proper tissue of the organ, is sometimes induced by laceration of the cervix, which results in eversion, and the exposure of a large and vulnerable surface to friction and injury during coition and exercise."

With this wider view of the pathology of the organ displayed, it would seem strange that uterine disorders should be so often referred to one exclusive pathological condition; and Dr. Thomas believes that their being so has arisen from cause and effect having been confounded in the consideration of the cases. The promoter of the theory of inflammatory origin will have no difficulty in detecting the existence of inflammatory action in any case of long standing, although he may fail in placing this in its proper sequence.

"In the great majority of cases in which a diseased uterus is examined after it has been in an abnormal condition for a long time, the following physical signs will be discerned:—1. The uterus will be larger than in the normal condition. 2. Catarrh of the lining membrane will exist. 3. The vaginal face of the cervix will be in a granular condition. 4. The uterus will be displaced. 5. The ovaries will be slightly enlarged, and sensitive. Here are five theories offering themselves for adoption, and in a conclave of five consultants each might hold unassailable ground, and each might possibly be right; but, as no one has the key to the progressive development of this complex condition, no one can prove himself so.

"According to my observation, the analysis of this collection of morbid states which most frequently furnishes the key to their solution is this:—Involution of the uterus was interfered with perhaps five years before, and sub-involution existed, and left the organ large and heavy. This soon resulted in displacement, which impeded venous return; from this a uterine catarrh arose, which excoriated by its discharge the vaginal face of the cervix; from this cause, combined with friction, granular degeneration took place; and the irritation transmitted by this combination of irritating influences created enlargement and sensitiveness of the ovaries. I say that, according to my experience, the most common factor in this series is sub-involution, but I do not say that it is the universal factor. It may be that all these lesions arose from congestion due to retroversion which has been neglected, and has long prevented free venous return; or, perchance, the large granular surface, which has been called an "inflammatory ulcer," is an eversion of the cervical mucous membrane, due to the rupture of the cervix which occurred five years ago in parturition, and has kept up nervous irritation and hyperæmia, which have resulted in all these 'signs of inflammation.'

"Impressed by the fact that, with many of the physical and rational signs of inflammation, the enlarged, sensitive, and engorged uterus is not inflamed, one party has endeavoured to cut the Gordian knot by styling the anomalous state as one of 'irritability.' But the term was badly chosen, and its introduction has accomplished more confusion than simplification. Nor has the profession generally been willing to accept a name signalising the nervous condition alone for a state characterised by congestion, hypergenesis of tissue, and coincident—probably resulting—nervous exaltation. But, it may be asked, Is not this condition of enlargement of the uterus, after all, a state of inflammation, of chronic metritis, however it may have arisen? I answer, No more a condition of chronic inflammation than is the enlargement of the tonsils, which lasts for years in children; or than the tender, enlarged spleen, the ague-cake of malarial poisoning; or than the enlarged testicle in syphilis."

GENERAL CORRESPONDENCE.

THE RESIDENT MEDICAL OFFICERS OF KING'S COLLEGE HOSPITAL.

LETTER FROM DR. LIONEL S. BEALE.

[To the Editor of the Medical Times and Gazette.]

SIR,—The recommendation No. 2, page 10 of the "Report of the Referees on the Nursing Arrangements of the Hospital,"(a) "That one of the resident medical officers of the hospital should be a permanent officer of such age and experience, and invested with such authority, as may tend to insure for him the confidence and deference of the sister in charge, and also of the secretary and matron and junior medical officers," would, if acted upon, subvert a principle adopted at the foundation of the hospital, and which constitutes an important feature of our school.

I cannot think that Lords Hatherley and Selborne have had explained to them the great alteration in our system which the proposed appointment would bring about, although it appears they have had before them "some of the medical officers."(b) An opinion in favour of the change in question has, I am well aware, been entertained for many years by some influential persons interested in the hospital; but before such a proposal was definitely made to the Committee of Management of the hospital, the views of the staff and others most concerned ought surely to have been ascertained. The new post proposed could not be made without the sanction of the Council of King's College, and I do not think the Council have been consulted.

I fear many persons may be unduly influenced against our system of resident appointments, which has now been acted upon for more than thirty years, by such a phrase as "extremely young men," for the governors are not told that these very young men are in all cases members of a college or hall and duly registered as medical practitioners of the United Kingdom—many of them possessing more than one medical diploma, and not a few being graduates of the University of London. Moreover, the "very young men" are the most distinguished students of our school, who have served several practical appointments in the hospital with the greatest credit, and are selected by examination. The sort of men who have filled these posts can easily be ascertained by anyone who will glance over our list and then refer to a list of the teachers and officers of the London and provincial medical schools and hospitals and infirmaries. As far as I am able to judge, our plan has in practice worked admirably, though it is different from that adopted in most hospitals. I believe I can show that it has been carried out to the advantage of the patients, to the satisfaction of the physicians and surgeons, and of the committees of King's College Hospital since its foundation. Before, therefore, a system which has been of such immense advantage to our school is abandoned, I hope full consideration will be given to the matter, and the special question, which is far more important than many would think, be discussed in all its bearings.

My own feeling as an old house-physician is, I need scarcely say, very strongly in its favour, but though I am quite sure I can recount its merits, I am not so certain that I am fully alive to its faults. More than one hundred practitioners have passed through one or other of these resident offices in King's College Hospital, and I should much like to hear what some of them think upon the matter. In my own case I owe very much to the advantages I enjoyed while a resident. The work upon which my first paper (*Medico-Chirurgical Transactions* for 1854) was based, was performed while I held office.

(a) Published in full in the *Daily News* of April 29.

(b) It does not appear from the report whether any member of the *permanent staff* of the hospital was present, nor is it clear whether the term "medical officers" is intended to exclude all but the "extremely young men" referred to in another page.

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Then was laid the foundation for scientific and medical work afterwards carried out; and, immediately after my term of office had expired, practical effect was given to ideas developed when I was in the hospital and working under my old masters Drs. Budd and Todd. And last, but not least, such knowledge of disease was acquired as can only be gained by constantly working at the bedside *under a sense of real responsibility*, and not merely as a curious and interested observer and note-taker. I am sure I should have been called by Lords Selborne and Hatherley an "extremely young man," and I looked younger than I was, but in those days there were few complaints, and the relation between the Committee and the residents was as pleasant as could be desired. Many of the members considered us very young I daresay, but upon the whole as much deference was paid to us as would now be paid to "a permanent resident medical officer of maturer years," and we were treated with kindness, confidence, and friendship.

We have got on well for thirty-four years without a permanent resident, and I cannot see why we should not go on as well for fifty years more. The "differences" are of very recent origin, and in no way connected with the medical work of the hospital. It seems, therefore, scarcely fair that we should suffer on account of the disagreements of others. Our system is, I know, adopted in few hospitals, but that fact proves nothing against it. Why should our hospitals lose their individual traits, and all be forced to adopt one uniform system of management? Uniformity of administration excites the admiration of some minds; but—at least, in England—many different systems meet with a pretty equal share of success and support. Some want to make us all work in one way, in one groove, but that all can never be made so to work is perfectly certain.

If the appointment of a "permanent resident medical officer of maturer years" would solve the difficulties under which we suffer, even those who feel most strongly in favour of our old and well-tried system might be induced to agree to its being modified, but there is no reason to suppose that the change would have the effect desired. The referees pertinently remark that without a reasonable and conciliatory spirit no good can be expected to follow from their recommendation or from any others that might be made. Is there not every reason to think that if the reasonable and conciliatory spirit could be restored, the differences between St. John's House and the Committee of Management of the hospital would be arranged, without any necessity for modifying the principles upon which our resident medical officers have been appointed ever since our hospital opened its doors to the sick poor?

I am, &c., LIONEL S. BEALE.

THE COLLEGE OF SURGEONS ELECTION.

LETTER FROM MR. ALFRED BAKER.

[To the Editor of the Medical Times and Gazette.]

SIR,—The requisition signed by so many distinguished Fellows of the Royal College of Surgeons confers a real honour upon, and is very gratifying to me. Under such auspices I cannot hesitate to become a candidate for a seat on the Council of our College, and I desire to express my thanks to the gentlemen who have signed the requisition, and to assure them and the Fellows generally that it will be my effort, if elected, to justify their choice, by regular attendance at the Council meetings, and attention to the duties of the office. I am, &c.,

3, Waterloo-street, Birmingham. ALFRED BAKER.

"*To Alfred Baker, Esq., F.R.C.S., Senior Surgeon to the General Hospital, Birmingham.*

"May 1, 1874.

"Sir,—Feeling that the provincial Fellows of the College are not proportionately or sufficiently represented upon the Council of the College of Surgeons, we trust that you will permit yourself to be nominated for a seat on the Council at the coming election in July. We believe that as a Fellow and Member of the College of long standing, as senior surgeon to a large hospital, and as a past President of the British Medical Association, you are eminently qualified for such a position, and that your election would be acceptable to the Fellows of the College in general, and to the provincial Fellows in particular.—(Signed)—Robert Ceely and J. H. Ceely, Aylesbury; W. E. Crowfoot, Beccles; John Archer, T. H. Bartleet, Samuel Berry, S. A. Bindley, V. W. Blake, Pye H. Chavasse, Dickinson W. Crompton, George H. Evans, W. P. Goodall, Furneaux Jordan, R. Middlemore, John Postgate, Edwin Rickards, Thomas Savage, J. Vose Solomon, Lawson Tait, Thomas Taylor, William Thomas, James F. West, and T. Watkin Williams, Birmingham; William Lockhart, Blackheath; John Cordy Burrows, Knt., Brighton; G. M. Humphry, Cambridge; Edwin Bartleet, Campden; Wm. B. Page, Carlisle; Henry Wyldbore Rumsey, Cheltenham; John Harrison, Chester; Theodore Davis, Clevedon; David Bolton, Nelson C. Dobson, Augustin Prichard, and Charles Steele, Clifton; W. P. Swain, Devonport; J. Muriel, Ely; John Woodman, Exeter; W. H. Folker, Hanley; Charles Lingen, Hereford; R. Rickman Shillitoe, Hitchin; H. Martin Holman, Hurstpierpoint, Sussex; Wm. Roden, M.D., Kidderminster; G. F. Bodington, Kingswinford; J. H. Kimbell, Knowle; R. L. Baker, Leamington; W. R. Jessop, T. Pridgin Teale, and C. G. Wheelhouse, Leeds; T. Paget, Leicester; R. Harrison and W. M. Banks, Liverpool; T. C. Roden, Llandudno; T. Bryant, W. Fairlie Clarke, George Cowell, George Critchett, C. Holthouse, Jonathan Hutchinson, Sydney Jones, W. F. Teevan, Henry Thompson, Knt., W. Domett Stone, and John Wood, London; S. M. Bradley, James Bower Harrison, George Southam, and Edward Lund, Manchester; Daniel Ball, Newcastle; John Morgan Bryan and Frank Buszard, Northampton; W. Cadge and E. Copeman, Norwich; James Beddard, Nottingham; John Whipple, Plymouth; Robert Oxley, Pontefract; George May, Reading; A. Duke, Rugby; D. Henry Monckton; Rugeley; John Charles Hall, Sheffield; A. G. Brooks and Sam. Wood, Shrewsbury; John Wiblin, Southampton; Edwin Morris, Spalding; Thos. Heckstall Smith, St. Mary Cray; Thomas Chavasse, Sutton Coldfield; John Cooke, Tettenhall, Wolverhampton; Fredk. Ed. Manby, Wolverhampton; Herbert W. Budd and David Everett, Worcester; W. D. Husband and W. H. Jalland, York."

REPORTS OF SOCIETIES.

CLINICAL SOCIETY.

FRIDAY, APRIL 10.

PRESCOTT HEWETT, F.R.C.S., President, in the Chair.

MR. CALLENDER read the notes of two cases of Neuralgia. In the first, the affection, which involved a stump, seemed to be due to neuritis connected with symptoms of spinal-cord irritation. The patient had undergone several operations for the relief of his symptoms, such as amputation and the removal of portions of nerve; and, finally, the median nerve was forcibly stretched by pulling it down from the brachial plexus. No local trouble resulted from the operation; the patient was freed from the pain, and the symptoms of spinal irritation ceased. In the second case, the affection of the nerves, giving rise to persistent pain and defective nutrition, was entirely peripheral, and was due to the irritation set up by the entanglement of branches of the ulnar and median nerves in the thickened tissue, resulting from diffused suppuration in the hand. No evidence existed of spinal irritation; and, as the trouble seemed to be dissociated from any central cause, amputation of parts of the hand was resorted to, for the purpose of removing the indurated tissues which compressed the nerves. By this procedure, the patient, who had suffered for nearly two years, and who was admitted to have his arm amputated, was relieved of his pain, and conserved the thumb, index and middle fingers of the hand. In both these cases, details were given of the symptoms, and their influence as determining the treatment was referred to; and, with regard to the stretching of the median nerve, cases were mentioned in which a like treatment had been employed.

Mr. H. LEE said the first case resembled one of his own. A young woman had much pain and stiffness in her arm. The elbow-joint was open, and amputation was performed, but the pain returned in the stump. For this he cut off the ends of the nerves, and again divided them higher up; still the pain persisted. At last the whole arm was removed, but the pain returned in the back. This pain seemed hysterical. Ultimately she did well, but the spine was twisted.

Dr. BUZZARD said there was a point sometimes to be noted between neuritis and hysteria, even when there was no external wound—that was, that the temperature in the axilla on the afflicted side in neuritis was higher than on the other, sometimes as much as a degree.

Mr. MYERS said a relation of his had suffered from enlarge-

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ment of the nerves after amputation. There was no certainty that the pain would be cured by a second operation, and so the patient preferred to suffer. He could hardly understand why stretching did so much good.

Mr. Barwell could not think the condition was neuritis; it must be something else.

Mr. Callender, in reply, said there was no difference in the temperature of the two sides. The question of changes in the nerve and nerve-stretching had been fairly discussed by Billroth and Nussbaum.

Mr. Warrington Haward read notes of a case of Recurrent Tumour of the Breast. A woman, aged sixty-four, had had a tumour removed from the right breast in 1860. It recurred in 1863, and was again removed. In 1867 another large tumour formed, and the whole breast was removed. In the beginning of 1873 a tumour appeared at the outer end of the scar of the last operation, grew to a large size, and ulcerated. The patient was then admitted into St. George's Hospital, and as much of the tumour as was possible removed by Mr. Rouse; but it could not be extirpated, owing to the implication of the chest-wall in the disease. The patient died, and post-mortem the tumour was found to have invaded the intercostal muscles, and projected slightly into the pleural cavity, pushing the parietal pleura before it. The contents of the axilla were natural, and no other disease was found in the body. The new growth was soft and easily broken down, of a pale red colour, interspersed with irregular areas of yellow and rusty-brown colour. Microscopically, it had all the characters of a myeloid tumour. A case of Sir James Paget's was related, of a myeloid tumour of the breast occurring in a member of a cancerous family, in whom, five years after removal of the tumour, a hard cancer of the breast appeared. Reference was also made to another case related in Sir James Paget's "Lectures on Pathology." Thus it was shown that we may have a tumour with all the clinical characteristics of recurrent fibroid, containing myeloid cells; and, secondly, a myeloid tumour, followed, after removal, by a recurrent growth having all the characters of cancer. It was shown also that myeloid tumours frequently exhibited all the signs of malignancy; and that it was an error to assert, as Mr. Gray and others had done, that myeloid tumours are perfectly innocent. Finally, it was urged that, if we would make our definitions of disease practically useful, we must beware of making them too exclusively anatomical; the significance of the anatomical characters needing to be determined by the light of the clinical history.

Mr. Pick said the terms cancer and malignancy were not synonymous. Neither could malignancy be determined by anatomical structure alone. There were various degrees of malignancy in cancerous tumours. He gave two cases in illustration, one of scirrhus lasting many years, another of epithelioma proving speedily fatal. It was quite possible to have a cancerous tumour becoming less and less so, as happened in a case under the care of Mr. Holmes. Here a scirrhous tumour, after repeated removal, tended to become fibrous rather than medullary on recurrence.

Mr. Teevan related four cases of Sterility after Lithotomy. 1. A hall-keeper, aged forty-four, was cut by the lateral operation at a provincial hospital twenty years ago. He married three years afterwards; but his wife, although his junior, had never had a child or a miscarriage. The patient stated that he had no emission during connexion. 2. A painter, aged forty-seven, married when thirty-one years old. Lateral lithotomy was performed on him three years afterwards. His wife bore him two children before, but none subsequently to the operation. He had quite lost the faculty of emission during coitus. 3. A shoemaker, aged forty-five, was cut by the lateral method when two years old. He married when twenty-five; but his wife, although his junior, had had no child or miscarriage. The patient had no emissions during connexion. 4. A shipwright, aged forty-five, had lateral lithotomy performed on him when four years old. He was married when twenty-three, his wife being his junior. She had borne him no family. He had no emission during coitus. The cause of sterility was very clear; for lithotomy, as usually performed, involved a laceration of the floor of the prostatic urethra, and obliteration of the orifices of the ejaculatory ducts. Sometimes the prostate split in the roof, and the infirmity was obviated.

In reply to Mr. Lee, Mr. Teevan explained that the operation on one side affected the other, inasmuch as the tear passed wn the centre of the prostate and usually involved both orifices of the ducts. In reply to the President he said his own experience amounted only to one case where there had been no impotence.

ROYAL MEDICAL AND CHIRURGICAL SOCIETY.

Tuesday, April 14,

Dr. C. J. B. Williams, F.R.S., President, in the Chair.

Dr. W. H. Broadbent communicated a paper by Mr. F. A. Mahomed, "On the Etiology of Bright's Disease and the Pre-albuminuric Stage." Two symptoms are described which indicate a condition of high tension in the arterial system—viz.: 1. Sphygmographic tracings, which possess the following characteristics: (*a*) considerable pressure required to extinguish the pulse; (*b*) prolongation and undue sustension of the tidal wave; (*c*) well-marked percussion; (*d*) small amount of dicrotism. 2. A blue reaction obtained with the guaiacum test for blood, if delicately applied, when no albumen or blood cells can be discovered by the microscope, spectroscope, or nitric-acid test. The mode of procedure, having previously tested reagents and paper employed, is as follows:—(*a*) Dip a slip of white blotting-paper in the urine to be examined; (*b*) evaporate the urine by drying the slip over a spirit-lamp; (*c*) add a drop or two of tincture of guaiacum, and allow time for evaporation; (*d*) add a drop or two of ozonic ether, and allow the paper to become thoroughly dry before the reaction is judged of. It is then shown from cases of so-called "inflammatory Bright's disease," occurring during the convalescence from scarlatina, that the series of pathological events occur in the following order:—1. A poisoned condition of blood: by uric acid or other effete material—as in scarlatina, measles, erysipelas, pregnancy, or a severe chill. 2. Arrest of the action of one of the excretory organs. 3. Increase of tension in the arterial system. 4. Transudation of the crystalloids of the blood through the kidney. (These conditions constitute the pre-albuminuric stage, and are easily remediable.) 5. Albuminuria; followed by dropsy and the usual symptoms of Bright's disease. 6. Changes in the kidney and other excretory organs—namely, intestinal tract and skin—produced by acute, and afterwards prolonged, congestion and high arterial tension—viz., (1) exudation and plugging of tubules or follicles; (2) fatty degeneration and absorption; (3) contraction. Puerperal eclampsia and albuminuria are accounted for by the predisposing condition of high tension in the arterial system which exists during pregnancy. Poisons—such as gout, lead, or alcohol—produce a similar but less intense condition of increased arterial tension and excretory congestion; they also produce chronic changes, though of a different character, their onset being gradual, and not sudden. The first two changes of the acute condition—namely, exudation and plugging of tubules, followed by fatty degeneration and absorption—do not exist; they may, however, at any time be produced, and symptoms of the first stage then supervene. The name "inflammatory Bright's disease" is discussed; the changes are ascribed to "*congestion* under high pressure"; while a condition of inflammation is denied. The term "Bright's disease" is considered too indefinite. A suggestion is made that the terms "acute" and "chronic excretory congestion" are less erroneous than those in general use; while the amyloid and true fatty kidneys are always included in the forms of degeneration to which they each belong.

Dr. Broadbent said he had seen the investigations, and could bear witness to Mr. Mahomed's facts. He regretted that the amount of blueing could not be shown, but its presence was very striking. The paper was very interesting physiologically, as showing the origin of high blood-tension in the capillaries. The arterial thickening seemed defensive, but not sufficiently so, for the blood-matter still escaped. Clinically, too, the research was important, as enabling treatment to begin early. By detecting this stage we could obviate the inflammatory stage by a purge or hot pack—at all events in a good many cases.

Dr. Dickinson said it was important to approach a subject from every possible point of view. His remarks would, however, be made from a different standpoint from those of the author. It was said that many other organs were affected besides the kidney in early Bright's disease, but they were not so easily examined. As regarded purging after scarlatina,

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that was worthy of a trial. The author proposed to combine the large and small kidney under one common title; but in reality they were totally different. True inflammatory change might be preceded by blood-poisoning; but there were other causes for granular kidney. In especial it was clearly hereditary. Thus in one family he knew three died of it before reaching the age of thirty. It was not necessarily due to any blood-poisoning.

Dr. BRUNTON said it was of importance to draw attention to the high blood-pressure in Bright's disease. As for the albuminuria, that was said to be sometimes due to the blood, sometimes to the kidney. We might even have an albuminuria from eating eggs; but that form was not a true albuminuria, but a discharge of ovalbumen by the kidney, which, under ordinary circumstances, serum-albumen will not pass. In mollities ossium there was also a peculiar form of albuminuria, but beyond these it was not dependent on blood-change. It probably depended on some change either in the epithelium or in the bloodvessels. It certainly did not always depend on the epithelium, so that virtually it came to be a question of vascular change, or increased vascular pressure. High tension will not always bring on albuminuria; really we must have some disturbance in the vessels of the kidney as well as generally. Purgatives probably acted by diminishing abdominal tension.

Dr. SIBSON thought the facts were very valuable, and that, too, because they were not too direct. Especially the escape of the crystalloids at an early stage of the disease was very important. Purgatives certainly did lessen tension, but probably did not prevent the advance of Bright's disease. The author spoke of a want of dicrotism, but was not the rise after the notch really considerable? Dr. Grainger Stewart gave cases of fatty kidney with shrinking, but these were not granular kidney; they were quite distinct. Was it well to leap to such conclusions for the sake of nomenclature?

Dr. FOTHERGILL referred to the experiment of tying the aorta below the renal arteries, which was followed by no albuminuria, whilst it promptly followed tying the veins. In chronic Bright's disease, when the heart was big and strong, there was little or no albuminuria; it came on when the heart was weak. Effete products acted on the vaso-motor centres, and so there was high tension.

Dr. DRYSDALE mentioned a case where amenorrhœa seemed to bring on albuminuria.

The PRESIDENT did not consider high tension so important as the author thought. In these cases the urine was scanty and high-coloured. When due to effete matter the condition was remedied by purgatives.

In reply, the author said he had some difficulty in proposing a new name, but he desired to show that the mischief was excretory. There was no guaiacum reaction when the albuminuria depended on venous tension, but only when it was arterial.

MEDICAL NEWS.

UNIVERSITY OF ST. ANDREWS.—The following gentlemen, having passed the required examination, obtained the degree of Doctor of Medicine on April 24:—

Cox, Richard, L.R.C.P.E., M.R.C.S., Theale, Reading.
Ginders, Alfred, L.R.C.P.E., L.F.P.S. Glasg., Normanton.
Gregory, George, L.R.C.P. Lond., L.S.A., Bolton.
Harris, Arthur B., M.R.C.S.E., L.S.A., Falmouth.
Hollings, Robert, M.R.C.S.E., L.S.A., Wakefield.
King, Wm. Talbot, M.R.C.S.E., L.S.A., London.
McCarthy, Denis A., L.R.C.P., Staff Surgeon R.N., Queenstown.
Squire, William, M.R.C.P., M.R.C.S., London.
Thomson, William C., L.R.C.P.E., F.P.S.G., Partick.
Weaver, James, L.R.C.P., L.S.A., Longton.

ROYAL COLLEGE OF SURGEONS OF ENGLAND.—The following gentlemen, having undergone the necessary examinations for the diploma, were admitted Members of the College at a meeting of the Court of Examiners on the 23rd inst., viz.:—

Allden, John Horatio, Woodhouse, near Ely, student of the London Hospital.
Alsop, Thomas Osmond Fabian, Birmingham, of the Edinburgh School.
Birch, Philip, Lichfield, of King's College.
Collins, Charles Edward, Ware, Herts, of University College.
Crespin, Edgar Reginald Legassicke, Torrington-square, of Guy's Hospital.
Dalton, Charles Bernard, L.S.A., Whitehaven, of Guy's Hospital.
De Brent, Mortimer John, Greenwich, of the Westminster Hospital.
Evans, Thomas David Fabian, Birmingham, of the Edinburgh School.
Garland, Albert Isaac, L.R.C.P. Edin. and L.F.P.& S. Glasg., Glasgow, of the Edinburgh School.
Jameson, Hampden Gurney, Clapham-park, of University College.
Moir, Gerald Chetwynd Algernon, Bayswater, of St. Mary's Hospital.
Moorhead, Thomas Robert Hamilton, M.B. Dub., Westbourne-park, of the Dublin School.
Owen, Charles William, L.R.C.P. Lond., Kennington-road, of St. Thomas's Hospital.
Roots, William Henry, Kingston-on-Thames, of Guy's Hospital.
Tyson, William Joseph, Folkestone, of Guy's Hospital.
Utting, John, Hockering, Norfolk, of Guy's Hospital.
Williams, Frederick Mann, New Cross, of the Middlesex Hospital.

Of the 71 candidates examined, 41 were admitted Members of the College; 6 passed in Surgery, and when qualified in Medicine will be admitted to the Membership; 6 were approved in Medicine, but referred in Surgery; 15 were altogether rejected; and 1 allowed to postpone his examination in consequence of illness. In addition to the above, six, having previously passed in Surgery, were examined only in Medicine, and, having passed, were admitted Members of the College.

The following analysis of the other qualifications of the candidates, and those admitted Members at the above meetings, may be interesting:—L.R.C.P. Lond., 3; L.S.A. Lond., 12; M.D. St. Andrews and L.S.A. Lond., 1; M.B. and C.M. Aberdeen, 1; M.B. Edin., 2; L.R.C.P. Edin. and L.S.A. Lond., 1; L.R.C.P. Edin., 3; L.R.C.P. Edin. and L.F.P.& S. Glasg., 1; M.B. Dub., 1; and L.K.Q.C.P. Ireland, 1.

The following gentlemen passed their primary examinations in Anatomy and Physiology at a meeting of the Court of Examiners on the 28th inst, and when eligible will be admitted to the pass examination:—

Bayly, George Sargent, student of University College.
Birt, Louis F. H., of the Charing-cross Hospital.
Buncombe, John Dobree, of University College.
Collins, William Edward, of St. George's Hospital.
Compton, Francis Charles, of St. George's Hospital.
Drewitt, Frederic G. D., of St. George's Hospital.
Duggan, Motherwell, of the Newcastle School.
Ellis, Philip Mackay, of St. George's Hospital.
Emmerson, John Bolton, of the Newcastle School.
Friend, Herbert Edward, of St. George's Hospital.
Gill, John, of St. Thomas's Hospital.
Glanville, Francis F., of St. George's Hospital.
Hay, John Home, of the Edinburgh School.
Jones, Edward Owen, of the Edinburgh School.
Lees, David Bridge, M.A. and M.B. Cantab., of Guy's Hospital.
Mackay, Henry, of the Newcastle School.
Merriman, John W. C., of St. George's Hospital.
Smith, Ernest Sutton, of University College.
Street, Alfred W. F., of St. George's Hospital.
Trafford, John Foster, of University College.
Vasey, James Adams, of St. George's Hospital.
Vasey, Samuel William, of St. George's Hospital.
Watkins, Arnold Hirst, of the Glasgow School.
Watson, Charles Scott, of the Edinburgh School.
Zimmerman, Benjamin Frazier, of St. George's Hospital.

Eleven candidates failed to acquit themselves to the satisfaction of the Court.

The following gentlemen passed on the 29th inst, viz.:—

Apthorp, Edmund Paley, student of St. George's Hospital.
Armstrong, George Richardson, of the Dublin School.
Bain, Alexander, of Guy's Hospital.
Basham, William Richard, of the Westminster Hospital.
Bell, Charles Edward, of Guy's Hospital.
Braithwaite, Samuel, of the Newcastle School.
Brock, Alexander Cameron, of Guy's Hospital.
Clarke, Reginald, of King's College.
Eames, James Crompton, of the Edinburgh School.
Edgelow, Samuel Henry, of St. George's Hospital.
Hare, Edward Herring, B.A. Oxon., of St. Thomas's Hospital.
Harper, Robert Russell, of St. Thomas's Hospital.
Hyne, Frederick Alexander, of Guy's Hospital.
Jones, Charles Conway, of the Bristol School.
Martyn, Ernest, of University College.
Middleton, Charles Frederick, of University College.
Parkinson, Sidney George, of St. Mary's Hospital.
Popert, Adolph Joseph, of the London Hospital.
Richardson, Sidney Langden, of King's College.
Ross, John Hunter, of St. George's Hospital.
Scott, John William, of the Sheffield School.
Sheldon, Thomas Steele, of Guy's Hospital.
Smith, Otto Wien, of the Edinburgh School.
Spokes, Peter Sidney, of University College.
Sutcliffe, William Henry, of the Glasgow School.
Vachell, Herbert Redwood, of King's College.
Wallis, Percy Eversbed, of Guy's Hospital.
Walford, Robert, of University College.
Williams, Edward Hanbury, of Guy's Hospital.

Seven candidates failed at the above examination.

The following passed on the 30th ult., viz.:—

Brock, Charles De Lisle, student of St. Thomas's Hospital.
Collier, Alfred Henry, of the Westminster Hospital.
Cree, Percy Kinburn, of the Middlesex Hospital.
Cripps, Charles Couper, of the Bristol School.
Currie, Andrew Stark, of the Glasgow School.
Cusack, Robert Oriel, of Guy's Hospital.
Druitt, Lionel, of King's College.
Dutton, Edward George, of Guy's Hospital.
Gaisford, Martin, of King's College.
Godfrey, Benjamin George, of University College.
Hume, Frederick Nutcombe, of St. Thomas's Hospital.
Jones, Lewis, of Guy's Hospital.

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Jones, Thomas, student of Guy's Hospital.
Morgan, William, of St. Thomas's Hospital.
Oram, Richard R. W., of Guy's Hospital.
Noott, Henry Curtis, of St. Thomas's Hospital.
Pedley, Thomas Franklin, of Guy's Hospital.
Price, John, of King's College.
Stewart, Frederick George, of Guy's Hospital.
Todd, John, of University College.
Underwood, Arthur Swayne, of King's College.
Whelan, George, of St. Thomas's Hospital.
Wride, Francis George, of St. Thomas's Hospital.
Wright, Henry, of Guy's Hospital.

Twelve candidates failed on this occasion.

APOTHECARIES' HALL.—The following gentlemen passed their examination in the Science and Practice of Medicine, and received certificates to practise, on Thursday, April 23:—

Elliot, John, Bernard-street, Russell-square.
Fitz Rayne, Wm. Allen, Tooley-street, Borough.
Tipple, Edwin, Erith, Kent.
Turtle, James Henry, Medway Priory, Chatham.

The following gentlemen also on the same day passed their primary professional examination:—

Schlesinger, Maurice Martin, St. Mary's Hospital.
Potts, Edward, Queen's College, Birmingham.

At the preliminary examination in Arts, held at the Hall on April 24 and 25, fifty-six candidates presented themselves, of whom twenty-two were rejected, and the following thirty-four passed, and received certificates of proficiency in general education—viz., in the First Class, in order of merit:

1. Shove, Edith.
2. Hoole, Henry.
3. Hunt, Edgar Atlee.
4. Wilkins, Henry J. G.
5. Vinson, Elizabeth.

In the Second Class, in alphabetical order:

Abbott, T. E.	Floyd, John.	Powell, H.
Apthorpe, F. W.	Foggo, Isabella M.	Rorison, Jane R.
Bateman, F. A. N.	Harran, J.	Rubel, J. L.
Batson, W. L.	Harris, J. H.	Savory, Arthur.
Bovill, H. H.	Jennings, F.	Smith, W. F.
Briggs, C. D.	Jones, John.	Thurston, D.
Daniell, C. H.	King, E. E.	Wells, F.
Davies, W. A.	McLaren, Agnes.	Williams, David J.
Earle, L. M.	Megginson, A. M.	Williams, G. F. C.
Evans, J. W.	Megginson, W.	

The Examiners in Arts direct the attention of candidates and their teachers to the answering of the English paper in the current examination: classifying the fifty-six candidates present, according to the merit of their answers to the English paper, the examiners find that forty have done badly, twelve fairly, and only four well. It is noteworthy that of the male candidates only one-fourth, while of the female candidates fixe-sixths, have answered fairly or well.

APPOINTMENTS.

*** The Editor will thank gentlemen to forward to the Publishing-office, as early as possible, information as to any new Appointments that take place.

BARNES, ROBERT, M.D., F.R.C.P.—Consulting Physician for the Diseases of Women and Children to the Hospital for Diseases of the Nervous System, Portland-terrace, Regent's-park.

DUNNAGE, ARTHUR R., M.R.C.S.—Assistant-Surgeon to the Central London Ophthalmic Hospital.

STEELE, FRANK, M.R.C.S. Eng.—Resident Medical Officer to the Bloomsbury Dispensary.

WHITTAKER, JAMES TRAVIS, M.B.—House-Surgeon to the New Eye Infirmary, Glasgow.

MILITARY APPOINTMENTS.

WAR OFFICE.—MEDICAL DEPARTMENT.—To be Surgeons-Generals—Deputy Surgeon-General Charles Alexander Gordon, M.D., C.B., *vice* Sir William Mure Muir, K.C.B., M.D., appointed Director-General of the Army Medical Department; Deputy Surgeon-General William Rutherford, M.D., C.B.

BIRTHS.

HATTIE.—On April 6, at Antigua, the wife of Alexander G. Hattie, M.D., of a son.

VALENTINE.—On March 26, at Jeypore, Rajpootana, India, the wife of Dr. C. S. Valentine, F.R.C.S., Physician to his Highness, the Maharajah, of a daughter.

MARRIAGES.

BENTLEY—CLERIHEW.—On April 23, at St. Barnabas, Kensington, John Edmund Bentley, second son of the late Alfred Compton Bentley, Esq., to Margaret Richardson, eldest daughter of George Clerihew, M.D., Inspector-General of Hospitals, of Addison-gardens, Kensington.

BEVERS—WOOD.—On April 23, at Holy Trinity, Newington, Surrey, Edmund Augustus Bevers, M.R.C.S., L.S.A., of Oxford, to Helen Jane (Ellie), elder daughter of W. Wood, Esq., surgeon, of Union-street and Trinity-square, London, S.E.

BREWER—JONES.—On April 23, at St. James's, Kidbrooke, Alexander Hampton Brewer, L.R.C.P. Lond., M.R.C.S. Eng., L.S.A., of Queen's-road, Dalston, to Louisa Schmoeck, eldest surviving daughter of the late J. D Jones, M.D., of Dalston.

HUGHES—OSBURNE.—On April 18, at St. Edward's Church, Leek, Robert Jaffray Hughes, L.R.C.P., son of the late P. R. Hughes, M.D., of the city of Cork, to Frances, second daughter of John Osburne, Esq., Lindville, co. Cork.

LEDGARD—WINN.—On April 23, at All Souls, Langham-place, Nathaniel Polhill Ledgard, Major H.M. 29th Foot, to Ada Elvira, youngest daughter of James Michael Winn, M.D., 31, Harley-street, Cavendish-square.

NUNN—STACPOOLE.—On April 25, at St. Mary's, West Kensington, Philip W. G. Nunn, L.R.C.P. Lond., M.R.C.S. Eng., of Bournemouth, Hants, to Mary Constance Eliza, eldest daughter of Frederick Stacpoole, Esq., of Vale-place.

WEATHERHEAD—STEELE.—On April 22, at St. Michael's-in-the-Hamlet, Liverpool, the Rev. Robert Johnston Weatherhead, M.A., British Chaplain, Callao, Peru, son of the late Andrew Weatherhead, M.D., H.E.I.C.S., to Anna Bagot, youngest daughter of the late Matthew Steele, Esq., of Demerara, and Seaforth.

DEATHS.

ALLIN, JOHN WESLEY, M.R.C.S., only son of the Rev. John Allin, Pembroke, Wales, at Echuca, Victoria, Australia, on Feb. 20, aged 28.

BARKER, WILLIAM SEARLE, L.S.A., at his residence, Barrow House, near Bury St. Edmund's, on April 20, aged 60.

LIGHTFOOT, ROBERT, M.D., of Newcastle-upon-Tyne, and medical officer in the Dutch Expedition to Acheen, at sea, of dysentery, on his way from Padang to Batavia, on April 20, aged 30.

MANLEY, EDMUND, M.B., at Rydal Mount, Manchester, on April 8, aged 46.

SPICER, RICHARD WILLIAM, F.R.C.S., at Chard, Somerset, on April 25, aged 72.

VACANCIES.

In the following list the nature of the office vacant, the qualifications required in the Candidate, the person to whom application should be made, and the day of election (as far as known) are stated in succession.

ALNWICK INFIRMARY.—House-Surgeon. Candidates must be duly qualified. Applications, with testimonials, to W. T. Hindmarsh, Esq., Honorary Secretary, on or before May 2.

BERKS COUNTY ASYLUM, MOULSFORD, WALLINGFORD.—Assistant Medical Officer. Candidates must be duly qualified. Applications, with testimonials, to Dr. R. B. Gilland, Medical Superintendent.

BRISTOL GENERAL HOSPITAL.—Physician. Candidates must be duly qualified. Applications, with testimonials, to the Secretary, Henry Fox, Esq., R.N.

CROYDON GENERAL HOSPITAL.—House-Surgeon. Candidates must be duly qualified. Applications, with testimonials, to Mr. Roper, Secretary, on or before May 7.

HOSPITAL FOR WOMEN, SOHO-SQUARE.—House-Physician. Candidates must be duly qualified. Applications, with testimonials, to the Medical Committee, on or before May 16.

HULL GENERAL INFIRMARY.—Honorary Physician. Applications, with testimonials, to the Chairman, at the Infirmary.

KILBURN DISPENSARY.—Assistant Resident Medical Officer. Candidates must be duly qualified. Applications, with testimonials, to the Honorary Secretary, 33, Boundary-road, Finchley-road, N.W., on or before May 4.

KING'S COLLEGE HOSPITAL.—Assistant-Physician, Pathological Registrar, and Curator of the Anatomical Museum. For particulars apply to J. W. Cunningham, Esq., King's College, Strand.

KING'S COLLEGE HOSPITAL.—Assistant Dental Surgeon. For particulars apply to J. W. Cunningham, Esq., Secretary, King's College, Strand.

LANCASTER COUNTY ASYLUM.—Assistant Medical Officer. Applications, with testimonials, to the Superintendent.

LINCOLN COUNTY HOSPITAL.—House-Surgeon and Apothecary. Candidates must be M.R.C.S. Eng. and L.S.A., or L.R.C.P. Lond. Applications, with testimonials, to the Secretary, on or before May 4.

ROYAL LONDON OPHTHALMIC HOSPITAL, BLOMFIELD-STREET, MOORFIELDS, E.C.—Curator. Applications, with testimonials, to R. J. Newstead, Secretary, on or before May 4.

ST. THOMAS'S HOSPITAL.—Resident Assistant-Physician. Candidates must be duly qualified. Applications, with testimonials, to the Treasurer, at the office, St. Thomas's Hospital.

UNIVERSITY COLLEGE HOSPITAL.—Resident Medical Officer. Applications, with testimonials, to John Robson, B.A., Secretary to the Council, on or before May 23.

WESTERN INFIRMARY, GLASGOW.—Superintendent. Candidates must be registered medical practitioners. Applications, with testimonials, to the Honorary Secretary, on or before June 15.

WOLVERHAMPTON AND STAFFORDSHIRE GENERAL HOSPITAL, WOLVERHAMPTON.—House-Surgeon. Candidates must be duly qualified. Applications, with testimonials, to the Chairman of the Medical Committee, on or before June 1.

UNION AND PAROCHIAL MEDICAL SERVICE.

*** The area of each district is stated in acres. The population is computed according to the census of 1871.

RESIGNATIONS.

Cranbrook Union.—Mr. W. P. Hollis has resigned the Bevenden District; area 6600; population 1553; salary £43 per annum.

Sleaford Union.—The Sleaford District is vacant; area 26,870; population 7734; salary £50 per annum. Also the Workhouse; salary £30 per annum.

Wellington (Salop) Union.—The Second Northern District is vacant; area 14,698; population 8601; salary £50 per annum. Also the Workhouse; salary £30 per annum.

APPOINTMENTS.

Clifton Union.—Robert G. Fendick, M.R.C.S. Eng., L.S.A., to the Third District.

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Rugby Union.—Fredk. G. Sadd, M.R.C.S., L.S.A., to the Rugby District and the Workhouse.

Romney Marsh Union.—Charles E. Baker, M.R.C.S. Eng., L.R.C.P. Edin., to the New Romney District. Richard R. Daglish, M.R.C.S., L.S.A., to the Workhouse.

Strand Union.—Robert W. Dunn, M.R.C.S. Eng., L.S.A., to the Western District.

Suffolk.—John Wiggin, F.C.S., as Analyst for the Eastern Division of the County.

PRIMARY EXAMINATION AT THE ROYAL COLLEGE OF SURGEONS.—The following were the questions in Anatomy and Physiology submitted to the 181 candidates on the 25th ultimo:—1. Describe the course and relations of the veins which terminate in the inferior vena cava above the junction of the common iliac. 2. Describe the os hyoides; and name the muscles connected to it, specifying the parts of the bone to which each muscle is attached. 3. Mention in their relations to each other the parts seen on removal of the flexor brevis digitorum muscle. 4. Describe the process of growth in a long bone. 5. Describe the wrist-joint and the lower radio-ulnar articulation. 6. Describe the changes produced in air by respiration, and the means by which these changes are effected.

THE Guardians of Lambeth, on Monday, decided to build a new infirmary at a cost of £35,000.

THE LORD BISHOP OF WINCHESTER presided on Wednesday last at the biennial festival of the Royal National Hospital for Consumption located at Ventnor.

IT is proposed to supply the parish of Richmond with water by means of Artesian wells bored into the chalk, at a cost of £28,362. The Select Vestry of Richmond have applied to the Local Government Board for power to borrow the money for the construction of these waterworks, which it is understood will be granted. The parish is now supplied with water from the Southwark and Vauxhall Water Company.

THE Rhyl Convalescent Home was formally opened last week in the presence of a large number of the local gentry and clergy. The proceedings commenced with service in St. Thomas's Church, when the Bishop of Bangor preached; after which a procession was formed, and proceeded to the Home, where another service was held. The building was decorated with choice plants and flowers sent specially from London by the Duke of Westminster.

NOTES, QUERIES, AND REPLIES.

He that questioneth much shall learn much.—*Bacon.*

Mr. George M. Stansfeld is thanked.

Dr. Hogg, Meerut.—By all means let us have it.

Justus.—Dr. S. W. Butler, of Philadelphia, was the founder of the *Philadelphia Medical and Surgical Reporter*. He died on January 6 last, aged forty.

Inquirer.—The operation of stuffing the first wife of Martin von Butchell was performed by Dr. W. Hunter and Mr. Carpenter, in 1775. The preserved remains are in the Museum of the Royal College of Surgeons.

G. P. P.—The late re-election is the fourth time Sir George Burrows has been elected President of the Royal College of Physicians.

Leopold N.—The Senatus Academicus, at Edinburgh, has resolved to petition against Mr. Cooper Temple's Bill for the admission of women to the University, while the Town Council has petitioned in favour of the Bill.

Jasper Buddle.—Yes; it may be considered a curious coincidence that at the last "*pass*" examination for the diploma of Membership of the Royal College of Surgeons, the respective editors of the *Students' Journal* and of the *Guy's Hospital Gazette* passed and were admitted members. Perhaps it may be interesting to know that Mr. William Bates, B.A. Lond., and L.S.A., of Birmingham, the author of the "Biographies of Frazer's Worthies," lately published, was also admitted a member.

Chemicus.—The Association of Sanitary Engineers—an association only recently founded—held a meeting of the home counties district of the Association, at Stratford, on the 21th ult. After inspecting the sewage works in the neighbourhood, and the Phosphate Company's works at Barking Creed, and other places of a similar character, the members dined together, and several practical speeches were made, from which it appeared that although engineers and chemists have been experimenting for years with sewage, no cheap and effective method of getting rid of it without nuisance has yet been discovered.

*** Can any of our readers assist in replying to the following query:—"Will you kindly inform me of the makers of hospital tents or sheds? I am desirous of establishing a small infectious hospital, but do not know where to apply for the article required.—I am, &c., W. C. BARNISH."

Mr. C. H. Leet, Secretary to the Apothecaries' Hall of Ireland.—The subject will receive attention in our next impression.

A Ratepayer.—It is quite time, certainly; nevertheless we are, at length, glad to find that the injustice so long permitted to exist, in respect to the hardship inflicted on the counties of Middlesex, Essex, and Kent, by the large number of lunatics sent home from India, who, being landed in the Thames, were afterwards sent to asylums in those counties, is receiving the attention of the Government.

E. P.—A solution of nitrate of silver seems to be more soothing for swabbing the throat when made by dissolving the nitrate in nitric ether or adding an ounce of nitric or spirit of sulphuric ether to a solution of twenty grains of the nitrate in a drachm of water. Dr. Ringer states that a solution in nitric ether is best as an outward application, because it dissolves the fatty matters in the skin, and so does not run into drops, as a watery solution would. He also says that the ethereal solution acts more powerfully than the watery, and should be only half the strength.

Dr. Davis.—The collection of medical portraits formerly in the possession of Mr. G. J. Squibb now belongs to the Royal Medical and Chirurgical Society. The fine collection of Mr. William Wadd—the nucleus of which was made by the unfortunate Mr. Fauntleroy, the banker, who was hanged at the Old Bailey for *forgery*, in what are called the "good old days when George the Third was king,"—is now in the possession of the Royal College of Surgeons and of Mr. Stone, of the same institution, who has enriched his portion with a great number of autographs of the distinguished originals, including several of the scarce letters of Albinus.

CANCER.

TO THE EDITOR OF THE MEDICAL TIMES AND GAZETTE.

SIR,—The recent discussion on cancer by so many eminent men, reported in your pages, has induced me, as an old practitioner, to make a few remarks which, although adding nothing new, may subserve to give additional weight to some expressed opinions. When a dresser at the Middlesex Hospital under Mr. (afterwards Sir) C. Bell, I of course saw the practice in Whitbread's cancer ward. The belief then entertained was that cancer was very liable to return in other parts after operation. Several nostrums, called cures, were permitted to be tried, but with no success. Many cases pronounced cancer of the breast were not so, and disappeared under the use of setons or iodine. Hard misshapen lumps beneath the integument, and movable, can scarcely be mistaken, nor cancer of the rectum and uterus. Some time ago I removed from the anus of a patient several large warts which impeded defæcation; a year afterwards carcinoma appeared in the groins, when I referred the case to two distinguished surgeons, whose plasters evidently hastened open cancer, ending in death. A lady who had consulted eminent men in Dublin and London, for enlarged breast ending in open cancer, evidently with the applications of warm hemlock cataplasm hastened on the disease. My own impression has been that the repressive topical treatment by cold, simple, and soothing means, and attention to the general health, have been best for incipient or open cancer. Not long since I was attending a case of general enlargement and some hardness of the breast, which ended in suppuration and got well. Some little time after, the other breast took on a similar enlargement, and was treated the same without the same effect, going on to open cancer. Here I would like to know what was the cause of difference in the two breasts? was the cancer-cell in the second and not in the first, or formed at a particular stage in the second? whether we must attribute any influence to a change in the blood, or a change in the action of the formative secreting apparatus; or whether the change from the vital chemistry, producing commonly natural and healthy products of structure, is the effect of alteration in blood and secreting agency conjointly—as in tubercle, cancer, etc.? The cancer diathesis—can it be denied? Certain parts are commonly affected, as in gout and many complaints in family circles especially, while the multitude exposed to the same influences altogether escape. I would also beg to allude to the practice of a few members of the profession, who advocate the removal of enlarged breasts before becoming open cancer, by applications causing gradual sloughing, layer after layer, in preference to excision, and in cases where operation could not be done. I have followed one case of this kind, so as to watch the treatment, which was a protracted misery and torture. I could not have expected the sufferer to pass through, but to my astonishment the patient has now the great surface-sore, exposed with exfoliation of part of the sternum, nearly healed over. The question arises, Does this mode of treatment prevent a return, or more so than the usual operation, when applicable? Statistics are required.

Nailsworth, April 25. I am, &c., THOMAS STOKES.

COMMUNICATIONS have been received from—

Mr. R. S. GUERNSEY, New York; Surgeon-Major HOGG, Meerut; Mr. BLACKETT, London; Mr. T. STOKES, Nailsworth; Dr. E. B. GRAY, Oxford; Mr. HENRY SEWILL, London; The Rev. A. J. D. D'ORSEY, London; OUR EDINBURGH CORRESPONDENT; The Rev. Dr. HAUGHTON, Dublin; Mr. E. MORGAN, London; THE HONORARY SECRETARIES OF THE MEDICAL SOCIETY OF LONDON; Dr. VALENTINE, Jeypore; Dr. BARNES, London; Mr. H. LAWTON, London; Mr. GELL, Birmingham; Mr. HOLLOWAY, Peckham; Mr. A. BAKER, Birmingham; THE ROYAL COMMISSIONERS OF THE EXHIBITION OF 1851; Mr. BENJAMIN VINCENT, London; Mr. CALL, Dublin; Mr. R. T. LIGHTFOOT, Newcastle-on-Tyne; Mr. A. B. STEELE, Liverpool; Dr. J. WESTMORELAND, Manchester; Mr. T. P. PICK, London; THE SUB-DEAN OF CHARING-CROSS HOSPITAL; Mr. R. WALKER, Aberdeen; Mr. BARNISH, Wigan; Dr. J. N. VINEN, London; Dr. EUSTACE SMITH, London; Dr. HENRY THOMPSON, London; Mr. W. SPENCER WATSON, London; Mr. J. CHATTO, London; Mr. W. W. REEVES, London; Messrs. BRAND and Co., London; Mr. A. R. DUNNAGE, Leeds; Mr. J. T. WHITTAKER, M.B., Glasgow; Mr. HENRY HOLL, London; Messrs. FAIRLESS and BEEFORTH, London; Mr. G. EASTES, London; Dr. C. BELL, Edinburgh; Dr. A. MARTIN, Stonehaven; Mr. H. FOX, Briston; Mr. R. HORDLEY, Stoke-on-Trent; Dr. VALENTINE, Jeypore.

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BOOKS AND PAMPHLETS RECEIVED—

Bulletins et Mémoires de la Société Médicale des Hôpitaux de Paris—Brittan on Blood Diseases and Blood Germs—British Narcotism—Bentley on the Characters, Properties, and Uses of Eucalyptus Globulus—Bennet's Recherches sur le Traitement de la Phthisie Pulmonaire—Baillière, Tindall, and Cox's Case-Book—Halton's Short Lectures on Sanitary Subjects—Handbuch der Staats-Arzneikunde, von Professor L. Krahmer—Buzzard on the Clinical Aspects of Syphilitic Nervous Affections—Tait on the Medical Education of Women—Elective Charities and their Opponents—Epps on a Case of Stone in the Bladder.

PERIODICALS AND NEWSPAPERS RECEIVED—

Lancet—British Medical Journal—Medical Press and Circular—Nature—Allgemeine Wiener Medizinische Zeitung—Berliner Klinische Wochenschrift—La France Médicale—Le Progrès Medical—Students' Journal and Hospital Gazette—Pharmaceutical Journal—La Tribune Médicale—Gazette des Hôpitaux—Gazette Hebdomadaire—Bulletin de l'Académie de Médecine—Gazette Médicale—Glasgow News—Saunders's News-Letter—The Colonial Standard and Jamaica Despatch—Centralblatt für Chirurgie.

APPOINTMENTS FOR THE WEEK.

May 2. Saturday (this day).

Operations at St. Bartholomew's, 1½ p.m.; King's College, 2 p.m.; Charing-cross, 2 p.m.; Royal Free, 9 a.m. and 2 p.m.; Hospital for Women, 2½ a.m.; Royal London Ophthalmic, 11 a.m.; Royal Westminster Ophthalmic, 1½ p.m.; St. Thomas's, 2½ a.m.

Royal Institution, 3 p.m. Prof. Seeley, "Age of French Revolution."

4. Monday.

Operations at the Metropolitan Free, 2 p.m.; St. Mark's Hospital for Diseases of the Rectum, 2 p.m.; St. Peter's Hospital for Stone, 3 p.m.; Royal London Ophthalmic, 11 a.m.; Royal Westminster Ophthalmic, 1½ p.m.

Medical Society of London, 8 p.m. Annual Oration and *Conversazione*. Oration by Mr. R. Brudenell Carter, "On the Waste of Life by Preventable Diseases."

Odontological Society, 8 p.m. Casual Communications. Mr. Thomas Bryant, "On Dentigerous Tumours of the Jaws."

Royal Institution, 2 p.m. General Monthly Meeting.

5. Tuesday.

Operations at Guy's, 1½ p.m.; Westminster, 2 p.m.; National Orthopædic, Great Portland-street, 2 p.m.; Royal London Ophthalmic, 11 a.m.; Royal Westminster Ophthalmic, 1½ p.m.; West London, 3 p.m.

London Anthropological Society, 8 p.m. Meeting.

Pathological Society, 8 p.m. Dr. Wickham Legg—1. Xanthelasma Multiplex; 2. Sarcoma of the Stomach. Dr. Peacock—1. Dissecting Aneurism of Aorta; 2. Perforation of Bowel in Typhoid Fever; 3. Malformation of the Heart. Sir William Jenner—Specimens from a Case of Leucocythæmia. Mr. Howard Marsh—Hydatids of the Spermatic Cord. Mr. Nunn—Tumour which was attached to the Cervical Vertebræ. Dr. Goodhart—1. Fibroma of the Ovary; 2. Cancer of Uterine Mucous Membrane, secondary to Cancer of Ovary. Dr. Hilton Fagge—1. Fibroid Disease of the Heart, with Gelatiniform Degeneration and Pericarditis; 2. Repaired Fracture of the Sternum; 3. A Bladder several years after Lithotomy. Mr. McCarthy—Ulcer of Duodenum from a Case of Death by Burning. Mr. Norton—Syphilitic Gummatous Tumour of Larynx. Dr. Leared—Bothriocephalus Latus. Dr. Squire—False Membrane from the Sputum of a Case of Herpetic Catarrh. Dr. Fletcher Beach—1. A Bladder with a Pouch communicating with a Third Ureter; 2. Brain, Heart, and Trachea, showing absence of Thyroid Gland in a Cretin. Dr. Morell-Mackenzie—1. Growths from Larynx and Trachea; 2. Bronchocele in a Dog.

Royal Institution, 3 p.m. Prof. Rutherford, "On the Nervous System."

6. Wednesday.

Operations at University College, 2 p.m.; St. Mary's, 1½ p.m.; Middlesex, 1 p.m.; London, 2 p.m.; St. Bartholomew's, 1½ p.m.; Great Northern, 2 p.m.; St. Thomas's, 1½ p.m.; Samaritan, 2½ p.m.; King's College (by Mr. Wood), 2 p.m.; Royal London Ophthalmic, 11 a.m.; Royal Westminster Ophthalmic, 1½ p.m.

Obstetrical Society, 8 p.m. Dr. Godson will show a remarkable Specimen. Dr. Copeman (of Norwich), "On Consultation Midwifery in Private Practice." Dr. Bassett, "On the Propriety of Administering Iron during Pregnancy, as a Preventive of Post-Partum Hæmorrhage." Dr. Tilt, "On Lymphangitis in Pelvic Pathology." And other Communications.

Royal Microscopical Society, 8 p.m. Mr. H. J. Slack, "On certain Silica Films artificially produced."

7. Thursday.

Operations at St. George's, 1 p.m.; Central London Ophthalmic, 1 p.m.; Royal Orthopædic, 2 p.m.; University College, 2 p.m.; Royal London Ophthalmic, 11 a.m.; Royal Westminster Ophthalmic, 1½ p.m.

Harveian Society (Special Meeting of Council, 7½ p.m.), 8 p.m. Mr. J. R. Lane, "On a Case of Aneurismal Dilatation of the Occipital Artery, treated by Ligature of the Common Carotid."

Royal Institution, 3 p.m. Mr. W. Noel Hartley, "On the Atmosphere and its Relations to Life."

8. Friday.

Operations at Central London Ophthalmic, 2 p.m.; Royal London Ophthalmic, 11 a.m.; South London Ophthalmic, 2 p.m.; Royal Westminster Ophthalmic, 1½ p.m.; St. George's (ophthalmic operations), 1½ p.m.

Clinical Society, 8½ p.m. Mr. Cripps, "On a Case of Palmar Aneurism." Mr. Callender (for Dr. Hollis) will describe and exhibit "The Sarcotome." Dr. H. Weber, "On Cases illustrating the Communicability of Consumption from Husband to Wife." Dr. Donkin, "On a Case of Diabetes treated by Skim-Milk."

Royal Institution (Weekly Evening Meeting, 8 p.m.), 9 p.m. Mr. Sedley Taylor, "An Historical Enigma in the Trial of Galileo before the Inquisition."

VITAL STATISTICS OF LONDON.

Week ending Saturday, April 25.

BIRTHS.

Births of Boys, 1211; Girls, 1162; Total, 2373.
Average of 10 corresponding years 1861-73, 2203·3.

DEATHS.

	Males.	Females.	Total.
Deaths during the week	680	620	1300
Average of the ten years 1864-73	748·7	712·7	1461·4
Average corrected to increased population	...	...	1608
Deaths of people aged 80 and upwards	...	...	52

DEATHS IN SUB-DISTRICTS FROM EPIDEMICS.

	Population, 1871.	Small-pox.	Measles.	Scarlet Fever.	Diphtheria.	Whooping-cough.	Typhus.	Enteric or Typhoid Fever.	Simple continued Fever.	Diarrhœa.
West	561359	...	11	...	...	4	...	...	1	3
North	751729	1	7	3	1	15	1	2	3	1
Central ...	334369	...	7	6	1	4	1	2	2	2
East	639111	...	6	8	...	13	2	1	1	...
South	967692	1	8	5	1	19	3	1	2	6
Total	3254260	2	30	22	3	55	7	6	9	12

METEOROLOGY.

From Observations at the Greenwich Observatory.

Mean height of barometer	29·939 in.
Mean temperature	57·6°
Highest point of thermometer	79·7°
Lowest point of thermometer	41·2°
Mean dew-point temperature	49·4°
General direction of wind	W.S.W.
Whole amount of rain in the week	0·00 in.

BIRTHS and DEATHS Registered and METEOROLOGY during the Week ending Saturday, April 25, 1874, in the following large Towns:—

Boroughs, etc. (Municipal boundaries for all except London.)	Estimated Population to middle of the year 1874.*	Persons to an Acre. (1874.)	Births Registered during the week ending April 25.	Deaths Registered during the week ending April 25.	Temperature of Air (Fahr.) Highest during the Week.	Lowest during the Week.	Weekly Mean of Mean Daily Values.	Temp. of Air (Cent.) Weekly Mean of Mean Daily Values.	Rain Fall. In Inches.	In Centimetres.
London	3400701	45·1	2373	1300	79·7	41·2	57·6	14·22	0·00	0·00
Portsmouth ...	120436	26·8	79	41	...	...	...	...	0·00	0·00
Norwich	82257	11·0	54	46	74·5	42·0	55·4	13·00	0·00	0·00
Bristol	192889	43·3	149	80	74·1	44·7	55·4	13·00	0·00	0·00
Wolverhampton ...	70896	20·9	59	40	75·4	41·7	56·1	13·39	0·00	0·00
Birmingham ...	360892	43·0	282	169	75·0	41·7	55·5	13·05	0·03	0·08
Leicester	106202	33·2	78	39	78·0	43·2	57·8	14·33	0·00	0·00
Nottingham ...	90894	45·5	77	41	78·0	41·9	56·0	13·33	0·02	0·05
Liverpool	510640	98·0	382	274	71·2	45·0	55·0	12·78	0·00	0·00
Manchester ...	355329	82·8	273	197	77·3	43·0	57·0	13·89	0·00	0·00
Salford	133068	25·7	119	75	74·0	41·9	55·1	12·83	0·01	0·03
Oldham	86281	18·5	68	52	69·5	...	...	...	0·00	0·00
Bradford ...	163056	22·6	136	86	73·8	42·0	54·3	12·39	0·01	0·03
Leeds	278798	12·9	209	144	...	...	...	...	...	...
Sheffield	261029	13·3	245	145	74·7	40·7	55·7	13·16	0·00	0·00
Hull	130996	36·0	105	55	74·0	33·0	52·7	11·50	0·00	0·00
Sunderland ...	104378	31·6	73	43	...	...	...	...	...	...
Newcastle-on-Tyne	135437	25·2	94	72	71·C	42·0	52·6	11·44	0·00	0·00
Edinburgh	211691	47·8	127	102	...	...	...	...	...	...
Glasgow	508109	100·4	462	301	64·7	37·2	53·4	11·89	0·05	0·13
Dublin	314666	31·3	177	167	70·2	37·6	54·3	12·39	0·01	0·03
Total of 21 Towns in United Kingdm	7618655	36·6	5621	3469	79·7	33·0	55·2	12·89	0·01	0·03

At the Royal Observatory, Greenwich, the mean reading of the barometer last week was 29·93 in. The lowest was 29·78 in. on Tuesday afternoon, and the highest 30·01 in. on Wednesday evening and on Saturday morning.

* The figures for the English and Scottish towns are the numbers enumerated in April, 1871, raised to the middle of 1874 by the addition of three years and a quarter's increase, calculated on the rate which prevailed between 1861 and 1871. The population of Dublin is taken as stationary at the number enumerated in April, 1871.

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ORIGINAL LECTURES.

ON TAPPING THE CHEST.

By T. CLIFFORD ALLBUTT, M.A., M.D. Cantab.,
Physician to the Leeds General Infirmary, Leeds Dispensary, and Leeds Fever Hospital.

While, on the one hand, the complexity of the conditions under which we work is seen in the difficulty of attaining any certainty of opinion on so definite a matter as that of tapping the chest, on the other hand we may hope for more certainty on this than on many other matters more complex still, and may thus justify a somewhat restless discussion of it. It is good for us to ascertain, so far as we can, what points are decided, what points are decided in part, and what points are still open to discussion. I will set out the subject under the following heads:—

1. What are the difficulties of diagnosis?
2. Under what circumstances is operation needed?
3. What mode of operation is best?

As to the first question, I hardly think that the difficulties of diagnosis are recognised by us with sufficient clearness. In order that I may not found this statement upon mere impressions of my own, I turn to Dr. Roberts' "Handbook of Medicine"—a work just issued, which is well compiled, and of which the chapters on the organs of the chest are not behind the rest of the book, to say the least of them. Let me take from page 505 Dr. Roberts' diagnosis of pleural effusions. His points are as follows:—

1. Enlargement of the side (which he admits is often absent), with flattening of the spaces,—which I venture to say is often absent, or which, if present, is quite as likely to occur under other circumstances—*e.g.*, of intra-thoracic tumour. Cyrtometric measurements, again, are very untrustworthy in persons whose ribs are hard and whose cartilages are ossified.
2. Diminished movement. (This is equally true of intra-thoracic growths.)
3. Vocal fremitus.
4. Fluctuation. (This is a mere curiosity, and is generally absent.)
5. Dulness of percussion. (This, of course, has no distinctive value.)
6. Absent or feeble breath-sounds. (As little distinctive as the foregoing.)
7. Friction sounds. (Rarely present in effusion of any degree.)
8. Vocal resonance and ægophony. (Both variable and untrustworthy signs, and often absent.)
9. Displacement of organs. (A consequence also of encroachment by any intra-thoracic growth.)
10. Succussion. (Which of course is only looked for under special circumstances.)

No. 3 (vocal fremitus) is the only sign, then, to which we can look for any real help in cases where we have to decide between pleuritic effusion, aneurism, intra-thoracic cancer, or pleural hydatid. Practically, aneurism is usually betrayed by other signs; and hydatid, when it occurs, may be treated as a fluid effusion. But between intra-thoracic growths and effusion the diagnosis is often difficult, sometimes impossible. Suppose, for instance, the growth to start from the root of the lung and to compress the lung from below upwards, and so invade the whole side of the chest; how are we to distinguish it? In such cases vocal fremitus may help us if the bronchial tubes are not wholly occluded; but in the first place they often are, and in the second place vocal fremitus is of no use in feeble persons or in persons whose voices are hoarse or whispering,—and such conditions are common enough. That these difficulties are not merely speculative my own experience abundantly testifies. Not to speak of pneumonic consolidation, three times at least I have been distinctly wrong in diagnosing pleural effusion when intra-thoracic tumour was present, and many times my doubts have only been removed by the results of exploration. Pleuritic effusion, be it remembered, will occur often enough in middle-aged and cachectic persons, and in them the previous history is of little use. Nor is it so simple as hospital practice would teach, to make explorations. To tap the chest is to the sensitive persons we meet in private practice an "operation," and a "dry tapping" is so far a failure, however good may be the operator's collateral skill in "putting things." To tap the chest requires, of course, certain preparations for the reception of fluid should this be present; and although surgeons may call it painless, I have seen few patients who have borne it without much wincing. In these difficulties Dr. Ringer's use of the hypodermic syringe seems to me to be a very great help. It may not be new to others, but to me it is quite new, and a very happy suggestion. But let it be remembered that one puncture may not decide the matter. Even when fluid is present it may not appear at first, and to give a diagnosis of cancer after one dry puncture might be a sad blunder, as the following case will show:—

In the early part of 1873 I saw the Rev. Mr. M. with Dr. Blythman, of Swinton. His age was sixty-two, and he had been a very vigorous man up to some eight weeks before Dr. Blythman's attendance. Being unaccustomed to care of his health, he had neglected to call in any help, and on Dr. Blythman's first visit the left side of the chest was almost wholly dull. Shortly afterwards we met in consultation, and we had to decide between pleuritic effusion and cancer. Cachexia, loss of flesh, time of life, and some points in family history made cancer not improbable. His voice was loud and firm, and vocal fremitus was absent over the dull region. We pronounced in favour of fluid, and, as tapping was dreaded by the family, we determined upon a course of medicine. I have long taught that the results of the treatment of important pleuritic effusions by medicine are very bad, and I regret that we did not at once overbear the timidity of Mr. M.'s wife and daughters. As the patient lived far away from Leeds, an interval of perhaps three weeks elapsed before we met again; we then arranged to tap the chest, but again some little time elapsed before we met for the purpose. Weiss's newer aspirator was used. The operation was an anxious one, on account of the patient's position in life and of the solicitude of a large family, so that our embarrassment was great when no fluid followed the puncture. Dr. Blythman had inserted the needle in the axillary line between the seventh and eighth ribs, and he now cleared the needle repeatedly, and altered its depth and inclination, but to no purpose. He then removed the needle, and reinserted it with a sharp plunge, but to no purpose. This was a *mauvais quart d'heure* for both of us, not to mention the patient. We now rapidly reconsidered the history and the symptoms, and determined to operate again. Dr. Blythman accordingly made an incision through the muscles of the back, and inserted the trocar about two inches below the spine of the scapula. To our relief, serum flowed, and about four pints were removed. The heart, which had been much displaced and embarrassed, was relieved, and the patient did well for a time. The chest, however, refilled, and two or three weeks later the patient died suddenly of syncope the day before I had arranged to meet Dr. Blythman again with the view of repeating the operation. Without a good deal of firmness on one part, and of generous confidence on the other, the first puncture would not have been repeated, and the patient would have died under a diagnosis of cancer.

Did space permit I would record a case in which the converse state existed. A boy, aged twelve years, was tapped for me by my colleague, Mr. Jessop, under the unhesitating belief of us both that there was pleuritic effusion. The history was not unlike gradual effusion; it was left-sided, the heart was displaced, the spaces were flattened, there was no vocal fremitus, and the absence of breathing was from below upwards. We tapped unsuccessfully several times, and the post-mortem revealed a large malignant growth springing from the spine. Operation apart, diagnosis in this case was simply impossible. The cases in which diagnosis between pneumonic consolidation and pleuritic effusion proved far from easy are of course more numerous; and if breath-sounds are absent towards the base, as may be the case, and if at the same time vocal fremitus cannot be obtained anywhere in the chest on account of illness or defective voice, then nothing less than Dr. Ringer's syringe will suffice for a decision. But this is unfortunate, for, in private practice, not young ladies only, but others also, will think it strange that a physician cannot make up his mind without plunging an instrument into their chests. I must not be delayed, however, by these considerations any farther than to refer to page 416 of Dr. Ringer's essay (*Practitioner*, December, 1873), where he makes mention of difficulties of diagnosis between effusions and some forms of chronic phthisis.

It is to be hoped, therefore, that teachers will beware of speaking too confidently of the ease of distinguishing pleuritic effusions before students, who, at the outset of their own experience, may be dismayed by an unexpected dilemma. Upon the second head, when operation in hydrothorax is required, writers are fairly agreed. It is agreed that when effusions are small

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they are to be left alone unless a small purulent effusion should disturb the general health. In this case it should be removed at once. Larger effusions, whether serous or purulent, should be removed at once, as they threaten both life and lung. The recorded results of the medicinal treatment of such effusions are very bad; while those of operative treatment are good, or, indeed, excellent. This doctrine has been slowly established, but now is fairly acknowledged by all men of experience. I believe that the dyspnœa (said to be a sign of the needed interference) is chiefly cardiac, and in some cases is due to displacement of that organ, and in others to an overloading of the right heart, so that the severe symptoms of a rapidly increasing effusion are very like those of clot in the right heart. The cases in which delay is least excusable are the rapid and degenerating effusions of phthisical constitutions; while, on the other hand, rheumatic effusions often vanish quickly of themselves. This is fortunate, as the commonest kind of pericardial effusion is rheumatic.

I remember being called to assist in the illness of a young man at Halifax, under the care of Mr. Smith, of that town, and Mr. Joseph Teale, formerly of Leeds. He had acute rheumatism, with effusion into both pleuræ and into the pericardium, and his life was in imminent danger. In my own mind I preferred to tap the pericardium, but it seemed scarcely fair to throw the responsibility of carrying out my own plan upon Mr. Smith. So we agreed to tap the left pleura, which was dull up to the spine of the scapula, while the right was dull only up to the angle of that bone. About a pint of rapidly clotting serum was drawn off, and sufficient relief was obtained for the time. Next day the other effusions showed signs of subsidence, and before long had so disappeared that no farther interference was needed. The operation could scarcely have influenced the other two cavities.

The effusions which occur in heart or kidney disease, again, do not press for immediate interference, for though they do not readily recede, they generally increase slowly, and do not tend so much to harm the lung. Pyæmic effusions, on the contrary, increase rapidly, and being, of course, purulent, should be removed on the instant of discovery. Too often, however, they will recur as soon as removed. We must operate quickly, then, in rapid serous effusions of a non-rheumatic kind and in all purulent effusions. Rheumatic effusions must be watched carefully, and drawn off if they do not recede. Simple dropsies and the effusions of common acute pleurisy may be left for a while, and tapped if they assume any proportions or remain for some time without diminution. For instance, I should tap any non-rheumatic effusion which fills the chest up to the spine of the scapula, or which displaces the heart; if rheumatic I should watch it for a few days, and tap it if persistent. Smaller effusions, whether dropsical or sub-inflammatory, I should certainly tap if after a fortnight they showed no signs of subsidence.

(*To be continued.*)

COMMENTARIES ON DISEASE IN CHILDREN.

By EUSTACE SMITH, M.D. Lond.,
Physician to H.M. the King of the Belgians,
Physician to the East London Children's Hospital,
Assistant-Physician to the Victoria-park Hospital for Diseases of the Chest.

Lecture V.—Acute General Tuberculosis (Granulia).

(*Concluded from page* 472.)

In the following illustration the tuberculosis supervened upon long-standing disease of bone:—

Robert T., aged 8½ years, had been as an infant the subject of rickets, and could not walk before the age of three years. He was never a strong boy, and had always perspired profusely about the head at night. The parents were in bad circumstances, and for some months his diet had been poor and insufficient. On October 22 he had a rigor, followed by thirst, hot skin, sore throat, and slight delirium. This attack lasted three days. On October 27 he complained for the first time of pain in the left hip, and was admitted into the East London Children's Hospital, under the care of Mr. Reeves. An abscess soon formed at the seat of pain. It was opened, and a large quantity of offensive pus escaped. After the operation the abscess did not heal up, but continued to discharge; the boy's health remained poor, and he lost flesh considerably. For some time the temperature was high, varying from 100° to 102·6° in the evening, but in the middle of November it became natural, and remained so until January 10, when it rose again to 103·6°. From this time it was permanently elevated, rising in the evening to from 101° to 104°, and sinking to 99° in the morning. No disease could be detected in the bones of the hip, but the periosteum over the left trochanter sloughed off, leaving the bone exposed. There was considerable discharge from the wound, and the boy still wasted and looked weak and ill. He had no rigors, rapid fluctuations of temperature, or other signs of pyæmia. The spleen, however, was noticed to be enlarged. Examination of the chest was frequently made, but resonance was normal, and a faint sibilant wheeze caught occasionally towards the end of inspiration was the only abnormal sign to be detected. The patient continued in much the same state, with a high temperature but a very trifling cough, and getting thinner and thinner, until August 16, when he complained of frontal headache, and vomited several times. The bowels were confined, and his pulse was noticed to be slow.

On the following day he had a convulsive fit. The temperature that evening was 101·2°. During the three following days he had as many as twenty fits, which involved both sides of the body. The boy's intellect seemed also affected; he talked incoherently, and his sight appeared to be impaired. Albumen was found in the urine.

After the fourth day the fits were not repeated, but the patient seemed much exhausted, and he passed gradually into a comatose state, in which he died on August 23.

A few days before death the temperature of the body fell to a point below the ordinary level of health, and remained low until the end.

In this boy the tubercular disease was found to be very widely distributed. Grey granulations were discovered in the brain, pia mater, lungs, peritoneum, liver, and spleen. The latter organ was enlarged to about three times its natural size, and seemed to consist of little more than masses of tubercle. The mesenteric glands were large, cheesy, and adherent to one another. The cervical and bronchial glands were also enlarged and cheesy. The ventricles of the brain contained much fluid, and there was a small tubercular tumour of the size of a filbert attached to the upper surface of the right lobe of the cerebellum. On examination of the left hip the great trochanter was found to be extensively necrosed, and to be entirely separated from the rest of the bone. The tubercular attack in this case must be dated from January, when the temperature became permanently elevated. From that time the course of the disease was very suspicious of tuberculosis, although the trifling amount of cough, and the almost complete absence of physical signs about the chest, induced some hesitation in making the diagnosis.

A case such as the above, seen for the first time towards the end of the disease, might be easily mistaken. A young practitioner finding frequent convulsive attacks, combined with albumen, and perhaps a few blood-casts, in the urine, might be excused if from such symptoms he inferred the presence of Bright's disease with uræmic convulsions. Such a diagnosis might, however, be corrected by noting the extreme emaciation, the absence of œdema or of urinous odour from the breath, and by inquiring into the general history of the case, especially remarking the absence of any history of scarlatina. Still, in some of these cases œdema is present, but it is never so general or in such quantity as to conceal the wasted condition of the body. Upon this, therefore, the absence of urinous odour, and upon the history of the case, the diagnosis would chiefly depend.

The diagnosis of acute tuberculosis presents many difficulties. So long as the disease is general, its symptoms are indefinite, and present no characteristic features by which the nature of the complaint can be immediately recognised. Even when other and local symptoms have arisen, showing direct implication of special organs, the new phenomena, being merely the result of familiar tissue-changes excited by the presence of the grey granulation, have no such unmistakable character that their constitutional origin can be at once detected.

Acute tuberculosis begins insidiously, creeping upon the child by slow degrees. Nutrition is impaired almost imperceptibly, and there is no startling symptom of ill-health to arrest attention and excite the anxiety of the friends. When at last the state of the patient has attracted observation, the causes of wasting in young children—in infants especially—are so numerous, that out of the many morbid conditions which may give rise to a similar group of symptoms, the

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detection of the exact source of evil is often far from being an easy task. In all such cases the thermometer is of the utmost service, for a continued low temperature in the evening is incompatible with tuberculosis. Therefore, in all infantile diseases accompanied by wasting, tuberculosis may be excluded if the evening temperature be normal for several days in succession. On the other hand, the temperature in a wasting infant may be high without the case being necessarily one of tuberculosis. Aphthæ of the mouth and inflammation of the gums are common complications in children suffering from abdominal derangements, and cause for the time a considerable amount of fever. So also in dentition, which is active at this period, the bodily heat is much increased. Dentition, indeed, is sometimes a cause of great and groundless anxiety. It is often accompanied by a certain amount of catarrh of the stomach, which interferes temporarily with nutrition, and which, if the process be a long one, may induce a very evident diminution in the weight of the body. If several teeth be cut in succession, the temperature may remain high for a considerable time, and continued wasting with fever may excite serious doubts as to the nature of the ailment. It is, then, of very great importance to exclude other causes of pyrexia in every case of suspected tuberculosis, and in infants the mouth and gums should always be examined. We may, however, get a hint as to the nature of the case by noticing the height to which the mercury rises. In uncomplicated tuberculosis the temperature is seldom at first over 102° in the evening, and it falls notably towards the morning; while in dentition, when the gums are much inflamed and swollen, a temperature of 104° or 105° even in the morning is far from uncommon.

In older children, in cases where the symptoms remain for a considerable time indefinite, the most prominent among them being wasting with pyrexia, the diagnosis lies between tuberculosis and enteric fever.(a) The resemblance between these two diseases is often exceedingly close, more especially on account of the state of the bowels. A slight diarrhœa is common in acute tuberculosis; and looseness of the bowels is, as is well known, a main symptom in enteric fever. But in children suffering from the latter disease diarrhœa does not always assume the obstinate character which is so common a feature in the adult. Hæmorrhage from the bowels is rarely seen, and often for several days in succession the number of the stools may be normal, and their character little altered from a state of health. The difficulty of diagnosis is increased by the slight severity of the other symptoms in many cases of typhoid fever in children. The patient is feverish, loses flesh, and his strength is considerably reduced. The headache, however, is insignificant, the tongue moist, the diarrhœa mild, the belly not much swollen, and pressure in the iliac fossa causes little or no pain. The child sleeps well at night, without delirium, and he shows no unwillingness to take food. Such a case, which would in former days have been classed under the heading of remittent fever, is often very perplexing. The temperature is, however, higher than that common to tuberculosis, reaching to 104° or 105°. On careful examination, too, we can perhaps discover a few of the characteristic rose-spots upon the belly, chest, or back. Still, the eruption is not unfrequently absent, but the condition of the spleen seldom fails to furnish an important indication. In tuberculosis it is rarely enlarged until the disease is far advanced; while in typhoid fever, as early as the end of the first week, it may be felt to project inwards towards the middle line from under the cover of the ribs. The aspect of the child also supplies information which should not be neglected. In tuberculosis the features are pinched, and the face often wears an expression of distress which is out of all proportion to the actual severity of the symptoms. In typhoid fever, on the contrary, unless the disease be very severe, the facies is little altered. In grave cases the countenance may assume different expressions of terror, rage, etc., suggested by the delirium; but these are usually passing emotions, and although the child looks really ill, his face generally denotes rather stupid indifference than anxiety. The history of a strong family tendency to tubercular disease does not decide our doubts in favour of tuberculosis, for enteric fever is quite possible in such a constitution. In many cases it will be necessary to withhold a positive opinion, and to wait for time to decide the nature of the case. In typhoid fever the temperature seldom remains elevated longer than three weeks, and in mild cases it often becomes normal at a still earlier period.

When, in a case of acute tuberculosis, severe chest symptoms arise, the physical signs are those naturally belonging to the pulmonary complication, and bear no special character which at once establishes the constitutional origin of the new lesion. When, therefore, a case is seen for the first time at this period, it is not always easy to decide at once upon its nature. We find a child suffering from all the symptoms of capillary bronchitis; his skin is hot, his face distressed and more or less livid, his pulse quick, his breathing laborious, his cough frequent and harassing; a fine bubbling rhonchus pervades the whole of both lungs. The thermometer placed under the arm or in the rectum marks 103° or 104°. The elevation of temperature indicates that the disease is not of a simple character, and the diagnosis lies between tuberculous bronchitis and broncho-pneumonia. Here a history of the disease is of the utmost importance. If the lung affection have been preceded by several weeks of wasting and pyrexia, it is probably of tuberculous origin, more especially if there be a history of consumptive tendencies in the family. If, in addition, we find the cough, although frequent, to be loose, and if a careful exploration of the chest discovers no spots of dulness or bronchial breathing; if, too, the rhonchus is everywhere of the crisp bubbling variety, without any approach to the dry crepitation peculiar to pneumonia, we may conclude that the case is one of tuberculous bronchitis. Broncho-pneumonia may, however, actually come on under such circumstances, and spots of local consolidation may be discovered. Here we are forced to rely upon the previous history of the child to determine whether the disease be a primary one or be secondary to acute tuberculosis of the lungs, and unfortunately in such a case little more than *probability* can be arrived at, so long as the special symptoms remain limited to the chest. If, however, the case be still further complicated by indications of intracranial disease, and convulsions occur with squinting, unequal pupils, ptosis, and rigidity about the joints, we may then safely infer that the case is one of acute tuberculosis involving especially the lungs and the meninges of the brain. The presence of these distinct signs of intracranial irritation is important, for the occurrence of convulsions alone will not give us the assurance we require. It is not uncommon for simple broncho-pneumonia in the child to be brought to a sudden termination by a convulsive seizure, and therefore we must look for the symptoms mentioned above, in order to be enabled to establish the tuberculous nature of the disease.

(a) It is, of course, assumed that in every case all the organs are submitted to a careful examination, otherwise many important diseases might be passed over. To mention one amongst others: pleurisy may give rise to but few symptoms, and without an attentive examination of the chest may easily escape recognition.

ORIGINAL COMMUNICATIONS.

ON THE ADVANTAGE OF OPENING THE CAPSULE BEFORE MAKING THE CORNEAL SECTION IN THE OPERATION FOR SENILE CATARACT.

By W. SPENCER WATSON, F.R.C.S.

One step of the operation for extraction of senile cataract—the theoretically simple process of opening the capsule—presents some difficulty and not a little danger. However fully dilated the pupil may have been before making the corneal section, no sooner is this step completed than the aqueous, if it has not already escaped, rushes out, and the pupil contracts, the iris coming of necessity in contact with the cornea. Supposing the operation to be Graefe's, the next step is to excise a piece of iris, and then comes the laceration of the capsule. The removal of a piece of iris facilitates this step, but at the same time makes it more dangerous. It opens the space for the admission of the cystitome, and allows it to have a wide range of action without coming in contact with the iris; but it also much increases the risk of dislocating the lens and causing prolapse of the vitreous. If the capsule happen to be tough, and the suspensory ligament weak and friable, this accident is very likely to happen; and especially if the fixing forceps is being used, and the patient is under an anæsthetic. If, however, the operation is the old flap or any other operation not necessitating the removal of a piece of iris,

the difficulty of lacerating the capsule freely without bringing the cystitome into contact with the iris is almost insurmountable. But this is not the only danger. The point of the cystitome must, in order to make a free opening of the capsule, pass behind the iris, and it is then of course out of sight, so that its movements can only be guessed at by observing the length and motion of the uncovered portion. Hence injurious friction of the uveal surface may be set up, or, on the other hand, an insufficient opening may be made in the capsule, either of which errors may lead to subsequent disasters. The use of Wecker's cystitome forceps only renders the danger still greater.

Contrasted with these methods let us consider the plan of opening the capsule by means of a curved cataract-needle, introduced through the cornea before the corneal section has been made. This operation was advocated by M. Correnti, of Florence, in 1872. He thinks the chief advantage is in the infiltration of the aqueous humour between the capsule and the lens, and that this facilitates the subsequent escape of the cataract; and he was very well satisfied with the result in several operations by Graefe's plan, in which he had tried this preliminary laceration of the capsule (see *Annales d'Oculistique* for September-October, 1872).

Having operated in this way in seven cases with satisfactory results, I have come to the conclusion that it offers the following advantages in practice:—

1. The pupil, if previously dilated by atropine, remains dilated, and the iris, therefore, is out of the way of the needle.

2. The pupillary area is clearly seen, and the movements of the needle, therefore, can be guided into the precise positions required.

3. The nature of the cataract is more clearly ascertained than can be done by means of focal illumination or ophthalmoscopic observation. The density and thickness of the cortex, and its amount relative to the bulk of the nucleus, can be more satisfactorily made out.

4. There is no danger of dislocating the lens or of rupturing the suspensory ligament and so leading to almost certain loss of vitreous.

5. The information derived from the appearance of the cataract, and especially of its cortex, after lacerating the capsule, enables the operator to modify the subsequent steps in accordance with the varying bulk or density of the cataract or its capsule. If, for example, it is found that the nucleus is very large and dense, a large corneal section will have to be made, and an iridectomy also if there is any difficulty about the escape of the lens with moderate pressure. If, on the other hand, the cataract is composed of a bulky cortex with a very small nucleus, a small corneal incision will suffice.

If the capsule be tough and thickened by inflammatory exudation, it may be desirable to extract the cataract within its capsule, and this can be done by modifications of the ordinary methods. With a cataract of the Morgagnian variety, having a fluid milky cortex and small nucleus, it will be better to extract it in its capsule; and this condition could be easily ascertained by the introduction of the needle before making the corneal section. It is not so easy to make the diagnosis of a Morgagnian cataract by the ordinary methods.

The method of operating is as follows:—If the patient be not under the influence of an anæsthetic it will be possible, by fixing the eye in the manner employed in ordinary discission operations, to dispense with the use of the speculum and fixing forceps during the first step. It is an advantage to do without the fixing forceps if possible, as there is then less likelihood of an escape of aqueous humour on withdrawing the needle. There is nevertheless an advantage attending the use of the fixing forceps—viz., that the needle can be used with more freedom and precision. The pupil should have been previously fully dilated by atropine. The needle used should be slightly curved near the point, and should be the finest possible in the shank. It is entered very obliquely at the lower and outer quadrant about 1‴ from the corneal margin. Its point is then pressed against the centre of the capsule, and a puncture made with a view to ascertain the consistency and nature of the cortex. This done, the operator decides whether to remove the cataract in its capsule or not. If he decides to lacerate the capsule, the point of the needle is carried round the upper and inner margin of the lens with a semicircular sweep, and then across the lower and inner margin with a second sweep, the two semicircles being joined above and below by separate movements of the needle if necessary. It is then withdrawn slowly and carefully; and if its passage through the corneal layers has been sufficiently oblique, there will be no loss of aqueous humour, and the pupil will remain dilated as before. If, however, aqueous has unavoidably been lost, the operation had better be completed on the following day, or even a week later. The subsequent steps of the operation will depend upon the information obtained in the first step. Any of the numerous modifications of Graefe's operation, or the old flap operation, or the Warlomont or Liebreich operation, may be employed according to the supposed suitability of the particular method to the case. Having, however, satisfied ourselves that the capsule is freely lacerated, it will generally be found that a much smaller corneal section will be necessary than if this has not been previously done; for the separation of the capsule from the cortex, and of this again in some measure from the nucleus, will have been favoured by the admission of the aqueous, and hence a much less amount of pressure will be required, and a smaller opening will be needed for its extraction. The only possible objection that is likely to be urged against this operation is that it may occasionally cause an escape of the aqueous humour, and so delay the completion of the operation; but this is an objection that will not have much weight. It is not likely to happen often, and when it does is of no consequence. In order to avoid it, it is necessary to have a very fine needle and to enter it very obliquely through the corneal layers. Perhaps some may object that the capsule cannot be so freely lacerated in this way, from the limitation of the movements of the needle; but this is a matter of experience, and it is practically not a serious obstacle to the success of the operation. It is essential, however, that the needle should be introduced on the temporal side of the cornea, either in the upper or lower quadrant; and hence the operator, if standing behind his patient, must use the left hand for the left eye, and *vice versâ*. If not ambidextrous, he had better, on operating upon the left eye, stand facing his patient and use his right, but this is hardly so convenient a position for the subsequent steps of the operation, and does not allow of so good a rest for the hand in this step as if the operator were behind. Each operator will find out for himself the most convenient and easy attitude, but for the ambidextrous there can be no doubt that the position behind the recumbent patient offers many advantages throughout the operation, and especially in the laceration of the capsule.

7, Henrietta-street, W.

CASE OF

ANEURISM BY ANASTOMOSIS, SUCCESSFULLY TREATED BY LIGATURE OF THE EXTERNAL CAROTID.

By G. F. MASTERMAN, M.R.C.S., L.A.C.,
Late Assistant-Surgeon General Military Hospital, Asuncion del Paraguay.

THE following case presents some points of interest:—The patient, a girl sixteen years of age, daughter of a baker, is fairly developed and well nourished, but the menses have not appeared, and there is slight dulness under left clavicle.

I was consulted in consequence of free hæmorrhage from a supposed cancerous growth on right ear. I found, however, that the case was really one of aneurism by anastomosis, involving the superior half of the helix and concha, and that the bleeding was due to a ruptured vein. The affected ear was fully half as large again as its fellow, thick, red, and brawny, and nearly its whole surface pulsated strongly. Attached to the inner border of the helix were three outgrowths, the largest as big as a nutmeg, the others much smaller; they throbbed forcibly, especially when the pulse was quickened from any cause, when the whole ear became hot to the touch and vividly red; and the smallest bled so freely, if meddled with, that about half a pint of blood had been lost on two or three occasions.

She had been under treatment—chiefly medical—several times, and one surgeon had tried to stop the mischief by a screw-clamp applied over a large vessel about the middle of the ear; but, as this was evidently a vein, the pressure did no good, and led only to the absorption of part of the cartilage, leaving a hole—still covered by integument and traversed by the enlarged vein,—feeling exactly as if it had been punched out.

Pressure on the common carotid immediately stopped the pulsation, and the pendant growths became flaccid. Firm

pressure in front of the tragus had the same effect, so I proposed to the parents of the girl to ligature or cut through the temporal artery, from which the main supply seemed to come.

When I had exposed this vessel, however, for that purpose, I found two others quite as large, which evidently came off from the external carotid, so the incision was cautiously extended downwards, avoiding some branches of the facial nerve, and the latter artery ligatured opposite the angle of the jaw. All pulsation in the ear ceased as soon as the knot was tied, and the wound was then closed with three wire sutures. I passed a needle through the base of the larger tumour and tied it, but the others were snipped off and the wounds touched with nitrate of silver.

All went on well: the ligature came away on the fifth day, and the wound, which had been treated antiseptically, closed almost immediately afterwards; but I was vexed to find a month later that there was still a slight pulsation at the back of the ear. It was so slight, however, that my patient was unwilling to have anything done for it, and it was not worth while to press the point.

It is now nearly twelve months since the operation; the ear is still larger than that of the left side, but it has lost all unnatural redness and heat and varicose thickening. There is only a slight beating, evident to the touch but not to the eye, at the back of the concha.

Burnham, Maidenhead.

PHLEGMASIA DOLENS.

By JAMES C. L. CARSON, M.D.

On February 4, 1874, I was called to attend a lady in her first confinement. She had a good constitution, and had always enjoyed excellent health. The case was so speedy that the baby was born before I reached the bedside; but the navel-string was not cut. I separated the child, applied the bandage after my usual method, and the placenta came away in good time, without the slightest interference. I examined the placenta, and found it perfect. There was extremely little loss, as the contraction was firm and steady. The recovery was as good as I ever saw. The patient rose on the ninth day after delivery, and I took my leave on the tenth day. Five days after this I was sent for again. I found the patient alarmingly weak, with a pale and haggard countenance. The lochia had ceased, and the secretion of milk was reduced more than one-half. There was intense pain in the ball of the right leg, as well as along the course of the vessels in the thigh and groin; the whole limb was immensely swollen, and quite tense from the body to the toes. There was no pitting on pressure, nor was there any discoloration. I determined to avoid the usual treatment laid down in books, because I had never seen the slightest good result from it. I put the lady permanently in bed, gave nourishment freely in a simple form, and three or four glasses of wine in twenty-four hours. There was no local application whatever, nor was there any internal medicine, except as hereafter stated. Some years since my friend, Dr. Henry Purdon, of Belfast, told me of the success he had had in treating puerperal peritonitis by the bisulphite of soda. I have lately used this medicine in various forms of fever and other diseases with marked advantage. I therefore prescribed it in this case of phlegmasia dolens. The dose was twenty grains, in solution, every third hour. In twenty-four hours the constitutional symptoms became visibly improved. In three days the pain and swelling began to subside, and were totally gone in five days more. The lochia at the end of that time returned, and the milk became abundant. The patient was able to rise, and has been perfectly well ever since.

Coleraine, Ireland.

PRURIGO AND ULCERATIONS IN VARIOLA.—Dr. Guéneau de Mussy recommends the following pomade when the itching in variola is excessive:—Cerate thirty grammes, bromide of potassium three grammes, and camphor three decigrammes. When the pustules are followed by ulcerations, he prescribes the following pomade:—Cerate thirty grammes, tannin, oxide of zinc, of each two grammes, calomel two decigrammes, and watery extract of opium one decigramme.—*Annales de Dermatologie*, 1874, No. 3.

REPORTS OF HOSPITAL PRACTICE IN MEDICINE AND SURGERY.

GUY'S HOSPITAL.

CASE ILLUSTRATING THE DIURETIC ACTION OF COPAIBA RESIN.

(Under the care of Dr. MOXON.)

For the following interesting notes we are indebted to Mr Ernest Field, L.R.C.P.:—

E. S. F., aged 11½ years, was admitted into the clinical ward on February 18, 1874, suffering from mitral regurgitation. On admission she was extremely ill; there was a large amount of dropsy over the whole of the body, much blueness of the face, and a distinct systolic apex-bruit. Owing to the amount of congestion present, as shown by the condition of the lips and face, a few ounces of blood were removed by venesection; this did not appear, however, to materially relieve the patient. Diffusible stimulants and tincture of digitalis were given at the same time freely, the dose of the latter being gradually increased to twenty minims every four hours. Although at first it was not thought by anyone who saw the girl that she would live twenty-four hours, her condition gradually improved; until, on February 23, there was no bruit to be heard at the apex, the congested appearance of the face had vanished, and the child was cheerful and generally comfortable. The dropsy, however, had not diminished; and at this time only sixteen ounces of urine were being passed in the twenty-four hours. Under these circumstances ten grains of the resin of copaiba were added to the digitalis mixture; in two days the amount in twenty-four hours was thirty ounces, but owing to the sickness produced by the medicine the resin was discontinued. On February 26 the amount of urine passed in the twenty-four hours was two pints, and copaiba resin was detected in it.

The quantity passed daily remained at this point until March 7, and there was no great diminution in the amount of dropsy, the legs resembling "pillows" (to use the words of the physician in charge). The general state of the patient seemed satisfactory, if only she could get out of her water-logged condition. Accordingly, it was determined to make another trial of the copaiba resin. The digitalis mixture was discontinued, and one containing copaiba resin substituted.

On March 9 the quantity of urine passed was four pints; on the 10th, four pints seven ounces; on the 11th, four pints. By the 15th the whole of the œdema had disappeared, and the appearance of the limbs in their shrunken, wasted condition was very striking. The drug was now discontinued, and cod-liver oil with some iron-wine was ordered, as the little patient was in an extremely cachectic, anæmic state.

Up to March 20 she still continued to pass about four pints of urine daily—an effect which then was not desirable, as she was not in a condition to part with fluid to such an extent in her enfeebled state. It is worth noting that at this time no copaiba resin could be detected in the urine. By March 23 the amount of urine passed had returned to its normal quantity. The patient is now (April 10) about to be discharged.

LIVERPOOL ROYAL INFIRMARY.

PENETRATING WOUND OF CHEST—DIVISION OF INTERNAL MAMMARY ARTERY—HÆMOTHORAX—DEATH.

(Under the care of Mr. HAKES.)

[Notes by Mr. H. A. LAWTON, Junior House-Surgeon.]

JAMES H., aged 50, pensioner, residing in a low neighbourhood of Liverpool, was admitted on April 18, at 10.15 p.m., suffering from a penetrating wound of right side of chest—the result of an assault. He was under the influence of drink; was covered with blood; collapsed; vomiting and defæcating. Pulse scarcely perceptible.

On examination, an incised wound was found which commenced on the right side, two inches below sterno-clavicular articulation, and passed obliquely downwards and outwards towards nipple for a distance of three inches. The costal cartilage of the third rib was divided, and also the second and

third intercostal spaces; the second vertically and the third horizontally. The interior of the pleural cavity could be seen, and the finger passed readily in. Air entered the pleura at each inspiration. He had previously been taken to the East Dispensary, where three sutures had been put in. It was found necessary to put in three more, and the wound was dressed antiseptically. He was at once put to bed; ammonia and chloric ether administered; and was ordered brandy q. s., milk, and beef-tea.

April 19.—At midnight, as he had pulled his dressings off, they were replaced. At 3.15 a.m. a smart attack of hæmorrhage took place from the wound, but had ceased when I reached the ward, and he was syncopic. At 4.15 a.m., the magistrate attended to take his deposition, and we then learned that the wound was done with a heavy sharp instrument. Calls incessantly for water, and vomits it in a few minutes. 10 a.m.: Has rallied somewhat. Skin moist; pulse 88, full and compressible; tongue moist and brown. Complains of thirst; has vomited frequently, ejected matter somewhat coffee-ground-like in appearance; is very restless. 9.30 p.m.: Temperature 101° Fahr.; pulse 128; respirations 54; tongue dry and brown; vomited three times; diarrhœa; very restless.

20th.—9 a.m.: Temperature 100° Fahr.; pulse 114; respirations 45, accompanied with groaning; tongue black down centre, coated and moist at sides; right side of chest dull from nipple-line; air enters lung above nipple, none below; wound only shows signs of healing at extremities, and has contracted in length; did not sleep; no purging or vomiting. 9.30 p.m.: Temperature 102° Fahr.; pulse 120; respirations 50 to 60, accompanied with râles in the throat; face flushed. Complains of great pain in right side.

21st.—9 a.m.: Temperature 100·5°; pulse 124; respirations 44; tongue dry and brown. Very restless during night till 6 a.m., since when he has had a little sleep, and seems somewhat better. Bowels have not acted. Right side of chest moderately resonant to within one inch of nipple-line. Vocal resonance increased, and bronchial râles present. Left side resonant, and physical signs of bronchitis and emphysema. 9.30: Temperature 102·8° Fahr.; pulse 124; respirations 45. Much quieter. Lies listless on back.

22nd.—9.30 a.m.: Temperature 101·6°; pulse 128; respirations 44. Was very restless during the night, tossing about in bed; since 4 a.m. has become quiet. Between 1 and 2 a.m. he had a smart attack of hæmorrhage from wound, but bleeding points could not be seen. Wound ulcerating at edges. Blood oozes from wound on coughing. Dulness at base of right lung complete. 9 p.m.: Is much weaker; lies in a semi-comatose condition. Bowels have acted. Temperature 102·4° Fahr.; pulse 130; respirations 60, irregular; oozing continues.

23rd.—9.30 a.m.: Temperature 103·4° Fahr.; pulse 130; respirations 40. In same state; did not sleep; lies mostly on right side. Right side of chest completely dull. At left side bronchitis increased. 8 p.m.: Temperature 103·6° Fahr.; pulse 130; respirations 60; oozing continues.

24th.—9.30 a.m.: Temperature 103·2° Fahr.; pulse 130; respirations 42. Bronchitis worse. 9.30 p.m.: Temperature 102·8° Fahr.; pulse 140; respirations 50. Wound gaping, and air enters at each inspiration; moans; is sinking fast. Died at 11.35 p.m.

Post-mortem Examination, thirty-five hours after Death.—Body that of a well-developed, muscular man. Rigor mortis was marked. Wound on right chest as before described. Rib cartilages ossified. On examining sternum after removal the parietal layer of pleura is found to be thickened and sloughy; the corresponding visceral layer in same state. On following down the right internal mammary artery it is found to be completely divided in the third intercostal space, and the proximal end patent. The pleural cavity contains a pint of blood mixed with pus. Lung adherent in parts (recent), and lower lobe compressed. The whole pleura is injected, and shows signs of acute inflammation. Right lung at apex moderately healthy and just floats in water; base of a dark colour, tears easily, and sinks in water. Left lung markedly emphysematous. Acute bronchitis present in both lungs. Heart enlarged, soft; more than normal quantity of fat along sulci and at edges. Mitral valve thickened at edges, opaque, and has patches of atheroma. An ante-mortem clot in right ventricle and pulmonary artery. Liver and kidneys enlarged and fatty. Spleen soft.

ROYAL SOUTH HANTS INFIRMARY.

UNUNITED FRACTURE OF THE HUMERUS.

(Under the care of Dr. LAKE.)

GEORGE A., a healthy-looking sailor, aged forty years, admitted June 9, 1873, was struck, eight months ago, by the wheel on board ship, which fractured his left humerus about its middle. The arm at the time of the accident was put up in the usual method with three splints, but at the end of two months no union had taken place. The broken ends were then rubbed forcibly against one another, and put up as before for another six weeks, but without success. The limb was now encased firmly in a strong plaster-of-Paris bandage, and not disturbed for several weeks, but on removing it, the fracture was found to be still in the same condition.

On admission there seemed to be no constitutional disorder to which the want of union could be attributed; accordingly an operation was decided upon.

June 25.—Operation: An incision four inches in length was made on the outer side of the humerus, its centre corresponding to the seat of fracture; the tissues were cleared away and the fracture fully exposed, when it was found that a small chip of the humerus had been broken off and was lying loosely between the fractured ends; this being removed, and the broken ends scarified, a hole was bored through both with the Archimedean drill, and a piece of stout silver wire passed, and its ends twisted tightly together, so that the broken ends of the humerus were firmly pressed against one another. Edges of the wound brought together by suture, except central portion though which wire passed, which was plugged with oiled lint. Limb placed on a rectangular splint and two smaller splints, and the patient confined to bed for the first few days.

July 30.—Has not had a single bad symptom since operation. Splints removed to-day for examination; it was then found that a large quantity of callus had been thrown out, and that a considerable amount of union had taken place. Limb put up as before.

August 8.—Silver wire removed. This was readily accomplished by untwisting, and employing slight traction, no further cutting being necessary.

11th.—Discharged as an out patient; arm still confined in splints.

19th.—Union firm; plugging stopped.

26th.—Limb in a highly satisfactory condition; wound well.

September 18.—Union quite firm; splints dispensed with altogether; forearm to be still suspended in a sling.

December 15.—The operation has indeed been a very satisfactory one. The arm is now strong, and continues daily to recover more and more of its former usefulness.

INFANTILE CATARACT.

(Under the care of Dr. SIMS.)

This is a case of the above in a boy, aged twenty years, who was lately under treatment in the Infirmary. The cataracts, which were first observed when he was about three years of age, are of the variety known as the lamellar—viz., "a central opacity of lens, with a more or less clear circumferential margin." From the history of the case there is every reason to believe that they are not progressive. Mr. Critchett's operation of iriddesis was adopted on both eyes at an interval of threeweeks, and the pupils drawn downwards and inwards. Both operations have been eminently successful, for whereas previously he had much difficulty in finding his way about, now he has so far recovered as to be able even to see to thread a needle, and that of course without the aid of cataract glasses.

THE HÔTEL DES INVALIDES, PARIS.—According to the report of M. Castellane to the National Assembly, each invalid soldier costs the State from 1000 fr. to 1200 fr. per annum; and it has been for a long time proposed to substitute the out-pensioner system for the present residential system, it being believed that the pensioner would live far more happily where he liked with 500 fr. or 600 fr. pension than he now does upon the 1200 fr. which he costs the State. This is what the committee of which M. Castellane is the reporter had definitely recommended. Each bearer of a military medal is also entitled to a pension of 100 fr. The pensioners, who formerly amounted to 4000 in number, do not now exceed 900.

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" "	*Six* "	0	15	0
India	*Twelve* "	1	15	0
" (*vid Brindisi*)	" "	1	19	0
"	*Six* "	0	17	6
" (*vid Brindisi*)	" "	0	19	6

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Medical Times and Gazette.

SATURDAY, MAY 9, 1874.

SOCIETY FOR RELIEF OF WIDOWS AND ORPHANS.

In another part of our pages will be found the annual report of the Society for Relief of Widows and Orphans of Medical Men, and we commend it to the earnest attention and consideration of our brethren. During the year this Society distributed the sum of £2530 in half-yearly grants to fifty-six widows and thirty-four children, the greater number of the widows receiving £50 or £40 a year each, some £35, and a few smaller sums; while the children are granted £12 or £10 a year each, or in some few cases smaller amounts, according to circumstances. And though these grants are made half-yearly, they may be as safely counted on from time to time as if they were annuities, unless the circumstances of the recipients improve or the resources of the Society should become deficient; and, as the Society possesses invested property to the amount of £70,000, this is, to say the least, an extremely improbable contingency. Now, it needs not to be said that medical men often die at a comparatively early age, or after a long life of hard labour, and leave their widows and children with a mere pittance or absolutely destitute. Who among us has not had painful experience of such deplorable events? and who would not rejoice to know that in such cases help like that afforded by the grants mentioned above had been safely secured? Surely the bitterness of death might in many a case be most materially lessened by the certainty that the loved ones whom the bread-winner was leaving behind him would be thus aided. Well, here is a solidly established and wealthy society offering this help without trouble, publicity, or any additional expense, for a subscription of two guineas a year; and yet, though the advantages of the Society are open, on these easy terms, to "any person duly registered under the Medical Act, and resident within the limits of the London District Post, or in the County of Middlesex," there were in the last year only 159 life members and 229 subscribing members, and these numbers are less by eight than in the previous year. How is this to be accounted for? It can hardly be supposed that the Society is unknown, for no year ever passes without its advantages being more than once commented on in each and all of the medical journals. The terms of membership are surely light enough? one guinea entrance fee, and a subscription of one guinea half-yearly—that is not tenpence a week!—and a man needs to have been a member for two years only in order to secure for his widow and children the benefits afforded by the Society. Who cannot manage by some means to pay that subscription? Will anyone say that the benefits that may be gained are too small? We can hardly believe that. Fifty or forty pounds a year is by no means a trifling help to those left quite or nearly destitute; and when there are children as well as a widow, the yearly grants may amount to more than £50 a year. And the aid to be obtained is certain—unless, indeed, the widow and children of a member are happily left with £50 or more a year, and then the small subscription paid goes to help those left in sore need. We know of no Society more richly deserving support, and feel almost ashamed to have year after year to urge our brethren to join it.

EDUCATIONAL DISABILITIES OF WOMEN.

The Senatus of Edinburgh University on the one hand, and the extra-mural teachers of the female medical students on the other, have taken action on the projected Bill of the Right Hon. W. Cowper-Temple relating to the educational disabilities of women in Scottish universities. The Senatus have determined, by a majority of 12 to 4, to petition Parliament not to pass Mr. Cowper-Temple's "Bill to remove doubts as to the powers of the Universities of Scotland to admit women as students and to grant degrees." At the same time, the majority of the Senatus qualified the terms of their petition by recommending Parliament to substitute for Mr. Cowper-Temple's Bill a Royal Commission to inquire into the subject at issue. The motion supported by the minority was that no action should be taken in the matter at all. On the other hand, seven extra-academical teachers, whose names have been brought into more or less prominent publicity during the past few years in connexion with the female medical discussions, have petitioned Mr. Disraeli in favour of Mr. Cowper-Temple's measure. Their characteristic requisition is embellished with an account of their personal connexion with female medical education—a touching commentary on the zeal and aptitude of their would-be "girl-graduates," and a statement of the recent discovery of that most essential fact that "no woman can anywhere in the whole realm by any means whatsoever obtain a legal passport into the profession of medicine."

With regard to the action of the Senatus Academicus of the Edinburgh University, we have no doubt that the recommendation to proceed by Royal Commission, in preference to leaving the adoption or rejection of Mr. Cowper-Temple's Bill to the judgment of the House, was the result of mature consideration. It is a method of procedure which might lead to a much more satisfactory, if less speedy, settlement of the question than that proposed by Mr. Cowper-Temple and approved of by seven extra-mural teachers, who have laid themselves out as a sort of spontaneous differentiation for the promotion of female medical instruction. With reference to their petition, it is well to remember that for several years they have been educating female students in medicine and surgery with the prospect that the time might come when their eccentric pupils would be able to find their way into the Medical Register. They and their female students must be prepared to take the risk of the latter never being able to enrol themselves in the Register at all. They have been walking in the dark, and must assume all the responsibility of having commenced a dubious journey before their course was understood.

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It is significant that the petition to Mr. Disraeli in favour of Mr. Cowper-Temple's Bill is signed by none but extra-academical lecturers, who have been engaged in teaching the lady-students. Of these petitioners there are seven. We should have thought that when these extra-mural lecturers determined to petition Mr. Disraeli in favour of a Bill attempting to legalise certain important changes in the University of Edinburgh, they would have been anxious to secure the co-operation of those University professors who also at one time or other have been engaged in teaching female students. Why, for instance, does Professor Bennett not join in the petition to promote Mr. Cowper-Temple's measure, when (as the actual petitioners might safely admit) his name would carry a greater weight than any of those appended to the requisition submitted for Mr. Disraeli's official admiration? Where is Professor Balfour's signature, whose position as Dean of the Medical Faculty of Edinburgh University would have had special influence? And where is the name of Professor Crum-Brown, who, if we remember rightly, preceded Mr. Stevenson Macadam as lecturer on chemistry to the ladies studying medicine? It cannot fail to strike those who peruse this extra-mural petition that the teachers who endeavour to promote Mr. Cowper-Temple's Bill are men who have no direct connexion with the University, and are in no way responsible for its welfare; that, in fact, they belong to a class of teachers whose prosperity is not unfrequently dependent upon some element of weakness or discord in the University itself. Those, on the other hand, who may be assumed to have a personal and direct interest in the welfare of Edinburgh University, appear to have suppressed any spirit of partisanship, and determined either to lay upon Parliament the responsibility of any change, or to defer legislation till fuller inquiry has definitely determined what rights are claimed on the one hand and what interests must be protected on the other. Up to this time all dealings with the subject have been associated with a painful amount of angry feeling, shown both in public and in private, and we feel assured that, if in the present state of matters Mr. Cowper-Temple's measure were to become law, the amount of ill-feeling which would be generated amongst teachers and students would have consequences which at the present time could not fail to be disastrous to the Edinburgh School of Medicine, if not to the entire University. In the meantime, however, the friends of the University have no cause to be alarmed at the communication addressed by seven extra-mural teachers to the First Lord of the Treasury.

LEUBE ON THE TREATMENT OF DYSPEPSIA.

In an excellent lecture published in Volkmann's *Sammlung Klinischer Vorträge* (No. 62), Professor Leube, of Jena, discusses the causes and appropriate treatment of that large group of symptoms by which all diseases of the stomach, whether they arise from severe organic changes or from a simple catarrh, are more or less accompanied, and which has received the time-honoured name of dyspepsia. He first considers the question of their dependence on alterations in the relative proportions of acid and pepsine in the gastric juice, and comes to the conclusion that in the majority of cases in which such quantitative alterations have occurred it is the acid which is present in too small a quantity, and not the pepsine. A small quantity of pepsine can, like other ferments, act on an indefinite quantity of nutritive material, though digestion goes on quicker in proportion to the amount of pepsine present. On the other hand, if the acid (hydrochloric, perhaps lactic) be deficient in quantity in the gastric juice, digestion is enfeebled, or stops entirely. The method adopted to determine these facts was the following:—Patients were made to fast for a few hours and had twenty-five grammes of Carlsbad salt given them to assist in clearing out the stomach as much as possible. Then, at midday, a short time after they had eaten some dry cold meat, with or without mustard, some of the contents of their stomachs were removed with a sound, and examined as to their odour and reaction, and also as to the extent to which the digestive process had advanced. A specimen of each patient's gastric fluid was then filtered and divided into three parts, which were placed in three flasks of equal size, to the second and third of which two drops of hydrochloric acid, and of a neutral pepsine solution, were respectively added, the first being left without anything added to it. The time was then noted which the fluid in each flask took to digest a piece of boiled fibrine of similar size at a temperature of from 35° to 40° C. The general result of many experiments was that the fluid in the first and second flasks—those without and with added pepsine—had almost exactly the same digestive power, and the solution of the fibrine went on quite slowly; whereas in the flask to which acid had been added the fibrine was usually entirely dissolved in from twelve to twenty-four hours. Dr. Leube therefore considers that he is justified in recommending the more extended use of hydrochloric acid in the treatment of dyspepsia, especially as his own results in practice support his theoretical views. He orders eight drops of the acid in half a wineglassful of water an hour after meals, and in severe cases gives it again at the fourth hour.

With regard to dyspepsia from so-called acidity—*i.e.*, the acid in excess,—Leube expresses himself doubtfully; for in many cases where vomited matters have a sour smell they are not necessarily acid. He speaks, for instance, of a case of dilated stomach, whose contents had a neutral reaction, though they smelt fearfully sour. Even the presence of acid in excess does not contra-indicate the use of hydrochloric acid; for the acids on which it probably depends—the acetic and butyric—are useless for digestive purposes, while even the lactic does not act in combination with pepsine like the hydrochloric; it does its work slower, and much larger quantities are required to obtain the same result.

Dyspepsia due to excessive secretion of mucus (which acts as a ferment and gives rise to the production of useless acids, such as those above mentioned, besides carbonic acid) should be treated by alkalies—*e.g.*, the bicarbonate of soda,—which not only neutralise these acids, but excite, if given in considerable quantities, a flow of normal gastric juice.

Changes in the quantity of the gastric juice as a whole, arising in persons with so-called torpid digestions, are difficult to treat. Here the irritation of the food alone is insufficient to excite the secretive action of the gastric glands, and so attempts are made to increase the flow by taking highly seasoned dishes, spices, and such-like. These cases require much patience in their treatment. The use of irritant foods must be discontinued very gradually, and their place be filled by ether, alcohol, and bitters, but especially by cold water and ice, for these excite a reflex flow of saliva, which, when swallowed, acts as a most powerful stimulant to the gastric mucous membrane.

It is well known that for digestion to go on properly the peptones which have been produced must be continually removed by absorption, to allow the undigested residue to come into contact with the stomach-walls and with the gastric juices. It is probably owing to this removal not taking place quickly enough that some of the digestive troubles in chronic catarrh of the stomach arise, and Leube considers that it is the main cause of many cases of dilatation of the stomach which are uncomplicated with pyloric stricture. Even where the latter exists, owing to the cicatrices of ulcers or to cancerous growths, the whole dilatation does not always depend on the stricture, for the pylorus is not unfrequently found (post-mortem) not to

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be so contracted as it should be relatively to the amount of dilatation of the stomach.

Leube lays great stress on the use of the stomach-pump or of a syphon-sound, both for the diagnosis and treatment of this affection. The habitual removal of the contents of the stomach checks the dilatation, and permits the organ to recover its size to a certain extent. The stomach should be regularly washed out every day, the patient's allowance of fluid limited as much as possible, and small pieces of ice or fruit-ices given instead. Solid food should be taken only in small quantities at a time. Leube thinks that hot poultices to the epigastrium benefit catarrhal and inflammatory processes in the stomach, just as they do other chronic inflammations—*e.g.*, pleurisy and peritonitis—elsewhere, by promoting the absorption of inflammatory products. In severe cases he gives the stomach perfect rest for a time by means of his enemata of meat and pancreas. Probably galvanism is useful in some forms of dilatation of the stomach, by its action on the muscular coats; for muscular movement brings fresh surfaces of food in contact with the digestive secretions, as well as fresh peptones with the stomach-walls, while there can be little doubt that the contraction of the muscles assists the circulation in the veins and lymphatics, and so helps to remove absorbed products.

In conclusion, Professor Leube discusses the best form of diet for dyspeptic patients, and insists on the maxim that "for a sick stomach there is no better diet than rest." However, it is not necessary to adopt such a maxim literally in most cases of dyspepsia, involving, as it does, the exclusive use of enemata; ordinarily, we may content ourselves by giving "easily digestible" food by the mouth. The relative digestibility of different foods has occupied the attention of many observers, without even yet being satisfactorily understood. We want still to know more of the relative share which is taken by the different parts of the alimentary canal in the process of digestion. It is not at all desirable that a dyspeptic patient should have food ordered him which is only digestible by the stomach. Foods which by their consistence and form mechanically irritate it do not cause so much harm to it as foods on which the gastric juice can act easily, and which therefore remain long in it. Individual constitution and the nature of the particular disease must be also considered in deciding on forms of diet.

It is probable that young veal, chicken, pigeon, boiled fish, and underdone beef are the most suitable foods for most patients—of course, with the exception of milk and eggs, which are the most digestible of all. Meat should be underdressed, not only because it becomes tough by much cooking, but because Fick has recently shown that the same gastric juice digests cooked meat three times as slowly as raw. Eggs should be taken soft-boiled, and not raw, for Leube has found by experiments on himself that their albumen is more easily digested when cooked than raw; and Fick has also shown that there is at any rate no advantage in the uncooked form over the cooked so far as digestibility is concerned. Fat sauces must be abstained from, because they shield other food from the action of the gastric juice. The only vegetables which Leube allows are asparagus, young peas, and carrots and mashed potatoes. Bread he gives stale. He usually forbids all alcoholic liquors. If none of the foods just mentioned agree, he gives his patients an extract of meat, or rather a peptone solution, prepared by the action of acid on meat *in vacuo* at a high temperature. A fine emulsion is produced, which has a slimy consistence and a pleasant taste, somewhat resembling Liebig's extract, but it differs from the latter in containing all the constituents of the meat. This extract is easily digested, and is tolerated by the most irritable stomachs. Patients with gastric ulcer lose their pains from the day they begin to take it. Of course the use of such an extract is not restricted to diseases of the stomach. It is indicated wherever an absolutely unirritating food is required—for example, in typhoid fever dysentery, tubercular ulceration, and peritonitis. The best extract is prepared by Dr. Mirus, of Jena, and Professor Leube would be glad if those medical men who make an extended trial of it would publish the result of their experience.

PROPOSED ADMISSION OF WOMEN TO THE DEGREES OF THE UNIVERSITY OF LONDON.

THE first business of the ensuing meeting of Convocation of the University of London, on Tuesday next, the 12th inst., will be the adjourned consideration of the motion on the advisability of admitting women to the degrees of the University, and of obtaining a new charter conferring this power.

It is said that on this occasion the women and their supporters have resolved to make a display of their strength, and that with the excellent organisation which they possess there is actually some danger that they may carry their point in spite of all opposition. We trust that matters have not quite come to such a pass that the members of Convocation of the University of London will allow a motion to be carried which involves such serious and, as it seems to us, disastrous consequences to all concerned in it. To the women themselves we are anxious, as we have ever been, to offer the most disinterested and serious advice. The point which they wish to gain is the power of obtaining the degrees of the University by examination along with men; the Irish ladies being especially anxious to have an "opportunity of correcting their deficiencies by a comparison, under a common standard of their attainments, with those of men." Now, if the women who intend to avail themselves of this "opportunity" (should it ever be afforded them) were individually to consult the medical members of Convocation, we believe they would receive advice the very opposite of encouraging. The painful recollection of even successful reading for the University degree, and of its effects on less successful candidates, would certainly make the medical graduates hesitate before recommending the same work to delicate women. It is notorious that the extent more than the inherent difficulty of the subjects of examination is the common cause of failure; and it necessarily follows that if the present average is to be preserved and the reputation of the degrees sustained, the women admitted as candidates would run the most serious risk of injury both to body and mind.

But the danger does not end here; consequences are involved in the proposal, which, although more remote, are yet more serious because of national magnitude. The general belief that severe mental labour has a detrimental effect upon the maternal functions, has recently received abundant actual confirmation from the researches and writings of an American physician and Dr. Maudsley. It is perhaps asking too much of women to expect them to be influenced by such a consideration as this; but it is a consideration which is bound to influence those who have a voice in the administration of a great University. The University of London has a higher function to discharge than to fill the country—if that were possible—with masculine women-graduates: it has to exercise an important influence on national education, and it may have to control and even withhold, as well as to grant, if it will accomplish its end. Let there be a clear understanding that, so far from presenting any obstacle at present to the acquirement of knowledge by women, the University of London encourages this by holding special examinations, and granting special certificates to successful candidates. But having got so much, the women are now clamouring for admission to men's examinations, and the reward of degrees. Whatever they may say, however, there can be no doubt that, when the charter was granted to the University, such a thing as the admission of women as members was never dreamt of. It is the duty of every member of Con-

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vocation, who seriously considers the question of the admission of women to degrees, to present himself without fail at the meeting on Tuesday, and let his influence be felt. A strong effort, we repeat, is being made by the women's party to bring up every available voter, and it may require the presence of all who would resist this dangerous proposal to insure their defeat.

THE WEEK.

TOPICS OF THE DAY.

The increasing dissatisfaction of the governors and managers of our public lunatic asylums with the present system of admission of patients, and the necessity for some alteration in respect to it, will, no doubt, sooner or later lead to future legislation on the subject. Our attention has been drawn on the present occasion to the matter by the following observations by Dr. C. W. Carter Madden-Medlicott, in his twenty-fifth annual report of the Somerset County Lunatic Asylum for 1873: that many were admitted in a semi-moribund state, frequently emaciated by privation and disease, whilst others, very aged people, were *made out* insane, and were brought to the Asylum only to die; and he adds, it is fully open to question whether this should not be regarded as criminal neglect. It will be recollected we noticed a complaint of a similar character with respect to the admissions at the Caterham Lunatic Asylum.

In the Court of Queen's Bench, on Saturday, before the Lord Chief Justice and Justices Blackburn and Lush, sitting *in banco*, a case of great importance with respect to the Vaccination Act was brought on for argument. It was an appeal, Knight *v.* Halliwell. The appellant had neglected to have his child vaccinated, whereupon the respondent, the vaccination officer of Wigan, laid an information on June 24, 1873, against the appellant, to show cause why an order should not be made directing the child to be vaccinated. Upon the hearing the appellant admitted the facts, and it appeared he had been frequently convicted in failing to comply with the notice. It was contended for the appellant that a fresh notice should be given on each occasion on which proceedings were taken against him, and that he could only be fined once for non-compliance with such notice, on the ground that the notice of his conviction had become exhausted, and that a special resolution should be passed by the guardians authorising the respondent to take proceedings in each particular case. The justice before whom the case was tried was of opinion that the objections raised were invalid, and he made an order directing the child to be vaccinated within the space of fourteen days from July 3. Against that decision the present appeal was founded. The same objection was now taken as that before the magistrate, and, moreover, that further proceedings could not be taken later than twelve months after the cause of complaint had arisen, except upon a fresh notice. In this case notice was given on May 10, 1872; the fourteen days' notice to the complainant expired on the 24th of the same month, but the information for an order was not laid till June, 1873, thirteen months after notice. After some further discussion, the Court decided against the appellant on all the points raised, except as to the period when the information was laid. In that case they were clearly of opinion that it should have been laid within twelve months, and this having been neglected the order could not be made. The appellant was refused his costs, and the Lord Chief Justice hoped proceedings would be taken against him, to compel him to have his child vaccinated, and that those proceedings would be according to the statute.

The Medical Officer of Glasgow, in his last quarterly report, the following startling statistics respecting the mortality infants in that city. The death-rate per 1000 living ne year was 185, one and under five years 56 (under five years 88), five years and upwards 17. Of the legitimate children who died under one year, 69 per cent. were certified, while of the illegitimate only 40½ per cent. were certified; showing that for 31 per cent. of the former, and for no less than 59½ per cent. of the latter, there was no proof of medical attendance having been obtained. Of the legitimate children who died aged one and under five years, 81 per cent. were certified, while of the illegitimate 60 per cent. were certified; showing that for 15 per cent. of the former, and 40 per cent. of the latter, there was no proof of medical attendance having been obtained.

A memorial signed by twenty-six of the professors of the four Scotch Universities has been presented to the Premier, praying that he would take into immediate consideration the difficulties at present in the way of women desiring to matriculate in medicine at the Scotch Universities, and that universities should by enactment be, if not required, at least enabled, to make arrangements for the education of women. The following are the names of the professors who have signed the petition, viz.:—Professors Campbell, Fischer, Roberts, Heddle, Crombie, Baynes, Tullock, and Macdonald, of St. Andrews University; Professors John and Edward Caird, of Glasgow University; Professors Struthers, Bain, and Dickie, of Aberdeen University; and Professors Wilson, Masson, A. C. Fraser, Innes, Hodgson, Calderwood, Jenkin, Blackie, Kelland, Lorimer, Geikie, Charteris, and Wallace, of Edinburgh University. It is noteworthy that not one of the professors in the Faculty of Medicine signed the petition, and only four medical professors in the other Scotch Universities could be found to attach their names to it.

It appears from the report of the Medical Superintendent of the New York State Lunatic Asylum, in his thirtieth annual report, that no institution in the United States for the care and cure of the insane has an efficient staff of medical officers. He enlarges with much force on the evils of such a "penny wise and pound foolish" system.

THE LATE GOLD COAST EXPEDITION.

The effects of hard work and exposure in the late Ashantee campaign are still apparent amongst many of those who served on the Gold Coast. We have now, unfortunately, to record the death of Lieutenant-Colonel Maxwell, of the 1st West India Regiment, on his way to Madeira. This officer served with much distinction during the late operations, and was left at the close of the war to settle some of the grievances of the native kings; but unhappily, from a sense of duty, he remained at his post too long, and was buried at sea on his passage to this country. In addition to Lieutenant-Colonel Maxwell, Major Saunders (Royal Artillery), Lieutenant Warner (2nd West India Regiment), and Lieutenants Roper and Burke (1st West India Regiment), have also succumbed to disease contracted on this pestilential coast. According to the latest accounts, the heavy rains have now regularly set in, and the whole of the European officers and non-commissioned officers of the detachment of the 1st West India Regiment stationed at Prahsu were down with fever and dysentery. This detachment was to be relieved by native police, and would no doubt be drafted away from Cape Coast Castle, if only so far as Sierra Leone.

The medical reports on the health of the three regiments lately returned is satisfactory. It is rumoured that next winter the whole of them will be sent to the Mediterranean for duty—the 42nd Highlanders and 2nd Battalion of the Rifle Brigade to Gibraltar, and the 2nd Battalion of the 23rd Regiment to Malta. We are pleased to hear that Sir A. D. Home is perfectly recovered, and has already joined at Dover to assume medical charge of the South-Eastern District.

The recognition of the special service rendered by Surgeon-Major Rowe will, it appears, assume the form of a decoration,

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the Earl of Carnarvon having stated in Parliament that it was the intention of her Majesty to bestow the Grand Cross of St. Michael and St. George on Captain Glover, and the Companionship of the same order on Captain Sartorius, Surgeon-Major Rowe, Lieutenants Barnard and Blissett, and Mr. Goldsworthy, all of whom acted under Captain Glover's command. In the absence of anything more substantial, we presume that Dr. Rowe must rest satisfied, more especially as the Colonial Secretary of State intimated that the colony would be called upon to supply a money allowance to these officers to compensate them for such losses and injuries as they were exposed to under the exceptional circumstances of the Volta expedition.

Most of the transports taken up for the war have returned, or are now on their way to England. The 2nd West India Regiment has embarked on board the *Nebraska* for passage to the West Indies, and Cape Coast Castle is reported to have fallen back already into its usual quiet condition, which to those obliged by duty to remain is all the more noticeable after the hurry and bustle of the past few months.

THE GOVERNMENT AND THE MILITARY AND NAVAL MEDICAL SERVICES.

It was stated some little time since, by a contemporary, that Mr. Gathorne Hardy was prepared to go into the whole of the details of the late Army Medical Department Warrant with a view to its reconstruction; and it is now asserted by the same authority that the Secretary of State for War is inclined to regard the present staff medical system unfavourably. If these items of information be correct, here is an opportunity for removing the unpopular clauses and bringing back content to the whole of the Army Medical Service.

So many shortcomings have been laid at the door of the late Government, that, without any partisan feeling, we are quite prepared to hear that the late Warrant was throughout defective. If our ships have been allowed to become unseaworthy, and our army inefficient, through the introduction of the short-service system, errors of judgment may have been committed in other directions. One gigantic institution built up under Viscount Cardwell's administration—the Control Department—it would now seem is unanimously condemned, and is to be done away with. This is certainly not reassuring; and if we find that this pet scheme, inaugurated by Sir Harry Storks, so soon requires reconstruction, it is only fair to suppose that many minor and less important details of legislation, such as the Army Medical Warrant, may equally require to be changed or modified.

Our opinion upon the Warrant of March, 1873, has been so frequently expressed that it is needless to go over the ground again. Much in it that promised well was spoilt by undue parsimony, and for this the Director-General of the Army Medical Department was certainly not to blame. The unification of the Service was generally regarded as likely to prove a benefit to army medical officers; but we shrewdly suspect that it was adopted in opposition to the opinions prevailing at the Horse Guards, otherwise the difficulty of carrying it out generally would not have been so apparently insurmountable. As the case now stands, the system is neither staff nor regimental, and the Secretary of State for War will confer a boon upon the Service if he will decide once for all upon which of these two footings it is to be placed for the future. If it really be true that Mr. Hardy regards the staff system unfavourably, a modification of the Warrant of 1873 becomes absolutely necessary; and as the present Administration is at any rate not pledged to sacrifice efficiency to economy, a liberal and satisfactory measure may be the result. The present Director-General, with his large experience and great administrative capacities, is undoubtedly the very best person to advise Mr. Hardy on all the debatable points; and if our contemporary has really spoken on authoritative grounds, we are convinced that the Army Medical Service has not for many years past had so good a prospect of obtaining full consideration and justice.

There is every prospect, also, of a new Warrant for the Naval Medical Department; Mr. Ward Hunt, in answer to a question put to him in the House of Commons the other evening, having admitted that the Medical Service of the Navy was not in a satisfactory condition. He regretted the number of resignations which were always being sent in, and the apparent inability to obtain the services of high-class and efficient medical officers, and he expressed his intention of investigating the subject with a view of rendering the Naval Service popular with the medical profession. Science has made such huge strides in these later years, and the social status of those who study medicine nowadays is so much higher than it used to be, that the rough assistant-surgeon of Captain Marryat's novels exists no longer; and the gentleman who has replaced him, finding his position and prospects so inferior to what they would be in civil life, resigns his commission and retires in disgust. If Mr. Ward Hunt can remedy this state of things, and by a new Warrant hold out such inducements that good men will present themselves at the periodical examinations, he will have done much good in remodelling at least one portion of the Naval Service, which has been a weak spot in Admiralty administration for many years past.

DEPUTATION TO HIS GRACE THE LORD LIEUTENANT FROM THE KING AND QUEEN'S COLLEGE OF PHYSICIANS IN IRELAND.

On Wednesday, the 6th inst., a deputation waited upon the Lord Lieutenant at the Vicregal Lodge, Phœnix-park, Dublin. The following Fellows took part in the proceedings:—Dr. J. F. Duncan, President; Dr. H. Kennedy, Vice-President; Drs. Atthill, Banks, Benson, Sir Dominic J. Corrigan, Bart., Cryan, Duffey, Eustace, Gordon, Hayden, Johnston, Evory Kennedy, Little, Lyons, J. W. Moore, William Moore, Ringland, Sinclair, Stokes, and Finny, Registrar of the College. Mr. L'Estrange also attended. The President read the following address:—

"To his Grace James, Duke of Abercorn, Lord Lieutenant General and General Governor of Ireland. May it please your Grace,—We, the President and Fellows of the King and Queen's College of Physicians in Ireland, beg to offer our congratulations to your Grace on your re-appointment as representative of her Most Gracious Majesty in this country; and we also tender, through your Grace, the expression of our loyal devotion to her Majesty's throne and person. Our College—which derives its existence and powers from charters granted by her Majesty's royal predecessors, King Charles II., and King William III. and Queen Mary—has at all times held in view the high trust committed to it, and has devoted itself to the advancement of medical science, and to securing a succession of highly educated physicians for the service of the State. The King and Queen's College of Physicans has also at various times endeavoured to aid the Government in devising measures of sanitary improvement. At the present moment, when this country stands so much in need of improved sanitary legislation, the College will feel it a duty to place their services at the disposal of your Grace, in giving to such measures as they trust will, at an early date, occupy the attention of the Legislature, all the assistance in their power."

His Grace, the Lord Lieutenant, replied:—

"Mr. President and Fellows of the King and Queen's College of Physicians,—In you I see before me the representatives of one of the most important and intellectual bodies in this country, and I sincerely thank you for your expressions of loyalty to her Majesty, and your congratulations to myself on my return to represent our Gracious Sovereign in Ireland. You have every reason to be proud of your ancient charter, and of 200 years of unsullied history and anxious service in the cause of science. The records of your College give ample evidence of the number of distinguished men connected with your Society, whose devotion to their noble profession has secured universal respect, not only in Ireland, but wherever the claims of science are recognised. I am well aware th

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you have frequently done good service to the State by giving your valuable advice on sanitary matters; and I trust to have frequent opportunities of consulting you on subjects so intimately connected with the comfort and welfare of the community."

The Fellows having been presented by the President, the deputation withdrew.

ST. JOHN'S HOUSE AND THE KING'S COLLEGE HOSPITAL AUTHORITIES.

On Saturday last the governors of King's College Hospital met to receive the report of the referees, Lords Hatherley and Selborne, on the relations of the Sisterhood of St. John's House and the Hospital. The report of the referees we have already given nearly in full, and have only to add that it was moved by Canon Barry, the Principal of King's College, that the report be adopted, and instructions given that it be acted upon. Extraordinary to state, certain of the members of Committee, after agreeing to refer the matter to such distinguished authorities, proposed that their report be rejected—a proceeding which the Duke of Cambridge, who was in the chair, stigmatised as extremely improper. Another proposition for delay was also rejected, and the report of the referees was finally accepted as it stood. The sequel to this ought to be the resignation of those members of Committee who have been most opposed to the authorities of St. John's House, for without that anything like harmonious working is, we fear, impossible; and lack of such harmony is most detrimental to the interests of the Hospital. It is clear that the governors are resolved that the nursing shall remain in the hands of the St. John's Sisterhood, and it is therefore necessary that the lay authorities should be prepared to act on this view. We fear, however, so much personality has already been begotten of the dispute that this would hardly be acceptable to the present members of Committee, who had therefore better make way for others. This would certainly be the wisest and most generous step they could take. Unfortunately the evils have not rested here, for one quarrel has arisen from another. As the result of this, certain well-known members of our profession have come, so to speak, in collision; but on this we do not now desire to speak further.

SOCIETY FOR RELIEF OF WIDOWS AND ORPHANS OF MEDICAL MEN.

The annual general meeting of the Society was held on April 22, by the kind permission of the Royal Medical and Chirurgical Society, in their rooms, 53, Berners-street, Mr. Charles Hawkins, Vice-president, in the chair. A letter was read from Sir George Burrows, President, regretting his unavoidable absence from the meeting, in consequence of an engagement of long standing to act as steward at the festival of the Royal Medical Benevolent College. The Secretary read a statement of the affairs of the Society for the past year, from which it appeared the available income for payment of grants and expenses had been £3013, the grants £2530 to fifty-six widows and thirty-four children, the expenses £208, leaving a balance of £275 to meet any fresh application for assistance. Legacies of the value of £1500 had been received. The funded property had been increased by the purchase of £1772 New Three per Cents. (stock). The list of members showed a further decrease of eight, the Society consisting of nine honorary, 159 life, and 229 subscribing members. During the year the Society had lost by death two vice-presidents, two directors, and one of the treasurers. The usual business of such meetings having been concluded, the meeting was made special to consider some alterations in the by-laws proposed by the acting Treasurer, Mr. Fuller. The alterations, with slight amendments, were carried, and referred for confirmation to the next general meeting, to be held on May 13. The alterations were to facilitate the election of members, and to give the directors, in the case of members of some standing obliged through ill-health to discontinue their subscriptions, the power of granting some assistance to their widows and children. A vote of thanks was passed to the editors of the medical journals. After the usual vote of thanks to the chairman, the meeting was brought to a close. The officers of the Society take the opportunity of earnestly requesting the members to attend the meetings. It was with the greatest difficulty on this occasion that the required quorum of nine could be formed to constitute the meeting.

GUY'S HOSPITAL FESTIVITIES.

It has no doubt suited the convenience and added to the pleasure of a large number of old Guy's men now resident in the country, and also been agreeable to the ladies of their families that this year the biennial festival and the *conversazione* have taken place on successive evenings. A precedent has thus been made which it would be well to follow in future if possible. Thanks to that *esprit de corps* which is always such a strong characteristic of the *alumni* of Guy's Medical School, as well as to the exertions of the indefatigable and popular honorary secretary, Mr. Arthur Durham, the biennial festival of 1874 was, like so many of its predecessors, an eminent success. It was held at Willis's Rooms on Tuesday, May 5, John Cooper Forster, Esq., being the chairman. The reception-rooms were opened an hour before the dinner-hour, to give old friends an opportunity of meeting and chatting over past associations, present engagements, and future prospects—an opportunity of which advantage was freely taken. The speeches were numerous, but effective; and those speakers who are or have been teachers in the School were all received with an enthusiasm which is at once as creditable to the past and present students as it must be gratifying to the staff. The members of the Guy's Glee Club added much to the enjoyment of the evening by a capital selection of vocal music.

On Wednesday evening, May 6, a very large company of ladies and gentlemen, who had been invited by the treasurer, Thomas Turner, Esq., attended the *conversazione* at Guy's Hospital. It was held in a portion of the new building. Some of the out-patient rooms were fitted up as refreshment-rooms and cloak-rooms; and two wards—Astley Cooper and Philip—were devoted to the exhibition of numerous and beautiful models, works of science and art, jewels, china, glass, antiquities, aquarium, etc. Besides the usual show things at such meetings, a feature of special and present interest was the exhibition of several relics from Cape Coast and Coomassie, as well as (by the kind permission of Sir Richard Wallace) some gold spoil from Ashantee, including the State swords, the mask, and the Imperial eagles.

AN ARTIFICIAL LARYNX IN ACTUAL USE.

Dr. Carl Schwaighofer, of the General Hospital, Vienna, writing to the *Irish Hospital Gazette*, gives the following interesting account of an artificial larynx invented for a patient whose larynx had been extirpated by Billroth:—

"As the slight fever which followed the operation soon disappeared, and as the patient, who was soon able to take nourishment without the stomach-pump being brought into requisition, quickly gained strength, the question of the possibility of crowning the success by restoring to him the faculty of speech, or, in other words, the possibility of making an artificial larynx, was soon mooted. This was at first attempted by connecting the external wound with the fauces by means of a tube in which a sort of tongue was inserted, which did not, however, prove successful. It was found that the best means of producing the voice was a vibrating metal tongue, for thin india-rubber, which was first used, soon became spoiled from the least particle of mucus, which at once interfered with its vibration, and also on account of speedily losing its elasticity required to be too often renewed.

"The wound healed rapidly, and what after the operation was four inches long, had soon contracted so much as to neces-

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sitate the use of the knife to allow of the insertion of a medium-sized canula. In like manner the cavity formed by the removal of the larynx contracted so much that its sides were only kept from contact by the apparatus which was inserted. The effect of the contraction of the cicatrix on the trachea was to draw it powerfully upwards, and thus the wound made in the œsophagus by the operation was considerably lessened. The apparatus invented by Billroth's assistant, Dr. Gussenbauer, consisted of three parts—1. An ordinary Trendelenburg's canula, of large calibre and good length, and having a large oval aperture at the point of greatest convexity. This canula was inserted into the trachea, and fastened in its place in the usual way. 2. A second canula with the same curvature, and just so much smaller as to fit accurately within the first. This also had a large corresponding oval opening. This canula was inserted into the former, but in a contrary direction: that is to say, its inner end, instead of pointing as that of the first did, towards the trachea, pointed towards the pharynx. In these positions the two oval openings corresponded, and the passage for the air from the trachea to the mouth was free, and the patient could, by closing the opening, breathe through his mouth. That part of the apparatus which was intended to produce the voice consisted of a short, straight canula, open at one end, closed at the other. In its walls, and exactly opposite each other, were two openings. Further, it was divided down the centre by a partition, in which was inserted the metal tongue, which by its vibrations produced the voice-sounds. This latter canula was inserted into the second, and fixed by means of a sliding ring. When the three canulæ were in position, the openings corresponded; and when the patient closed the outer opening the air was compelled to pass through the third canula, and in so doing to cause the metal tongue to vibrate and thus produce sounds. The patient is, however, able to inspire through the lower opening without causing the metal tongue to vibrate sufficiently to produce a sound. By means of this apparatus the patient can make himself understood in a large room, although, as would be expected, the tone of his voice, though not to say unpleasant, is rather monotonous. He has no difficulty in taking solid food, and it is only when he tries to swallow fluids rapidly, that a drop sometimes falls into the canula; which is, however, easily again cleared by the patient coughing. The man has recovered his former healthy and robust appearance, and as no attempt had been made at the formation of further new growth up to the beginning of March, the man was then discharged from hospital, and has returned to his former occupation a living and happy triumph of modern surgery, and, more especially, of the skill and daring of Professor Billroth."

HOSPITAL SATURDAY.

It would seem that another working-man's organisation, in opposition to the Leicester-square Committee, has been formed for the purpose of promoting a collection on a given Saturday. A public meeting of some hundreds of working men resident in the borough of Southwark was held for this object on Monday evening last at Bermondsey-square, under the presidency of Sir Charles Dilke, M.P., who, in opening the proceedings, alluded to the efforts which had been made in a similar direction at Glasgow, where the working classes had contributed between £7000 and £8000 to the Hospital Fund. Messrs. P. Kenny, G. Richardson, E. Hankins, and F. E. Kirke Bailey also addressed the meeting. A local committee was appointed, and resolutions in furtherance of the object of the meeting adopted.

THE ROYAL ASTRONOMER OF IRELAND ON THE FOUNDATION OF DR. FRANCIS ANDREWS.

On Saturday, the 2nd inst., the Board of Trinity College, Dublin, appointed Robert Stawell Ball, LL.D., Astronomer Royal of Ireland, the post having become vacant through the resignation of Dr. Franz Brünnow. Dr. Ball's career has been one of unusual distinction. He was elected Science Scholar of Trinity College, Dublin, in 1860, and subsequently won the University Studentship in Mathematics. He is author of a treatise "On Experimental Mechanics." Some years ago he was chosen Professor of Applied Mathematics in the Royal College of Science, Dublin, and last November he was appointed Examiner in Arts (Mathematics) under the Conjoint Medical Examining Board for Ireland. The emoluments of this chair amount to £700 a year (less £90 payable to an assistant), and the Astronomer Royal resides at the Observatory, Dunsink (or, more correctly, Dunsinagh), co. Dublin. This is probably the last appointment to a professorial chair which will be made by the Board of Trinity College as at present constituted, inasmuch as a proposed Queen's Letter is at present under consideration by the Board, the Junior Fellows, and the Senate of the University, having for its object the placing of the government of the College on a new basis.

MEDICAL SOCIETY OF LONDON.

The annual oration of this Society was delivered on Monday last, May 4, at the Rooms, Chandos-street, Cavendish-square, to a crowded audience, by Mr. Brudenell Carter. He chose for his subject, "The Waste of Life by Preventable Disease." Mr. Carter, in his usual eloquent style, narrated the history of our sanitary legislation, and made some well-deserved strictures on the Local Government Act, especially the appointment of barristers as inspectors; he also referred to the treatment of medical men by the authorities, among other points, terminating his discourse amid general applause. After the oration, the entire suite of rooms was thrown open, and a brilliant *conversazione* followed, at which a most interesting collection of objects was shown. Ashantee, Abyssinian, Arctic, and Indian curiosities were contributed by Mr. Royes Bell, Drs. Haden, Rae, and Fayrer. Some rare and beautiful pictures were exhibited by Sir Henry Thompson, Drs. Hare, Wynn Williams, and Ambler. A cardiograph was shown by Dr. Sibson, and other specimens by Drs. Brunton, Sansom, and Theodore Williams, Messrs. Braine, Brown, Napier, Maunder, and Spencer Watson; and microscopes and other philosophical instruments by Messrs. Arnold, Hawksley, Horne and Thornthwaite, Meyer and Meltzer, Ross and Son, and Tisley and Spiller.

WEST KENT MEDICO-CHIRURGICAL SOCIETY.

On Friday, May 1, the last meeting of the eighteenth session was held at the Royal Kent Dispensary, Greenwich-road; F. Moon, M.B., President, in the chair. George Johnson, M.D., F.R.C.P., F.R.S., read a paper, "On some Practical Gains which have resulted from the Use of the Laryngoscope." The annual dinner of the Society will take place on Thursday, June 18, at the Ship Hotel, Greenwich, at 6 for 6.30 p.m. precisely; the President, Frederick Moon, M.B., in the chair.

WATER SUPPLY OF THE METROPOLIS.

The water supplied to the metropolis during the month of April appears by Dr. Frankland's report to have been, as usual, of superior quality from the Lea, by the East London and New River Company, but that drawn by the Kent Company from deep wells was "the only water delivered in a clear and transparent condition"; while that drawn from the mains of the Southwark and Lambeth Companies "contained abundance of living and moving organisms."

REGISTRATION OF BIRTHS AND DEATHS.

A Bill has been printed which proposes to amend the law as to the registration of births and deaths in England, and another Bill to consolidate the law respecting the registration of births and deaths at sea.

GERMAN SURGICAL ASSOCIATION.

The Third Congress of the German Surgical Association was opened at Berlin on April 8, by Professor Langenbeck, the President. The list of visitors at the meeting includes the name of at least one English surgeon—Mr. Mac Cormac, of St. Thomas's Hospital.

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CHANGES IN GERMAN PROFESSORIAL CLASSES.

Professor Recklinghausen, of Strasburg, has not as yet positively accepted the chair of Pathological Anatomy at Vienna as successor to Rokitansky. Professor Ziemssen, of Erlangen, has been invited to Munich to occupy the chair of Clinical Medicine, vacant by the death of Dr. von Lindwurm. Professor Leube, of Jena, will probably succeed Ziemssen at Erlangen, and Dr. Senator, of Berlin, replace Leube at Jena.

PARLIAMENTARY.—POLICE AS INSPECTORS OF NUISANCES—NAVAL MEDICAL OFFICERS—SANITARY ACTS—FACTORY ACT AMENDMENT BILL.

In the House of Commons, on Thursday, April 30,

Mr. Cross, replying to Mr. Neville-Grenville's question respecting the employment of police as inspectors of nuisances, said that it was not the intention of Government to make any alteration in the existing order in respect to sanitary matters in England, as these were under the Local Government Board, and there was a universal feeling against the police being so employed, whereas in Scotland a contrary opinion prevailed.

Mr. W. Hunt informed Mr. M'Arthur that the reduced state of the medical officers' list was being very carefully considered at the Admiralty.

Mr. Sclater-Booth, replying to Mr. A. Brown, stated that there was no power to prevent persons using private wells the water of which was impure; that this and many other points connected with the Sanitary Acts had been under his consideration, and that he hoped in a few weeks to introduce a measure on the subject.

On Wednesday, May 6,

Mr. Mundella moved the second reading of the Factory Acts Amendment Bill, the principal objects of which are to raise the age of children engaged in factories and lower the hours of labour for young persons and women. Mr. Cross proceeded to propound a scheme which the Government were prepared to introduce, by which the hours of labour would be reduced to fifty-six per week, and that after 1875 children must be ten years old before commencing work in a factory. After some remarks by Mr. Forster and Mr. Fawcett, Mr. Mundella decided to postpone the second reading of his Bill pending the introduction of the present Government measure.

LETTERS FROM MADRAS.

No. XI.

Amongst the Tombs—Burning the Dead—Sects that Burn and Sects that Bury—A Country Burial-place—Perfect Burning better than Imperfect Burial—Burning Dictated by Religious, not Sanitary, Reasons—Why the Hindus Burn their Dead—Diversity of Races—A Remonstrance against Burning the English Dead.

I may now ask your readers to accompany me in a walk amongst the tombs, for the cemeteries of a strange people have a singular interest for everyone who desires to know their religion, their civilisation, their natural affections (of which care for the dead ought to be one of the strongest), and the evidence which cemeteries furnish of the succession of different races as lords of the soil. It was not much that an invalid sojourner at Madras could learn, but that little was of interest; more especially as the disposal of the dead is acquiring importance in a politico-economical and sanitary sense. We see with apprehension the growth of wildernesses of hideous tombstones, such as the London suburban cemeteries threaten to become; but we look with still greater dismay at the mass of corruption hidden beneath the surface,—of bodies whose decomposition is arrested by burial in an unfit and impenetrable clay soil, or which have been cased in lead and packed away in vaults and cellars dignified with the name of catacombs. And yet what an improvement these cemeteries are on the old city graveyards and church vaults!

At Madras the bodies of about one-third of those who die are burned, and it is easy to see the process and to compare its merits with those of burial, when the burned and buried belong to the same stratum of society, and both processes are carried out with equal observance.

On the outskirts of the town are several waste and desolate unfenced pieces of land, where both burial and burning are practised. There is one in particular, called Choolay, a dismal swampy waste, part of which was taken by Sir C. Trevelyan and converted into a people's park—a highly ornamental and much frequented *jardin des plantes*. There is another called Ottaree. Now, my friend Mr. Ramachendra Row, J.P., a zealous patriot and orthodox Brahman, to whom I am indebted for many an hour's conversation rich in linguistic and antiquarian lore, tells me that "Choolay" signifies a kiln, and "Ottaree" a brickfield, from "*odoo*," a tile. If this be so, we may see why it was a "potter's field" that was bought to bury strangers in, according to the narrative of St. Matthew (xxvii., 7), for we can conceive of no piece of ground more likely to be sold at a low price than a disused brickfield, scarred and seamed as it is with the holes and pits made in digging out the clay. What is now the Choolay quarter (for the name is applied now to the whole of a low suburb) was marked as "brick-kilns" in a map of Madras dated 1733.

The actual process of burning here is simple and effective, and well suited for a people amongst whom fuel is one of the dearest of the necessaries of life, besides being subject to a tax which has been greatly mitigated by the present Governor. A bed is prepared: it is said in the old books that it should be as long as a man with his arm extended above his head, a fathom wide, and a space deep; it is also said that it ought to be on rising ground, so that the water poured on the ashes may easily run off. On this bed is laid a layer of wood and "bratties"—that is, cakes of dried cow-dung, which in this country is the most frequent form of fuel. The body, which is brought on an open bier, is laid on this, and covered with fresh layers of wood and bratties. Fire is set to the heap, which is then covered with a thinnish layer of earth. The process, which lasts altogether twelve hours or more, is divisible into two portions: First, the fire is allowed to char and smoulder, out of the free access of air, till all the heap becomes a glowing red-hot mass, just as in charcoal-burning or ballast-burning at home. But after the fire has penetrated the whole heap it is poked up, the air admitted, and there is a thorough blazing fire, which goes on burning till all the fuel is turned into ashes, amongst which are discernible some of the hardest bones—as the malar, temporal, and shafts of the long bones—semi-vitrified. I have nothing to say, from my own observation, of the religious ceremonies with which burning is attended, nor yet how the relatives come and extinguish the fire, and wash the ashes with milk, and put some of the bones into earthen vessels, to be carried and cast into some water—if a holy stream, the better.

As performed here, in ordinary cases the process is very simple, and very unlike what is depicted in missionary tracts or illustrations of Pope's Homer's "Iliad," where one sees a body on the top of a huge pyre of wood artistically arranged, with flames blazing out so as to endanger the bystanders, as told in the well-known scene in Terence's "Andria." But it is a very thorough method of getting all the heat that is to be got out of a certain quantity of fuel. I have often asked how much it costs to burn a body, and have never had two answers alike. It seems that there are certain funeral fees due to the keeper of the ground and the like, but I am told that the actual cost of the necessary fuel need not exceed eighteenpence. Of course there is no end to the sandal-wood, perfumes, ghee, and other appliances for burning a rich man sumptuously.

As the process is generally managed, it is just as offensive (and not more so) as it must be from the smoke, which is pretty copious during the first or charring stage—just as small coal makes a fire smoky before it becomes heated through. The smoke itself is not so bad as that from a smouldering heap of ballast near any English railway.(a) For months I lived near a burning-ground on the beach at Madras, where perhaps half a dozen bodies were consumed every week, and used to pass it several times a day, and it was some time before I knew that burning was carried on behind that wall. On more than one occasion the blazing embers near the close of the process seemed absolutely aromatic, possibly because sandal-wood or spices had been added. On the other hand, I have heard people complain of great offensiveness, though this, I believe, arose from some tidal ditches close by, into which the sewage of an adjoining suburb is allowed to drain. On asking whether the dwellers around were annoyed by the smoke, I am

(a) Ballast is made by mixing lumps of clay with small coal, and setting a heap of it on fire. It gradually smoulders till the coal is consumed and the clay burnt into a coarse, friable brick, used for the substratum of roads, etc. It is said to have been invented by the elder Brunel.

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told that there ought to be no such dwellers. The burning-place should be an open spot away from houses; if any low people, such as Pariahs, low Mussulmen, and the attendants on the graveyard choose to squat there, it is at their own pleasure. It is said, too, that when the body begins to be acted upon by the fire, it is apt to start up in a half-sitting posture (from the shrinking of the muscles); but this is scarcely worth mentioning.

Burning and burial seem generally carried on in the same Hindu burning-grounds; the votaries of Vishnu are burned, and the votaries of Siva are buried—(the natives, in their quaint English, call burial "putting into mud")—side by side without controversy. But sometimes, as in the little village of Vellicherry just outside Grundy Park, where I am writing, the separation extends to the dead. The burning-place is a simple oblong heap of calcined bones and ashes on a bit of wayside common, just outside the park gates, whilst the burial-place is in a field about a mile from the village. There are no tombstones over the lowly graves, but the place is consecrated by a kind of open-air temple or enclosure, which seemed to me a humble miniature resemblance of a megalithic monument, like those of Brittany and elsewhere. There was a quadrangle bounded by upright stones, with a petty altar in the middle, and one very large stone in the centre of the row facing the entrance. These "stones" were concocted of stucco, whitewashed and painted in red stripes. The edifice was quite new, and was palpably devoted to the worship of the chief stone, the "Lingam."

Thus we see that burning is not universal. On inquiry we find, too, that it is not the most ancient or sacred method of disposing of the dead. In those early hymns known as the "Vedas," composed before modern Hinduism had become developed, before transmigration (therefore before the time of Pythagoras) and before caste were known, and whilst the modern Hindu divinities were scarcely known by name, burial was the common practice. Let me quote from one of the earliest "Vedas." After describing the ceremonial, by which in turns all the surviving relatives take leave of the departed, it thus addresses the earth:—

"Open thyself, O Earth, and press not heavily;
Be easy of access and of approach to him.
As mother with her robe her child,
So do thou cover him, O earth!"

In a passage quoted from another hymn it is said—

"In earth's broad unoppressive space
Be thou, O dead, deposited:
The offerings thou hast made in life,
Let them drip honey for thee now."

In another verse we have a hint of a coffin, of which no mention is made in the other hymns:—

"Let not the tree press hard on these,
Nor yet the Earth, the Great, Divine,
Among the fathers finding place,
Shine thou with those whom Yama rules."

Indeed, in the freedom of that early period, any convenient method of disposing of the worthless shell from which the spirit had escaped seems to have been held allowable. Then a verse says:—

"The buried and the cast away,
The burnt, and those who were exposed,
These Fathers, Agni, all of them,
To eat the offering hither bring."

I do not pretend to the slightest acquaintance with Vedic or any other linguistic or antiquarian lore; I offer the above extracts from William Dwight Whitney's "Oriental and Linguistic Studies" (New York, 1873),(b) because they interest me as explaining what I see with my own eyes, and they may interest others who do me the favour to read these letters, because they cast a light on the origin of burning as a religious rite instead of burying.

Now, as I said before, all sects do not burn—some bury. First, as my friend Ramachendra Row told me, very young babies are not burned, but are buried, and often deep, in the garden near the house. Why? Because otherwise their poor little bodies would be dug up, and their skulls be taken by "magicians" for the practice of some infernal incantation, to the injury of their neighbours. (Whilst I am writing this—March 16, 1874—I see in the *Madras Mail* of this day an account from Pondicherry of two magicians, who, wanting a child's skull, decoyed away a pregnant woman, stupefied her, brought on labour, and cut up the infant.) But, secondly, all the great Saiva sects, and all Lingayets, bury, and do not burn. Most of my readers have heard of the modern so-called Hindu Trinity—Brahma, Siva, and Vishnu. Brahma is considered a divinity in the abstract, and, as he hurts nobody, he is not worshipped. Siva and Vishnu, with their innumerable transformations and incarnations, divide the religious world between them. It seems probable that the Sivaites possess an earlier religion, or the vestiges thereof; they seem to be more in the condition of Nature-worshippers, and adopt as the symbol of the Divinity that rude natural emblem known as the Lingam. In Madras proper, out of a total population of 397,552, there are 132,623 Vishnavites, 172,669 Sivaites, 3319 Lingayets.(c) If, then, we consider that none of the 172,669 Sivaites, nor of the 3319 Lingayets, nor of the 50,964 Mahommedans, nor of the 15,626 Europeans and Eurasians, nor of the 21,441 native Christians, nor of the 910 "other religions" enumerated in the magnificent census returns of Dr. Cornish, are burners, it comes to this—that out of a population of 397,552 persons only 132,623 burn, and 264,929, or just double the number, bury. Then, as the deaths registered in 1871 were 13,034, if we suppose that the sects die in equal proportion, about 8300 would be burned in a year, or about 23 per diem.

But let us return to the Choolay and the burial of the poor. I went up to a place where a man was digging a grave in a sandy spot; by his side there lay an oblong bundle of matting, from one end of which there stuck out two delicate feet. This, they told me, was the corpse of a poor young thief who had died in prison that morning, and for whom an economical grave was being dug; and I could not help admiring the skill of the grave-digger, who, as he worked in the grave with a mamootie—a tool like a short-handled hoe—took care not to move one grain of sand more than was necessary.

But now for the result. In going amongst the burning-places, there were evidences of greater or less completeness in the calcination of the bones. Still, they were all burned into fragments of clinkers, utterly deprived of all organic matter and of any very palpable human shape. Seeing me poking with my stick amongst a heap of bones, the graveyard man went to a little distance and returned with both hands full. "This bone, sar," said a volunteer interpreter amongst the half-score of bystanders, "young woman's arm; this, young man's leg, sar;" and, so saying, he gave me bones fresh and wet, as if out of a macerating tub in an osteological museum: "These are not burned," I said. "Oh no, sar: these buried six months ago." He next showed me the two parietal bones of a girl with all the skin and hair dried on; and last of all a skull. It looked wet and heavy. He gave it a shake, and, lo! there, horrid to say, were the remains of the brain in it. I felt very sick, and soon got away from the Choolay.

The moral of this is, that to burn thoroughly is more decent than to bury for a short time and dig up the remains before they have lost their human form and organic components. But this says little as to the relative merits of each process when done thoroughly. Now I must go back one or two steps.

I was saying that not all Hindus burn their dead; and showed that first young infants, and secondly the worshippers of Siva and of the Lingam, are buried, and not burned; and this brings us to the root of the custom of burning, which is not adopted on sanitary, but on religious grounds. It is a refinement of Vishnuism—a purification by Agni, the God of Fire, and a sacrifice. For although the Vishnavites, as a rule, are burned, yet there is, as I am told, one notable exception—it is that of the Sannyasis, persons who leave their wives and families, to pass their lives in beggary and penance, and who are not burned, but buried. They are pure already. On the other hand, the dancing-girls attached to the temples, when they die, are buried with particular regard to purification; and some holy fire is sent from the temple to light their funeral pyre. I do not know how I can better wind up this part of the subject than by the following quotation from Whitney:—

"It is not a matter for surprise that the method of incremation came by degrees to prevail over all other forms of burial. Agni (Latin, *ignis*), the fire, and the God of Fire, was to the Hindus, as to other primitive peoples, the medium of communication between earth and heaven, the messenger from men to the gods, and from the gods to men. Whatever with due ceremony and invocation was cast into the flames on

(b) See also Horace Hayman Wilson's Essay on Funeral Ceremonies of Hindus, in his "Essays and Lectures," vol. ii., p. 270.

(c) The Lingayets are a kind of Hindu Puritans. All Siva's worshippers worship the Lingam; but the Lingayets worship it, and it alone, and reject the remainder of the Sivaite mythology.

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Agni's altar, was borne away upward and delivered over to the immortals. To burn the body of a deceased person was accordingly an act of a solemn sacrifice, which made Agni its bearer to the other world, the future dwelling of its former possessor. There was less of spirituality, doubtless, in this doctrine than in that which regarded the body as of no consequence, and the soul alone as capable of entering upon the other existence; but it seems rather to have gained in distinctness and in currency, and it was quite in harmony with other parts of the Hindu belief."

Before I proceed further with my walks amongst the tombs of this place, I must ask you to correct a statement which I made too absolute in a former portion of my letter. I said that the disciples of Siva, as a rule, bury their dead. In this I was wrong, for in Southern India, to which alone my remarks apply, many Sivaites burn. Still, as a rule, it is as Dr. Cornish puts it in his most interesting report on the late census of Madras. The "Hindus," or inhabitants of India, are as various in race and language as the "Europeans," or inhabitants of Europe. It were as great a mistake to suppose that all Hindus are Aryans, as to suppose that all Europeans are Teutons. Dr. Cornish reckons that only about one-thirtieth of the inhabitants of Southern India are Aryan, including the Brahmans, although these Brahmans have brought most of the other races into at least nominal conformity in religious rites. Those tribes which have least in common of blood or religion with the Aryans, generally bury instead of burn their dead, are blacker in colour, eat animal food, drink intoxicating liquors, have loose ideas of the relations of the sexes, and worship the devil instead of God. Much of the Siva worship is really devil-worship. Thus more Sivaites bury than burn, but yet not all.

When, then, we come to sum up the reasons why the Hindus burn their dead, we put first the ceremonial or religious motive; and secondly, the difficulty of preserving buried bodies from the ravages of jackals and hyenas.

But when we hear of proposals for substituting burning for burial in England, we can only hope that they may be most thoroughly sifted before they are put into practice. I have already contrasted imperfect burial with perfect burning; but what shall we say of imperfect burning—of bodies only scorched, or left half burned?—things that I have heard of. Whilst fully admitting the mischief attendant on the present system of burial, still, taking the thing on philosophical grounds, I would contend that burial is a better process than burning, when each is well done.

With burial at a proper depth and proper distances, in a proper soil, and with the honest purpose to insure complete and speedy decomposition, and not to hinder this by means of metallic or oaken coffins, embalming, and vaults, all contamination of earth, air, and water is avoided. The offensive gases are absorbed by Mother Earth, and stored up for the nutrition of coming broods of organised beings.

On the other hand, with burning there must be contamination of the atmosphere by ammonia, carbonic acid, and tarry matters carried up by the smoke. This may be of little consequence in India, where the atmosphere is wonderfully light and bright; but what shall we say of a project for adding the gaseous products of burnt human bodies to the fogs that cling around our English towns during many months? London fogs are bad enough as it is, but what should we say if we had besides to inhale the smoke of the 1500 dead bodies who figure most weeks in the Registrar-General's Report? It may be said that the gaseous products may be collected and utilised; but this would really be distillation, and it is very doubtful whether public prejudice will allow human distilleries or gasometers to be established. We ought to be thankful to anyone who takes the trouble to expose the evils of the existing system of burial; but defend us from any further contamination of English air!

(*To be continued.*)

THE health of the Punjaub (reports the Sanitary Commissioner in his return for the week ending February 28 last) continues good; that of the large towns particularly so. The town of Beri, in Rohtak district, is suffering severely from small-pox. There was no death registered under the head of [illegible]. The deaths from small-pox, which in the previous [illegible]ere 215, had risen to 224.

ABSTRACT OF

THE LUMLEIAN LECTURES.

DELIVERED AT THE ROYAL COLLEGE OF PHYSICIANS.

By FRANCIS SIBSON, M.D., F.R.C.P., F.R.S.,
Lately Physician to St. Mary's Hospital, etc.

ON THE INFLUENCE OF BRIGHT'S DISEASE

(1) ON THE HEART AND ARTERIES, AND (2) ON THE PRODUCTION OF INFLAMMATION.

LECTURE II.

DR. SIBSON commenced his second lecture by giving the details of the case to which he had made an introductory reference at the end of his first.

A bricklayer, aged 30, was admitted into University College Hospital, under the care of Dr. Wilson Fox, on January 28, 1874, suffering from acute Bright's disease. He had been a strong man, fairly steady, with a good family history. He had never had scarlatina, rheumatism, gout, or syphilis. He stated that on January 11 he had been exposed to cold and wet; that that evening he had headache; that next morning his face and legs were swollen, his eyesight dim, and his appetite lost; and that he had since suffered from these symptoms, with sleepiness and occasional sickness. The swelling increased; the urine was small in quantity; and on the 21st he gave up work. When examined, on January 29, he presented a full puffy face, and moderate general dropsy; and the first sound of the heart was found to be doubled at the apex over a limited area. On the 30th the first sound was heard double over the whole of both ventricles, from the aorta and pulmonary artery above to the eighth costal cartilage below. On pressing the hands on the chest-wall corresponding with the aorta immediately to the right of the upper part of the sternum, the aorta could be discovered to be enlarged and spread out in the intercostal spaces, and a second beat could be distinctly felt. On auscultating in this region the second sound could be heard much louder than the first, which was double, making altogether a triple sound. At the pulmonary artery the same character of sounds was audible; they were evidently conveyed from the aorta. At the root of the neck the first sound was single; the second much louder. The sphygmographic tracing indicated laborious ventricular action by the flattening of the top of the curve, and arterial rigidity by the slow descent of the same. (Dr. Sibson demonstrated these and the other points in the sphygmographic tracings, to which reference will subsequently be made, by means of the oxyhydrogen lamp.)

On February 2 the patient was again examined. He had been comatose on the previous day, and was bled to ten ounces, with the effect of considerably relieving the symptoms. He was now rather drowsy. The urine became nearly solid on heating, and contained numerous small blood-casts. The second impulse was still distinctly palpable over the aorta; the second sound was still very loud, but probably less so than before. The reduplication of the first sound was more limited in area—to the lower half of the præcordium; it was lost just below the nipple and over the great vessels—*i.e.*, the sign was lessened in intensity and limited in area.

On February 14 the signs were essentially the same, but less diffused; the pulse was as before; the second sound loud in the second right space, but less so; the double first sound was limited to an area just inside the nipple and adjoining the cartilages, being lost over the left ventricle and the greater part of the right. It was therefore evident that there was a marked alteration in the reduplicated first sound since the bleeding. The double stethoscope was now employed to discover which of the two elements of the first sound had disappeared, and it was found that the second element belonged to the left ventricle, and the first to the right. At the next visit the radial artery was felt to be less tense than before; the second beat and sound were unchanged over the aorta, but were nearly as powerful over the conus arteriosus and the root of the aorta as over the aorta itself. The first sound was again double over both ventricles, and its first element was found to be loudest over the right ventricle, and its second over the left. Remembering an experiment of Dr. Broadbent's with nitrite of amyl, in which the effect of diminishing the arterial tension was demonstrated sphygmographically, Dr. Sibson administered the drug to this patient. Before the administration the first sound was heard double, exactly as

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before; but when the influence was complete the first sound became continuous, and it was remarked that the second was also less loud. So far for this case of acute Bright's disease.

The lecturer now proceeded to give his explanation of these signs once for all. The chain of signs is: Tense radial artery, a second beat over the aorta, an intensified second sound and muffled first over the aorta, and a doubling of the first sound. To analyse these signs—1. The tension of the radial artery: The pulse feels tight, it never relaxes, it becomes tortuous and leaves its bed, it stands out prominently and hard like a tendon. As the patient wastes the volume of the artery diminishes, but not the hardness. The beating pulse is not so much felt as the artery. The corresponding tracing is feeble, but yet indicates tightness. Now, in Bright's disease the cause of the high arterial tension is the presence in the circulation of the bodily *débris*, and the tension is a measure of the amount of *débris*. 2. The second beat over the aorta was felt in the first and second right spaces, and that for more than one inch from the sternum. The diameter of the vessel is manifestly increased; yet this is not the only factor to be considered. The increase in width involves increase in length; the arch of the aorta becomes widened to the right and forwards, and, pushing aside the lung, comes into contact with the spaces. The second palpable beat is synchronous with the second sound, and is not caused by the closure of the valves, but by the return-wave of the over-tense artery. This is evident. If the return-wave beat only upon the valves or on them and the sinuses, no beat would be felt; the vessel must be exposed and come close to the wall of the chest. An unnatural strain is thus thrown upon the walls of the ascending aorta; and this is the true dicrotism of that vessel. 3. The intensified second sound over the aorta, with metallic quality, indicates a stronger impact of the blood against a more tightly stretched vessel. The sign has been mentioned by Traube, Grainger Stewart, etc., and it was present in all but two of Dr. Sibson's cases, and in these to a moderate degree. A corresponding sign is present over the pulmonary artery in mitral disease. 4. Doubling of the first sound: This sign is best heard or loudest over the septum ventriculorum, which is the home of the double sound. Its explanation is not difficult. The left ventricle ceases to contract at a later period than the right, on account of the greater resistance offered to it. It is for the same reason that the first sound is muffled or absent at the aorta. The entrance of the blood is resisted by the artery, only a small quantity passing *gradatim;* there is thus a small wave of percussion. In anæmia just the reverse occurs—the artery is lax and the first sound is loud.

Still another sign was observed in most of the cases—namely, doubling of the second sound, the second element coming evidently from the aorta. The explanation is easy. If there is a second element in the first sound, we should expect a second element in the second. It may seem remarkable that in half the cases this sign was absent, and that in the worst cases—as, *e.g.*, Dr. Wilson Fox's case, previously recorded. It would seem, indeed, that the artery is then always as tight as it well can be—even in the whole period of diastole,—and that when a little blood enters it the vessel immediately yields and is synchronous with its fellow.

FROM ABROAD.

Parotiditis as a Sequence of Acute Disease.

Professor Crocq, of the University of Brussels, has recently read an interesting paper at the Brussels Royal Medical Society (published in their *Journal de Médecine* for January), having for its title "Parotiditis Consecutive to Severe Acute Diseases."

He observes that this is one of the most serious and remarkable complications occurring in certain acute diseases, and especially in typhoid and typhus fevers, scarlatina, cholera, dysentery, measles, and small-pox. It is always to be regarded as a formidable phenomenon, and is met with at an advanced period of the affection during which it manifests itself. Thus in typhoid it occurs towards the third or fourth week, in scarlatina at the period of desquamation, and in cholera during the stage of reaction. The old writers admitted two forms of parotiditis, which they termed "critical" and "symptomatic," basing the distinction on the theoretical views of disease which then prevailed. A parotiditis was regarded as critical when it appeared towards the end of the disease, not only without impeding its resolution, but even favouring this by inducing a useful revulsive action, and diverting the peccant matter from the nobler internal organs to the salivary gland. When it appeared at an earlier period, and seemed only to add to the violence of the disease, it was termed symptomatic. The former was regarded of favourable, and the letter of unfavourable augury; but no proper character distinguished the one from the other. The view that then prevailed, that the cause of the parotiditis was the determination of the morbific principle to the parotid gland, is still admitted by some under the qualification of the term "metastasis," indicating, however, a purely hypothetical condition. It has also been sought to establish a more rational explanation by attributing the glandular affection to a pyæmic process; but this would only apply at most to a few of the cases. Even in certain cases of typhus and typhoid, which may seem to admit of this interpretation, the parotiditis coexists with no other alteration which can be attributed to pyæmia. It also is far from always going on to a state of suppuration, while this is rarely absent in lesions which are really pyæmic in their nature. Again, in true traumatic pyæmia we do not find any localisation effected in the parotid gland, this being one of the organs in which the metastatic abscesses of that affection are most rarely met with.

Numerous observations enable Professor Crocq to establish what he believes to be a truer genesis of the phenomenon. Parotiditis is always accompanied by well-marked stomatitis, characterised by redness, turgescence, and hyper-secretion of the mucous membrane of the mouth. This membrane is covered by deposits of various nature—mucous, epithelial, fuliginous, lining a more or less extended surface, especially the back of the tongue, and often also the gums, the teeth, the lips, and the inside of the cheeks. This stomatitis is well marked in typhoid and in exanthematic typhus, occurring especially at an advanced period of the disease, when it is aggravated by the action of the air on the buccal mucous membrane, as the patients generally lie with their mouths open. It is then also that the parotiditis is observed. The same conditions are observed to be present in the cases in which parotiditis supervenes during the stage of reaction in cholera; and in scarlatina and variola, stomatitis is one of their ordinary symptoms. In measles, too, the buccal membrane is often the seat of an eruption resembling that of the skin, and very appreciable, especially about the palate. When in the course of this parotiditis pressure is made on the parotid duct, a drop of pus is observed to issue from its orifice—a fact which M. Crocq has never found absent. It exists, indeed, from the very first appearance of the complication, when the patient only complains of some pain in the parotid region, or some swelling is observed to exist there; and it is alike observable in the cases which terminate by resolution as in those which go on to suppuration—proving that this drop of pus does not proceed from suppuration of the gland, since it precedes and is independent of it. In fact, the stomatitis having reached a certain degree of intensity is propagated along the duct and its ramifications to the substance of the gland. In the same way the submaxillary gland may become affected, and a drop of pus be pressed out from the orifice of Wharton's duct. But this is quite exceptional, the stomatitis at the under surface of the tongue being generally absent or only slight.

This transmission of catarrhal inflammation to the excretory ducts and the glands themselves is no isolated occurrence, being met with in other parts of the body. Thus, the orchitis which succeeds to blenorrhagia is due to the propagation of the inflammation from the urethra by the vas deferens to the epididymis and the testis, this scarcely ever occurring before the fifth week, the epoch at which the irritation has reached the prostatic portion. This affection, exactly like parotiditis, was long regarded as being due to metastasis or to the action of peccant matter. In most cases, also, catarrh of the biliary ducts results from an extension of gastro-duodenal inflammation to the choledochus; and other inflammations may extend to the hepatic parenchyma itself and give rise to hepatitis—a fact M. Crocq has several times had the opportunity of observing.

Most authors have considered this inflammation of the parotid as originating in the cellular tissue surrounding it.

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and spreading thence to the glandular substance. Whenever M. Crocq, however, has had the opportunity of examination after death, he has always found the gland itself and its excretory duct the seat of inflammation. It is easy to explain how the error has arisen, as all the phenomena of inflammation—such as redness, exudation, and suppuration—are often much more marked in the interstitial cellular tissue, and they may even extend to the superficial cellular tissue, and there become predominant. This does not imply that the phenomena have originated there, but, as may easily be admitted, that they find there a soil better suited for their evolution. At all events, this is the point now insisted upon: the inflammation, proceeding by Steno's duct, necessarily and primarily invades the proper elements of the gland, which transmit it to the cellular tissue in which they are embedded.

These considerations lead to the prophylactic and curative treatment of parotiditis consecutive to acute disease. The buccal membrane must be kept carefully cleansed, and all desiccation prevented by means of emollient or slightly astringent applications. As soon as the first symptoms appear, whether these be pain or tumefaction, pressure must be exerted on the gland and its duct, so as to expel from the latter any irritating secretion which it may contain. At the same time leeches may be applied to the swelling, upon which should also be practised every three hours a mercurial friction, followed by a linseed-meal poultice. By these means resolution may often be obtained.

Transfusion.

At a recent meeting of the New York Academy of Medicine, Dr. Fordyce Barker delivered an address on this subject, on the occasion of his bringing under its notice Dr. Aveling's new instrument for effecting the operation. He gave a succinct account of the various cases of transfusion that had been recorded, and stated that as far as his knowledge went it had been performed six times in New York, but never with success. He observed that the number of successful cases on record is such as to encourage a more general adoption of the operation, and he believes that Dr. Aveling's instrument for direct transfusion offers a better prospect for fulfilling its indications than any other that has been devised. He wished to call attention especially to the cases of excessive exhaustion from the sickness of pregnancy. The propriety of inducing premature labour in such cases is now generally admitted, but patients sometimes come under observation in whom so great a degree of exhaustion exists that this cannot be resorted to without danger of death occurring during its very performance. It is in such cases that transfusion may be suggested as likely at least to restore a sufficiency of strength to the patient to enable her to withstand the shock consequent on the induction of labour. Dr. Peaslee remarked that he had been struck with the small quantity of blood that has been said in many of the reported cases to have been sufficient to secure recovery, this having occurred in some cases in which not more than from two to four ounces had been injected. He could not regard some of these cases as very reliable; but there are others which prove that transfusion has beyond all contradiction saved life. Dr. Austin Flint, jun., after narrating a case in which he had performed the operation, in which life seemed to have been prolonged for from twelve to sixteen hours by the injection of about seven ounces of blood, made some observations upon the operation from a physiological point of view. The blood should be taken from a healthy person and introduced without cooling in contact with foreign substances, and without defibrination. A few ounces of blood transferred from one person to another will produce very decided results. Normally, the patient should have from fourteen to eighteen pounds of blood circulating in the system to properly sustain the functions of the body; and yet the introduction of from four to eight ounces has been known to restore to life a person dying from exhaustion. All portions of the blood have been injected without the red globules, but all such cases have been unattended with good results. It is the red globules that seem to perform the necessary work. They are oxygen carriers—that is their function, or, at least, we are not certainly acquainted with other functions if they exist. Respiration consists in an appropriation of oxygen by the tissues; and the introduction of air into the lungs, and the taking it up by the red globules, are secondary to real respiration. In order that appropriation of oxygen by the tissues may take place, it must be carried to them by the red globules, and these anatomical bodies are the only agents which can carry it. When a person is partially asphyxiated, it is noticeable that the lividity of the countenance disappears, and the natural colour is restored by the admission of air into the lungs. The blood takes up the oxygen of this air, and conveys it to the tissues, and when it has reached that point and yielded up the oxygen, the lividity rapidly disappears. There is doubtless diminished power in the blood for carrying oxygen to the tissues in the cases in which transfusion is ordinarily resorted to, and that necessitates a few additional ounces of blood to give an impulse to the circulation, bridging it over, as it were, for a time by furnishing it with a fresh supply of oxygen. The operation should not be employed exclusively in those desperate cases where favourable results are hardly to be looked for, but should be resorted to before patients have fallen into so hopeless a condition. Dr. Lusk called attention to the possible usefulness of transfusion in cases of blood-poisoning, and referred to a case of puerperal convulsions occurring at Heidelberg, in which recovery occurred after the abstraction of four ounces of blood from the arm and the substitution of six ounces of healthy blood. In reply to a suggestion of Dr. Peaslee, that experiments should be performed in order to ascertain whether blood of one species of animal can be transfused with safety into the veins of one of another species, Dr. Flint, jun., observed that the subject had been fully investigated by the physiologists, with the result of showing that the introduction of the blood of inferior animals into the human circulation is attended with very great risk. Very small quantities have been so introduced, but the introduction of any considerable amount would be an exceedingly dangerous experiment. The introduction of the blood of an animal having oval corpuscles into the circulation of one whose blood contains round corpuscles has been tried; but in all cases the animals so operated upon have died.

In the same number of the *Medical Record* (April 1) in which the above discussion is reported, there is also a paper by Dr. Howe, giving a description of a new method of transfusion which he has devised and successfully employed in a case of exhaustion consequent on epistaxis. The instrument is a modification of Dieulafoy's aspirator; and the advantages of the procedure are said by its inventor to consist in the rapidity of its employment, the non-exposure of the blood to the air, the preservation of all its nutritive elements, the prevention of coagulation, and the minute size of the aperture in the vein.

REVIEWS.

Practical Medicine, with a Sketch of Physiology and Therapeutics: being the Fourth Edition of "Meade's Manual for Students." By Alexander Silver, M.A., M.D., Physician to Charing-cross Hospital, and Lecturer on Physiology in the Charing-cross Hospital School of Medicine. London: Henry Renshaw. 1874. Pp. 596.

Were this short, stout, and sturdy-looking volume really only a "fourth edition of 'Meade's Manual,'" we should simply announce its appearance; but it is, in fact, a new book. Dr. Silver adopted "the old grouping of physiology, pathology (used in the wide sense), and therapeutics," but the second division took possession of him and crowded out the other two almost entirely, and he tells us that of the old matter of the former work "all that remains are some passages in the part on physiology." He offers the work, therefore, "as a book on the Practice of Medicine," the other parts being "only more sketches, though," it is hoped, "useful ones." We unfortunately have not any "personal experience" of the original "Meade's Manual," so that we are unable to compare the new work with it, though we might no doubt evolve from our inner consciousness a typical student's help of bygone days, and then prove that Dr. Silver's Practice of Medicine is as superior to it as the medical student of our day is to the typical medical student of thirty years ago. But, foregoing the pleasures of comparison, we will content ourselves with a cursory examination of the work before us.

And first it is to be remembered that in essaying to write a book on the practice of medicine, "primarily intended for students," Dr. Silver undertook a really very difficult task. His desire, he tells us, was to make the work "as compact and clear as possible, and to eschew that which is still doubtful for that which is not," and "to tell the student what to do, as clearly and simply as possible, without confusing his mind by conflicts of opinion." His object has been, we take it, to

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supply the student with short, condensed, dogmatic notes on each disease treated of, teaching him nothing that may have to be unlearnt afterwards, but giving him a sound foundation, to be built on by work in the lecture-theatre, in the study, and at the bedside; and, in doing this, he has had to remember on the one hand not to waste space and time on elementary details which he had a right to expect the student to have already learned, and on the other to avoid giving so much that there might seem no necessity for further and wider study. His intention was, we suppose, to write neither a treatise on medicine for the advanced student or the junior practitioner, nor a "cram" for the idle student; but a help and guide for the junior pupil in medicine; and in this he has succeeded to an extent that he may fairly be congratulated on, though very possibly a critic of the work, unless he has large experience as a teacher, may pick out passages in which he thinks conciseness has been carried almost too far, or which may seem to be everyday truisms—things that "everybody knows."

We can make no pretence to having, even in the most cursory manner, looked through the whole work, but some parts we have read carefully, and we have found much to praise. The section on "Diseases of the Heart and its Appendages" is excellently done, and especially that part of it—and it is of course by far the largest part—devoted to "Diseases of the Valves and Orifices of the Heart"; this is exactly what Dr. Silver desired to make his work—"compact and clear," and good throughout; and the directions for "treatment" are admirable. The student is told distinctly and positively what to do, and logical reasons are given him for doing it. It may perhaps, however, be questioned whether it is quite judicious to recommend in such unqualified terms the use of digitalis in such doses as "half an ounce of the infusion every four hours."

Diseases of the lungs are also well handled, and we particularly mark for commendation the section on phthisis: it is full, as befits so important a subject, and good in all its parts. We observe, however, that, when speaking of the time of life in which phthisis is most likely to occur, Dr. Silver gives simply what is no doubt the general belief—viz., that "from puberty to the age of thirty seems the period of life most prone to the development of phthisis"; but it is more than doubtful whether this is correct. The largest number of deaths from phthisis occur between puberty and thirty years of age no doubt, but the proportionate deaths do not alter greatly. This has been well put by Dr. Sieveking in his work on "Life Assurance," where he says—"The proclivity to phthisis commences at puberty, and, though the succeeding ten years are generally regarded as the most fertile period of life for the development of this disease, this view is based upon a fallacy, as the disease is statistically shown to occur with almost uniform frequency up to the decline of life. After fifty, the proportion of deaths from phthisis to those living is nearly the same as at an earlier period."

When dealing with the treatment of phthisis, Dr. Silver has done well and wisely in warning the student against a thoughtless, and often mischievous, routine exhibition of cod-liver oil. It may seem a mere platitude to tell him that "it is not the giving of the cod-liver oil, it is its digestion and absorption which is desirable"; but who can deny that the oil is very often ordered as a mere matter of course, and wrongly both as to quantity given and as to the times of taking it, and that therefore it not only fails to do good, but positively does harm? Dr. Silver rightly teaches that it "should be begun in such quantity—never exceeding a teaspoonful—that it will be digested, and will not repeat. The great thing is to begin, and as it is employed, the power of taking it will increase. The times for giving, too, should be carefully attended to; thus it will often be well taken half an hour after a meal, when it would return if taken before. Often it is best taken at night."

We have not space to notice the work more fully. No doubt it could be shown that some parts of it are weaker than others, and it certainly contains some phrases which may seem rather awkward and crude, but for that very reason they may the more arrest the student's attention, and make him think of what he is reading; still we are satisfied that the student will find it a safe and very useful guide and helper.

THE Cambridge University Union, at a meeting held on Tuesday evening, adopted a motion in favour of introducing the system of cremation into England by 101 votes against 42.

REPORTS OF SOCIETIES.

THE PATHOLOGICAL SOCIETY.

TUESDAY, APRIL 21.

Sir W. JENNER, Bart., M.D., F.R.S., President, in the Chair.

ADJOURNED DISCUSSION ON CANCER.

DR. HEADLAM GREENHOW said that he should not have taken part in the debate had it been on the histology or on the pure pathology of cancer, but it had been chiefly on the clinical history of the disease, although anatomical points had been referred to more than once. He gathered that Mr. De Morgan's view was, that cancer is a local disease spreading chiefly by transference of cells from the primary seat to a distance. He would leave this with the remark that Mr. Simon referred the secondary growth rather to a spermatic influence. Dr. Moxon had tried to bring them back to what he considered the essential objects of the debate. *Primâ facie*, he (Dr. Greenhow) confessed there was great reason to suppose that cancer is a local disease. But there was another view represented by Sir James Paget. And even Mr. De Morgan, when his speech was analysed, was found using terms implying that there is something more than a local disease in cancer; he had cited the hereditariness of cancer in proof of this, and had said that the cancerous tendency may pass a generation, and reappear in the third. Clearly Mr. De Morgan admitted that there is a constitutional condition as well. Dr. Greenhow could not see much difference between this and Sir James Paget's view. Between their two views, representing two great schools of thought and very large experience, there was no great divergence; there was rather a mere difference of words. For his own part, Dr. Greenhow thought it was impossible to study cancer without seeing that there is something more than a local condition, that there is something more in the system beforehand—call it a predisposition or hereditary tendency. These words were, of course, indefinite, and varied in meaning with men and circumstances. Thus, he did not think this predisposition the same as that seen in deformities, or in non-malignant local disease such as hydrocele, or in gout. He would say that cancer much more resembled tubercle. Phthisis and cancer were both undoubtedly hereditary. Both sometimes descend to one side of a family only. Thus, in a family known to himself, all the five daughters died of phthisis, while the two sons remained healthy. Cancer does the same, especially descending on the female side. He could not therefore help thinking that cancer is a general disease. He instanced another family where three sisters and two brothers died of cancer, and in four out of the five in different organs. Again, cancer may remain dormant in a locality for a long time, as tubercle may do; sooner or later the disease lights up afresh. Dr. Greenhow's own view was that there is a strong hereditary predisposition to cancer in a great many cases; and it could not but be admitted that there is a constitutional condition as well as a local origin of cancer. Why cancer, thus inherited, should manifest itself locally was not obvious. Sometimes it was from an accident, in illustration of which Dr. Greenhow related the case of a gentleman who died of colloid cancer of the abdomen shortly after a blow on the part. Why was it, again, that cancer will at times attack an imperfectly developed organ, such as an unused mamma in middle life? Sir James Paget had referred cancer of the mamma, in its frequency, like cancer of the uterus, to premature old age. To him (Dr. Greenhow) the reason of this localisation of cancer was not obvious. In conclusion, Dr. Greenhow expressed his belief that the practical result of the debate was that there was no such great divergence between the local and general schools as some had supposed. And so in respect of treatment, the practical inference he would draw from the debate was that cancer, if dealt with locally at all, ought to be removed as early as possible.

DR. CREIGHTON said that having received a commission more than a year ago to investigate the pathology of cancer, he had concluded after some time that secondary tumours of the liver, whether cancerous or sarcomatous or of other kind, would be likely to throw more light upon the subject than tumours occurring primarily. He had been successful in getting material—tumours secondary to very various growths—in the colon, in the rectum, in the femur, and in the subcutaneous tissue. In these cases he had found that the point of

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departure in the liver was the liver-cell itself, and this not in the way of proliferation and multiplication of nuclei, but in the way of endogenous cell-formation—that is, vacuolation of the protoplasm of the liver-cells, and the differentiation, so to speak, of the products that survived the vacuolation. In all the varieties the endogenous cell-formation was well exemplified. The conclusion which he had arrived at was that from liver-cells there might develope not only epithelial cells, but also connective-tissue cells, including spindle cells as well as myxomatous cells, and various kinds of epithelium. In all these cases the secondary tumour had had a remarkable resemblance to the primary, whether the characteristic were tubular-gland structure, spindle-celled sarcoma, melanotic growth, or some more special arrangement of stroma. So striking was the similarity that the relation between the primary and secondary growths was comparable to no other relation in nature than that of parent and offspring; and having regard to this and the process—viz., vacuolation—the influence of the primary growth on the appearance of the secondary might well be compared to spermatic influence. The changes in the liver-cells under these circumstances might well be compared to those occurring in the ovum after impregnation. So much for secondary tumours; as for primary tumours, Dr. Creighton doubted whether in their growth the same sort of influence was to be sought. The origin of these was to be found rather in the particular region where they occurred. The processes of evolution and involution undergone by such an organ as the mamma would appear accountable not for the occurrence of a tumour, but for the peculiar structure which it would possess. The uterus and the stomach resembled the mamma in being very frequent seats of cancer, and these organs were at the same time remarkably liable to catarrh. To such ordinary events, then, as involution and catarrh, Dr. Creighton would refer the occurrence of primary tumours. From these primary tumours secondary ones were developed, and this recurrence represented the constitutional element. It was superfluous to bring in a mysterious constitutional element, while there were so many vicissitudes of cell-life which might be the point of departure of cellular growths. This was especially true of the mamma, and of other organs producing a secretion, which might in part be cellular. But once formed, the growth was reproduced or became constitutional by an influence which might justly be called spermatic.

Mr. Rivington said that there were two issues involved in the question under discussion, namely—first, Is cancer of local or of constitutional origin? and second, What are the elements out of which it arises? The whole burden lay in the production of the primary tumour, for the secondary phenomena were thereafter easily intelligible. Before, however, replying to the first question, Mr. Rivington defined the terms which he meant to employ. By "local" origin of cancer he meant origin in a part or organ, out of the elements of the tissues of the part or some neighbouring part, with the blood of normal constitution, or certainly free from any morbid material. By "constitutional" origin of cancer he understood origin in a part not out of, but in connexion with, some pervading element, whether of tissue or of blood. To the question, Is cancer of local origin? he would reply that he was a localist and not a localist. He was not a localist in Dr. Moxon's sense, but he was a localist in the sense that cancer is a modification of the tissue-elements of the part in which it occurs, or of some neighbouring parts. In cancer there was nothing peculiar, either in the cells or in the matrix. The laws of nutrition were, as Sir James Paget had said in his "Lectures," not altered in cancer. There was a disorderly crowding of elements, with an abnormal growth of natural elements. What were the abnormal conditions which caused the cells so to behave? The localist could say only local irritation, and this was unsatisfactory. On the other hand, the constitutionalists had brought forward most powerful arguments that there is an underlying element in connexion with which cancer arises, whatever that element may be. It might be the specific morbid material in the blood or in the tissues, or it might be some morbid condition either of the bloodvessels, or of the all-pervading nervous system, or of the connective tissue—that is, the lymphatic system. Sir James Paget had selected the blood as the constitutional element in connexion with the origin of cancer, but Mr. Rivington would locate it rather in the tissues; for it is less qualities of blood than types of tissue that men inherit. A morbid material would soon be removed from the changing blood, if present in it; and the analogy of hereditary syphilis is against the blood hypothesis, for in it we see how a manifestation occurs in a very definite period after the infection of the blood—not late and indefinitely as in cancer. And again, cancer could not be due to a primary morbid material in the blood, for how did it originate in the non-hereditary cases? These were all, but not all the possible, arguments against Sir James Paget's blood-theory. As to the nervous system, there was not sufficient evidence to prove that the action of the nervous system alone could give rise to cancer. All that was left, Mr. Rivington contended, was the great lymphatic system, including all the connective tissues, and all the serous and synovial membranes, and all the interstices of organs. The office of this lymphatic system being to collect certain materials from the tissues which are still capable of development, it followed that if this office failed these materials would be left in the tissues, and a tumour result, composed of elements in disorderly crowding. The considerations which directed one's attention to the lymphatic system in searching for the source of cancer were—the constant appearance of cancer in the connective tissue of a part; the not infrequent origin of cancer in lymphatic glands; the postponed reappearance of cancer in lymphatic glands at times; the occurrence of cancer in actively changing parts, and in imperfect parts; the temporary freedom from, and ultimate recurrence of, cancerous growths; the subsidence of glandular enlargements after operation, and the apparent cessation of the cancerous constitution; the subsidence of tuberculous disease in cancerous patients; the transmutations in the transmission of cancer; the appearance of cancer late in life; the reappearance of cancer after removal in a distant part; the occasional skipping of a generation; and the occasional appearance of the cachexia before the primary tumour. Lastly, Mr. Rivington quoted at some length a case recorded in Sir James Paget's "Lectures," showing how repeated irritation of the lymphatics may ultimately end in a cancer. There were several kinds and degrees of failure of the lymphatic system, and the cancer might possibly prove to be the highest form of expression of lymphatic incapacity.

Dr. Broadbent said he had come to the meeting with what he had believed were clear ideas, but they had been confused by some of the previous speakers. Dr. Greenhow had used the terms "hereditary," "constitutional," and "general" as if they were synonymous. Mr. Rivington had been inconsistent; he had begun by acknowledging that, given a disease with the structure of cancer, all subsequent changes were explicable by that structure, and he had proceeded to set a few facts of simultaneous evolution in opposition thereto. To return to simple definitions, Dr. Broadbent said, it must not be forgotten that cancer is not a species, but a genus, and that a few remarkable cases would not settle its pathology. He approved of Dr. Payne's definition of the term "constitutional." In some cases the constitutional condition was everything; in some the local condition was everything. When Sir James Paget said that chimney-sweep's cancer has almost disappeared, the local causation seemed pretty clear. A constitutional disease might be either acquired or hereditary, but, if it were constitutional in the sense of having its origin in some internal tendency, that was not necessarily a general tendency. He would not repeat what Dr. Moxon had said of the true distinction between general and local. Cancer did not find its origin, but its result, in a cachexia or carcinosis. In reference to the transmutation of the form of the disease in transmission he would instance the neuroses—epilepsy, migraine, neuralgia, and insanity, and a variety of other disorders appearing in the different members of a family. Dr. Broadbent believed that Sir James Paget had made one lapse when he referred the frequency of cancer of the uterus and mamma to premature senility, for this was granting that cancer was a tissue disease, the tissue and not the blood being old. As for the lymphatic tissue, he did not see why it, more than any other tissue, should go into spontaneous disorder.

Mr. Rivington explained, in reference to the last remarks of Dr. Broadbent, that he did not mean to say lymphatic tissue, but the lymphatic system.

The President, in congratulating the Society on the course of the debate and on the character of the speeches, made special reference to the addresses of Mr. De Morgan, Sir James Paget, and Mr. Simon, which he described as "addresses such as any society in Europe might have been proud to listen to." He had himself been unwilling to speak on the subject of cancer, and he had sat quietly listening, often agreeing, but often thinking that those who spoke were wrong. To some of the statements he was not prepared to assent. Thus, Dr. Moxon had said that he had found the crypts of Lieberkühn in the

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liver, but this he (Sir William) could not quite understand—that there should be the cells, the basement membrane, and a complicated structure with its vessels. Again, Mr. Hutchinson had stated, as an argument in favour of the local origin of cancer, that if surgeons did not believe it they would cause the death of a great many patients. This was a bad argument. The question of operation was beyond the argument, and was to be settled by facts. Then Sir William Gull had said that the blood is an indifferent substance. Against this doctrine the President would protest with all his might; and he appealed to the experience of those who had ever examined the blood in a truly malignant disease, such as small-pox. One could see the solution of hæmatosin oozing from the eyes, nose, mouth, and every outlet of the body; and was such blood to be called unchanged and its condition indifferent? Such blood was microscopically altered both as regards the solids and fluids. The cases of spontaneously coagulable blood served as another illustration: there was no change of tissue in the vein at first, and the blood could not be regarded as indifferent. The character of the coagulum also in malignant diseases—small-pox, erysipelas, etc.—pointed in the same direction. Sir William Gull had further said that if a man were all blood he could not have typhoid fever. Sir William Jenner was not so sure of this; and he would say, that if a man had no blood he certainly could not have typhoid fever. It had also been argued by Sir William Gull that cancer could not be a disease of the blood because there was no blood in the ovum. Primarily this was true. But it might in the same way be said that the father did not give adipose tumour to his child, although the fact was that he had given it adipose tumour before it had adipose tissue. In regard to the question of the local or constitutional origin, Sir William believed that a clear understanding of the terms was all important. He would express what he meant by the word "constitutional." The father gave to the ovum a power of development, a power of differentiation, and in these processes every structure partook more or less of the qualities of the structures of the parent. An adipose tumour might thus be inherited, just as are the colour of the eyes, the shape of the nose, and the height of the body. Each tissue possessed the power of growing in the same direction as in the parent. More than these was conveyed by the father to the child—the date of its death, and the date of death of its several tissues; the date, and even the mode, of degeneration. Such was the case in premature baldness and grey hairs. The power of growing and developing in special ways was given to all tissues, was common to all, and to it we emphatically applied the term "constitution" of the person. When he spoke, therefore, of cancer being a "constitutional" disease, he meant that it was a development, possibly in every structure of the body. That might be conveyed at impregnation without the knowledge of the parent that he had the disease. In illustration of the truth of this last remark, Sir William related a case where a father died of cancer of the tongue twenty-two years after his child died of cancer disseminated in various parts of the body. As for Dr. Moxon's remark about what Mr. Birkett had told him about the hereditary nature of cancer, it could not weigh for a moment against Sir James Paget's experience. Constitutional conditions were also acquired; the surgeon hesitates to operate on patients in bad general health; and children are said to be in a similar condition when, as the mothers put it, "they never prick or scratch themselves but the place festers." He believed that in the same way there was a general or constitutional appearance of cancer; that there was a general condition affecting every part of the body; and that when the equilibrium of nutrition was disturbed the body burst locally into cancer. The cause of the local development was another question. Local injury would produce it. No one would dispute Dr. Moxon's three propositions, but it did not follow that they should not be therefore constitutionalists. Just as abscess might follow an injury to the mamma, and the neighbouring glands swell, so might cancer be produced and spread; but it would not be produced unless there were a primary condition in the patient—a disposition under irritation to form cancer. As for the spread of cancer into neighbouring parts by wandering cells, Sir William said that such cells were really like the "Wandering Jew," to which Mr. Erichsen had compared them, in one way—that they were believed in, but had never been seen. Mr. Simon did not attribute the tumours which recurred at the seat of operation to such "Wandering Jews"; he had said that he believed part had been left behind. So it was with cancer: the whole part in which the cancerous tendency existed not having been removed, irritation was sufficient to renew the growth. Sir William then narrated a case where, the intestine having been punctured for tympanites in cancerous peritonitis, a cancerous growth developed around the punctures. According to his view, secondary growths might be developed from a something, not necessarily a germ, which irritated the part in consequence of the constitution having this peculiarity.

Mr. De Morgan commenced his reply by expressing his gratification at the result of his paper. The ground gone over had been vast, and the time left to him for his reply was far too short for it to be satisfactory. His feeling throughout had been, that all that could be said with regard to the constitutional nature of cancer applied equally to the constitutional nature of any growth in the body—as a wart or a fatty tumour. He agreed with Sir James Paget as to the degree of hereditariness of cancer. That very morning he had seen an illustrative case. A lady with cancer, which she inherited on the maternal side, had a number of atheromatous tumours of the head, which she inherited on the paternal side, and a host of moles on the arms and chest. Why should any special condition be assumed as connected with cancer, and not with regard to these other growths? Sir William Jenner's remarks came to this: that there is a constitutional tendency—that is, a certain condition of tissue—under which certain changes will readily take place; but these would take place not everywhere, —only in certain parts would the original cancer spring up,—very rarely indeed in the lymphatic system. Mr. Simon probably agreed with him that cancer is at first local, but believed in a spermatic influence. But Dr. Moxon and Dr. Creighton had both shown that the secondary growth has a tendency to the form of the primary; and he (Mr. De Morgan) argued that for this reason the influence was not spermatic in kind, otherwise the result of the impregnation would possess the characters of both the elements, and not of one only, and the cancer would take on the conditions of the part in which it grows, whether lung, liver, or other organ. For this reason he would prefer to believe that the secondary tumour is an outgrowth of the arrested particle from the primary, and might be called parasitic. As to cancerous growth being dependent on the general system, he did not admit that the tendency exists all over the body, and that if cancer did not appear in one place it must appear somewhere else. He believed that there are tissues of the body that will take on cancerous action—that they have it in them,—that they are born with a tendency to warts, or fatty tumours, or anything else. In regard to the cases adduced by Mr. Marsh, of cancer following injury, he would say that any part of the tissue from which the cancer grew in such subject would be liable to become the seat of cancer under injury. The keloid which formed in Mr. Simon's case, cited by Sir William Jenner, grew again and again; yet it was but a mere peculiarity of local development. In illustration of this point, Mr. De Morgan related a very remarkable case of a man who died of internal strangulation of the intestine after sustaining a compound fracture of the radius, and passing through an attack of putrescent cellulitis in the most satisfactory way. Post mortem it was discovered that the abdomen was also the seat of colloid cancer. Yet his general health had been unusually good; and there was not the very slightest disposition in the body at large to form cancer. Mr. De Morgan continued that his argument from the frequency of cancer in females had not been satisfactorily answered by Sir James Paget, who referred cancer of the breast to the frequent changes of the organ. Now, if cancer attacked the breast because it is a retrogressive organ, why was the second breast so seldom attacked? Secondary cancer was found anywhere but in the primary seat. As regards the analogy between cancer and syphilis, taking melanotic sarcoma as an example of malignant disease, the first melanotic tumour occurred while as yet no pigment-matter could be found in the blood. If this primary growth were disturbed, the matter would be dispersed throughout the system, and melanotic sarcoma would be developed everywhere. But in syphilis the diseased blood manifests itself not by phenomena like the primary disease, but in pustules, ulcerations, and a whole host of things perfectly different. Again, the offspring of a cancerous parent was not affected like the offspring of a syphilitic one. He had himself extracted a perfectly healthy child from a cancerous womb by the Cæsarian section. In conclusion, Mr. De Morgan said that the whole course of the

argument had tended rather to confirm him in the view that originally cancer is a local affair, in the same sense that any peculiarity in the body is local. The primary determining conditions of growth were as obscure as those that governed normal development. Yet there was a something in the whole range of the tissues; and if a mother were cancerous, cancer would appear in the offspring, affecting any part of the same tissue in any situation. Such appearance was, however, not a necessity, and if a person inheriting a tendency to cancer of the breast had the breast removed, Mr. De Morgan believed there was no special reason why cancer should develope at all. On the whole, Mr. De Morgan believed that the result of this discussion on cancer would be that some important truths would be arrived at with future bearing upon actual practice. If a method of curing cancer were not discovered, they would have to fall back upon the only alternative left, and remove the disease as soon as possible after discovering its presence.

SOCIETY OF MEDICAL OFFICERS OF HEALTH.

SATURDAY, APRIL 18.

Dr. LETHEBY, President, in the Chair.

THE minutes of the last meeting having been read and approved of, Dr. Dudfield proposed, with reference to the paper he had read at the last meeting of the Society, that it be referred to the Council to consider what steps should be taken to petition Parliament in favour of the abolition of private slaughter-houses, and the substitution of public slaughter-houses in lieu thereof.

In the discussion which followed, reference was made to the action proposed to be taken by the Metropolitan Board of Works on this subject. It appears that the Board had previously voted in favour of referring the subject to a Parliamentary Committee, with a view to assist the Government should they think it desirable to carry out the views of the Society. The Board of Works afterwards decided to report in favour of existing slaughter-houses.

The proposal of Dr. Dudfield was then put, and carried.

Dr. VINEN, the Secretary, then read a communication from the Registrar-General, inviting the opinion of the Society with reference to a complaint he had received from 139 metropolitan registrars of births and deaths, to the effect that for certain returns which they have to make to the Registrar-General they receive no remuneration.

Dr. FARRE considered that the local authorities ought to supply this information, and he proposed that the forty-nine metropolitan officers of health should suggest to the local authority that each registrar should be paid four guineas per annum and a penny for each case above fifty registered during any quarter. Dr. Farre stated that in other parts of England the information was more systematically obtained than in London.

Mr. LORD next proposed that the subject of cremation should be fairly discussed by the Society from a sanitary point of view.

It was resolved to request Sir Henry Thompson to read a paper on the subject.

Dr. J. NORTHCOTE VINEN, one of the Honorary Secretaries, then read an abstract of answers received to a series of questions addressed to all provincial Medical Officers of Health in reference to Returns of Sickness and Death, and to any difficulties experienced in the discharge of their duties. The following list of questions was drawn up and sent to 800 medical officers of health in England and Wales; answers were received from 309. The questions, with an abstract of the replies, will be taken *seriatim*:—

Question 1.—Do you receive periodical or other returns of deaths occurring in your district, and, if so, from what source, and at what intervals of time after their occurrence?—Ninety-two replied to this question that they received no returns of any description, and this was explained to be in consequence of the registrar refusing to give them without payment, and the local authority declining to incur the expense; and, in a few cases, from the returns not being considered of importance; 218 replied that they received returns at various stated times. In eighteen cases the occurrence of infectious disease was reported to the medical officers of health either weekly or immediately on its appearance.

Question 2.—Do you obtain returns of sickness in your district, and, if so, from what source? and are such returns made early enough to be of use in taking preventive measures should the disease be of an infectious character?—Of the 308 answers received to this question, 194 stated that no returns were supplied; 87 received returns from relieving officers, district registrars, clerks to guardians, or from medical men in public and private practice; 31 obtained information with regard to the prevailing sickness of their districts by an examination of the books of the medical officers of public dispensaries and hospitals, and medical officers in poor-law practice. The information is obtained at intervals of one or two weeks, or quarterly, but for the most part at very irregular times, and usually too late to be of any practical use.

Question 3.—Are the returns of sickness and of death obtained by payment, and, if so, by whom is the expense incurred, and what is the rate of payment?—Of the 193 who receive returns of sickness and death, or of sickness or death, 44 are stated to be received without payment, 130 are paid for by the local authority, and 19 by the medical officers of health themselves. The sums paid for returns, as well as the mode of payment, vary considerably. The greatest number of any one payment is that of twopence per case, of which there are fifty-five. The returns refer almost entirely to deaths, and the persons paid are almost exclusively the district registrars.

Question 4.—What are the chief difficulties which you have hitherto met with in the discharge of your duties as medical officer of health? and how, in your opinion, may they be remedied?—Many complain of the want of more summary power on the part of the medical officer of health over wells and water-supply generally, the abatement of overcrowding, and the means of enforcing isolation in cases of infectious disease. Other difficulties were also alluded to, such as the small number of inspectors, their incompetency and want of control over them, small and insufficient salaries, and the undefined nature of the duties to be performed.

Question 5.—Is the efficient discharge of the duties of your office impeded by an absence of returns of sickness and death?—To this question 280 answers were received. In 100 it was stated that duties were impeded for want of returns of both sickness and death, 58 by the absence of sickness returns only, 21 were indefinite or doubtful, and 101 replies were to the effect that the efficient discharge of duties was not affected by the absence of such returns.

Although replies were received from less than half of those to whom they were addressed, yet from these, as well as from the remarks appended to some of them, it may be gathered that the absence of periodical returns of sickness and death is considered to be a serious obstacle to the proper performance of sanitary duties. Notwithstanding 101 gentlemen found no difficulties from this cause, 103 others stated that the want of early returns of sickness formed the chief difficulty they had to contend with. The Local Government Board has recently issued a minute on this subject, which it is hoped will induce or compel local authorities to obtain, by means of payment to the registrar, a weekly return of deaths, and immediate information of the registration of any death from zymotic disease. Returns of sickness require a more complicated machinery, and are not so readily attainable. Another point much dwelt on is the apathy and indifference of the local authority. Sanitary science is evidently unpopular in the bucolic mind. The contrast between the urban and rural sanitary authorities in combined districts is stated to be very marked, the urban authorities acknowledging more readily the necessity for sanitary operations, and entering more zealously into them. The rural authorities are often the owners of the property on which nuisances exist, and are therefore interested in obstructing alterations or improvements. There may, however, be some truth in what one gentleman writes from Yorkshire. He says—"I am rather disposed to think that some of our friends expect too much from local authorities, and forget that they have for the most part to be educated to the work (one of the duties of the officer of health). We ought to be the advisers of the authority, and not dictators."

A vote of thanks was proposed to Dr. Vinen for the labour and care with which he had summarised the replies of the officers of health to the questions propounded by the Society. In the discussion which followed, Dr. Buchanan stated his opinion that the President of the Local Government Board had already decided that with regard to returns of deaths the medical officers of health should see the registrar's books and the poor-law books, and that proper payment would be made;

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but no definite arrangement had been made with regard to returns of sickness. The proposed legislation with reference to the compulsory registration of births was to be referred to a committee with power to petition in favour of it.

Dr. Liddle then rose for the purpose of criticising the Metropolitan Buildings and Management Bill, especially those clauses relating to overcrowding. In his opinion the Bill ought to be rejected. The object of the Bill was four-fold—1st. To consolidate the seven Building Acts now in force in the metropolis. 2nd. To confer powers for laying out of streets. 3rd. To make provision against fire; and 4th. To provide better protection for the Board of Works in respect of sewers. Dr. Liddle was of opinion that the construction of the Bill was so imperfect—such a mixture of attempts at sanitary improvement with complicated architectural details—that it was impossible to remedy these defects in committee. He considered that the Bill should be strongly opposed by the Society. Dr. Liddle referred to the sixth schedule, on light and ventilation: Clause 1 gives power for the erection of a cluster of houses with a yard common to all, and gives power to the Board to make other unknown allowances with regard to light and ventilation. If a certain open space was necessary for an old building, it ought to be required for a new, and the builder should be compelled to conform to existing sanitary improvements. All builders should submit their plans to the local authority, with power of appeal. Schedule 5, Clause 2: "The footings of every wall shall rest on concrete, or a solid substructure as a foundation." Dr. Liddle said this might mean any rubbish; it should be limited to "on concrete." Clause 38: "Every room constructed in the roof shall be at least seven feet in height." Dr. Liddle is of opinion that every inhabited room should be eight feet high, and provided with a fireplace, of which no mention is made in this clause. A clause is wanting in the Schedule on Sewers and Drains, to prevent the flooding of basements from the overflow of the Thames at high tides. There is no reference in the Bill to house drainage, arrangement of water-closets, size of windows, ventilation of drains; no prohibition of houses constructed back to back—*i.e.*, without air-space between. Dr. Liddle had recently visited a house in which the basement was so constructed that the only ventilation was by the staircase into the living rooms. This was allowed by the Building Acts. Dr. Liddle proposed that no house be built until the street is formed, and the surface drainage constructed; that all old buildings, as stables, should not be converted into dwelling-houses unless proper drainage is made; that all public privies be abolished, and an ashpit and water-closet be built in every house. Dr. Liddle concluded his remarks by proposing that the Society petition against the Bill on account of the defective sanitary arrangements.

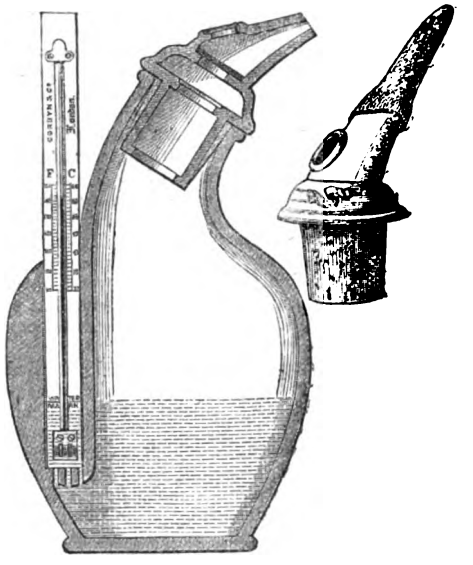
Dr. Gibbon was of opinion that the Bill was capable of improvement, and not so bad as Dr. Liddle had made out. That part abolishing the office of district surveyor was very desirable, because too often the surveyor looks more to his fees than to the proper construction of houses.

The Bill was referred to the General Purposes Committee.

NEW INVENTIONS.

IMPROVED INHALER.

The apparatus here figured has been introduced by Messrs. Corbyn and Co., at the suggestion of Mr. Lennox Browne, as possessing certain important advantages over all other inhalers, and is supplied by them at a very moderate price. Starting from Maw's double-valve inhaler, the lateral tube has been carried down deeper into the body of the inhaler, so that the admitted air is made to ascend through a longer column of the water, and is consequently fully impregnated with the vapour of the medicament before reaching the mouth. This lateral tube is also enlarged so as to admit a thermometer, graduated according to the Fahrenheit and (approximatively) Centigrade scales, which may remain *in situ* during inhalation. The thermometer also carries a water-mark which facilitates the adjustment of water to the proper quantity. The sponge, being considered objectionable, is removed from the mouth-piece of the inhaler. Finally, for nasal inhalation (which is a most valuable remedy in cases of ozæna, Eustachian congestion, and other affections of the naso-pharynx), a very simple and easily adapted indiarubber nasal-piece has been added. The whole apparatus is fitted into a strong box, lined with thick green baize, and it is recommended that in cases where it is desirable to maintain a high temperature the inhaler should remain in the box while being used. If this is done, the thermometer descends only 10° Fahr. in as many minutes,



whilst double that fall will take place in the same period if the inhalation is taken from the unprotected instrument. All necessity for the expense and trouble of a spirit-lamp or other similar means of keeping up the temperature is thus avoided. The price of the inhaler complete in box is 10s. 6d.

OBITUARY.

FREDERIC BIRD, M.D., F.R.C.P.

Dr. Frederic Bird was born at Colchester on January 23, 1818. At nine years of age he was, with his elder brother Golding, sent to an ill-selected school in London. There, where his brother, although but twelve years old, gave rude lectures on botany and chemistry, Frederic Bird acted as his assistant; and in a short memoir of his brother, written by himself, he describes the ill-treatment they both received at the hands of the ignorant schoolmaster for these slight attempts to improve the minds of their fellow-pupils. Years afterwards they were both enabled, by acts of kindness, to heap coals of fire on this tyrant of their early days. He entered Guy's Hospital a few years later than his brother, and after passing through the various classes held resident offices under Addison and Ashwell, the former of whom to the last he was wont to describe as the greatest physician of his time. In 1840 we first hear of him at the Westminster Hospital, as he held the post of clinical assistant for the period of twelve months before he finally settled down into private practice, which he commenced in Craven-street, Strand, then the professional residence of several medical men destined afterwards to eminence. Soon after this we find him an ovariotomist—word of ill-omen in those days, how changed now!—his first operation being performed on June 26, 1843. No small courage in the young man of twenty-five to perform a capital operation which had been discountenanced by the wise heads of his elder compeers. All honour to those who stood by him and supported him, especially Sir Charles Locock and the late Dr. Rigby. Soon after this we find him again at Westminster, lecturing on forensic medicine in conjunction with his friend Mr. Hodges, afterwards Chief Justice at the Cape; also holding the office of Physician to the Maternity Charity. But it was not until 1861 that he was appointed Obstetric Physician to the Westminster Hospital. Since then his lectures have been listened to by annual classes of students, and those who had the privilege of hearing him will long remember his eloquent, terse, yet happy mode of expression—here illustrating a point from his large and varied experience, there discussing the opinions of others,—always with the one purpose of imparting the essential knowledge of the subject, and arriving at the truth.

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In the wards he was equally happy: his rapidity of diagnosis, his exquisitely delicate manipulations, and the sensibility of his fingers' ends often gave his opinion the appearance of being almost magical, yet very seldom did he form an incorrect judgment. His writings were few in number, the pressure of actual work among patients occupying the greater part of his time. He commenced, however, in the *Medical Gazette*, a series of articles on the diagnosis and treatment of ovarian disease; he also occasionally contributed to the medical journals; and for some time he edited the *Provincial* (now *British*) *Medical Journal*. Few but those who knew him intimately were aware of the large amount of work that he had done, and the number of those of all classes who mourn his loss would astonish many who knew but little of him. In the words of an old friend, himself an eminent physician, whose letter is now before me—"Those who knew Frederic Bird thoroughly appreciated his tact, judgment, and professional skill. He was idolised by his patients, but there were not wanting those amongst his brethren, who, either from envy of his success or ignorance of his good qualities, kept him from that position in his college to which his success and scientific acquirements justly entitled him to be admitted."

He had suffered much from the effects of overwork the last few months, and twice had been compelled for a few days to rest in the house. His fatal illness commenced on April 8 with flying pains, which he thought were the precursors of rheumatic fever, two attacks of which he had gone through nine and seventeen years before. Soon, however, the symptoms pointed more to suppressed gout, never developing into more than a subacute form, evidenced by great prostration, though with but slight local affection. After remaining in this condition some time, grave symptoms of lung mischief, culminating in broncho-pneumonia, came on most severely on the Saturday before his death. From these symptoms, however, he rallied wonderfully on the Monday morning; but on Tuesday, the 28th, symptoms of heart failure were observed, and he passed away in a few hours at 6 p.m. His old friend, Mr. Johnson, of York-road, and Dr. Potter, his colleague, attended him throughout, being assisted at an early period by the valued advice of Dr. Wilks. Dr. Reynolds, who had attended him in his previous illness, also joined the consultations of the last few days.

We cannot close this short memoir more aptly than in the words which he himself wrote in 1855, speaking of the brother he so dearly loved—"In his professional relations, in his acquirements, in his whole life, our departed brother will be remembered as a profound physician, an accomplished scholar, and a Christian gentleman."

The late Dr. Frederic Bird belonged to a class of physicians who succeeded in obtaining a considerable practice from the possession of a large amount of common sense, good natural abilities, and moderate acquirements. In his earlier career, as a disciple of Dr. Hamilton Roe, he devoted himself for a time to treating diseases of the chest. With considerable tact and power of manipulation he succeeded in relieving, and occasionally curing, collections of pus in the thorax by operative proceedings. He soon, however, took up the speciality of diseases of women. He was one of the pioneers of the treatment of ovarian dropsy by excision of the diseased ovary. I was present at the first operation he performed, in a court leading out of Drury-lane. Nothing could be more artistic than his skill as a surgeon. The ovary was removed in a short space of time; but I cannot neglect to state that the auxiliary rules he laid down were the first of the kind, and have since contributed largely to the success of the operation. He contended that if the operation were to succeed, the patient should be placed in a temperature higher than the natural atmosphere, and that she should be kept in that temperature for some considerable time afterwards. I believe he was very successful as an ovariotomist, and that if he had devoted himself to the performance of this operation he would have earned a distinguished reputation. But he was averse to the anxieties which are naturally associated with such operations; accordingly he ceased from their performance, and devoted himself to the treatment of uterine diseases in general. In this he was successful, and at the time of his premature decease he was largely engaged in their treatment. He contributed little to the literature of the subject, and was rarely or never seen in the medical societies. In person he was rather above the middle height, with an expressive and intelligent countenance. If I were inclined to be critical I should say he was rather too demonstrative. He dressed as a physician of the olden time, in full black and a white choker, and he was too fussy; but apart from these I can see no reason for not placing him in a foremost position amongst us.

J. F. C.

SAMUEL DAY FEREDAY, F.R.C.S.,

Of Long Leys, Water Orton, near Birmingham, formerly of Dudley, died on April 14, in the sixty-first year of his age. Mr. Fereday was born at the Quarries, Gornal, on August 22, 1813. He entered St. Thomas's Hospital and Webb-street Schools of Medicine, where he became a distinguished student. He subsequently settled at Dudley, where he practised as a surgeon for more than thirty years. He was highly esteemed and beloved by his patients and an extensive circle of friends. He was Consulting Surgeon to the Dudley Dispensary, of which institution he was one of the founders, and one of the originators of the Guest Hospital. He took a great interest in all the other charities of the town. Mr. Fereday was the author of several papers; amongst other contributions "On two cases of Paracentesis Thoracis in Children," and "On Lithotomy in Twin Male Children—Successful." Mr. Fereday was Justice of the Peace for the counties of Worcester and Stafford, and for the borough of Dudley. By his death the profession has lost an able and honourable member, and his widowed wife and circle a kind and affectionate friend.

SURGEON-MAJOR KELLY,

Who had been engaged in the late campaign on the West Coast of Africa, died at sea on his passage home. He joined the service July 17, 1855, and proceeded to the West Indies. He was gazetted to the 1st West India Regiment, with which he remained until February 21, 1860, when he obtained transfer to the staff. He was stationed in Ireland from 1860 to 1862, when he went to India. On December 30, 1864, he was posted to the Royal Artillery, and did duty with the 20th and 6th Brigades until November 18, 1868. After his promotion in January, 1869, as Surgeon-Major, he embarked again for India for the Bombay Presidency, and on October 22 had medical charge of the 106th Light Infantry. He was in England on leave last year when the Ashantee Expedition was being organised, and he volunteered for special service. He was unremitting in his exertions during the campaign, and those engaged with him deeply feel his loss.

SCOTLAND.

Edinburgh, April 21.

The great importance of the Department of Public Health is daily becoming more and more recognised. Difficulty is proportionally experienced in finding medical men properly and specially qualified to hold sanitary appointments. It is gratifying to find that the Medical Faculty in the Edinburgh University have had under consideration how this department of study may be best encouraged, and the proper persons forthcoming when vacancies of this kind occur. At a meeting of the General Council of the University held on Tuesday last, the following regulations, which the University propose to proceed with at once, as an improvement in the internal arrangements of the University, were read:—

"The Medical Faculty, considering the great demand which now exists for medical officers of health, the value of these appointments, and the importance to the public of ascertaining that members of the medical profession have specially studied the subject of public health, recommended the establishment of those degrees to the Senatus. The following are the conditions:—

"*Degree of B.Sc. in Public Health.*—1. This degree shall be conferred only on graduates in medicine of a British University. 2. There will be two examinations for the degree of Bachelor of Science in Public Health. Candidates who have passed the first examination may go on to the second after an interval of five months. The first examination will be held in the month of October, the second in the month of April. 3. Candidates who are not graduates of, or who have not passed an *annus medicus* in this University, must have matriculated as students in the University for the year in which they come up for their first examination, and must have attended in the University at least two courses of instruction, scientific or professional, bearing on the subjects of the examination. 4. Candidates must produce evidence that, either during their medical studies or subsequently, they have attended a course of lectures in which instruction was given on public health, and that they have worked for three months in a chemical laboratory under a recognised teacher. 5. The examinations will be written, oral, and practical, and will be conducted by examiners appointed by the Senatus.

"*Degree of D.Sc. in Public Health.*—Bachelors of Science in Public Health may go on to the degree of Doctor, who produce evidence that they have been engaged in practical sanitation since they took the degree of B.Sc. in Public Health, and who shall present to the Medical Faculty, either in manuscript or in print, a thesis on some subject in the department of public health, certified by the candidate to have been composed by himself, and which shall be approved of by the Medical Faculty."

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As appointments of this kind vary in value from £500 to £1000 a year, and will in future fall to those possessing the new degrees, we may expect that sanitary science will be made a subject of special study by many of our ablest medical students. Thus, we may hope that these regulations will lead to most important results.

Edinburgh is determined not to be behind in doing honour to the memory of the great Scotchman whose life has occupied so much of the public attention and admiration of late years, and whose death is mourned by the whole civilised world. Two movements for this purpose have been on foot for some time. On the one hand it is proposed to erect a statue of Dr. Livingstone, executed by Mrs. D. O. Hill, in some important site in the city, and considerable sums have already been contributed for this purpose. On the other hand, it has been thought that, as Dr. Livingstone was a medical missionary, an appropriate tribute to his memory would be the erection of an institution having for its object the training of medical missionaries, and nurses who should assist them. The Directors of the Edinburgh Medical Missionary Society (of which Dr. Livingstone was for eighteen years a corresponding member) have, therefore, taken the matter up actively, and with the hearty concurrence and sympathy of the family of the late Dr. Livingstone, and of his friend Sir Bartle Frere. It is proposed to erect a Livingstone Memorial Medical Mission Training Institution, for which purpose at least £10,000 will be required. Mr. Livingstone writes—"We are sure that no monument could be raised which would be more in keeping with the aim which our father had during his arduous life, and which would be so valuable to mankind, and so lasting as the one which your proposal embodies." Sir Bartle Frere writes—"I think there could not be a more fitting memorial to your great fellow-countryman."

Within the last few weeks a medical student and a young physician, each possessing remarkable gifts outside the range of professional requirements, have died very unexpectedly. Mr. H. R. Driggs, who died on Tuesday last, was possessed of an unusually fine tenor voice, which was the great attraction at many amateur concerts. Many here will remember the superb effect with which he used it at the last concert given by the University Musical Association in February. Two days before that concert, Dr. John Macfarlane, then one of the resident physicians in the Royal Infirmary, died. He was well known as a distinguished athlete, and as one of the best football and cricket players in Scotland; and he was also a man greatly beloved by all his acquaintances and fellow-students. His last illness dated from an injury which he received while playing a football match. Severe rheumatic fever, with heart complications, afterwards came on, and ultimately proved fatal. As a proof of the regard in which he was held, his fellow-students, former teachers, and friends have raised a considerable sum of money for the purpose of erecting a memorial monument over his last resting-place.

MEDICAL NEWS.

ROYAL COLLEGE OF PHYSICIANS OF LONDON.—The following gentleman was admitted as Fellow on April 30 :—

Dickson, Sir Joseph Ritchie Lyon, M.D. Malta, Teheran, Persia.

On the same day the following gentlemen were admitted as Members :—

Jagielski, Apollonaris Victor, M.D. Berlin, 8, Weymouth-street, W.
Smith, Gilbart, M.D. Dublin, 68, Harley-street, W.

The following gentlemen were admitted as Licentiates on the same day, viz. :—

Bark, Ernest Onesimus, Leicester.
Beach, Fletcher, 49, Great Ormond-street, W.C.
Beadles, Hubert, New Southgate, N.
Bower, Reginald, Knowle, Warwickshire.
Brash, Edward Alexander, Buckingham.
Brayn, Richard, Market Drayton.
Coke, William Harriott, Tottenham.
Crowther, Arthur Bingham, Hobart Town.
Comins, Dennis Wood Deane, Witheridge.
Douglas, Claude, 3, Halfmoon-street, W.
Duran, Carlos, Costa Rica.
Fry, John Farrant, Guy's Hospital, S.E.
Houghton, Walter Benoni, 114, Tottenham-court-road, W.
Keer, George Edwardes, Wickham Market.
Lambert, William Osborne, M.D., Sunderland.
Lupton, Harry, Thame, Oxfordshire.
Nunes, Daniel, Costa Rica.
Owen, Charles William, 66, Kennington-road, S.E.
Paley, William Edmund, Guy's Hospital, S.E.
Redmond, William, Chatham Dockyard.
Simmonds, William Allason, Gravesend.
Stowers, James Herbert, St. Bartholomew's Hospital, E.C.
Thompson, Henry, Infirmary, Hull.
Wear, Arthur Taylor, Newcastle-on-Tyne.
Webber, William Littleton, West London Hospital, W.
Whittle, Edward George, Whitehaven.

The following candidate, having passed in Medicine and Midwifery, will receive the College licence on obtaining a qualification in Surgery recognised by the College :—

Smith, Herbert Neale, Richmond Villa, Brighton.

ROYAL COLLEGE OF SURGEONS OF ENGLAND.—The following gentlemen passed their primary examinations in Anatomy and Physiology at a meeting of the Court of Examiners on the 1st inst., and when eligible will be admitted to the pass examination :—

Barnes, James John Frederick, student of Westminster Hospital.
Beverley, William Henry, of the Leeds School.
Blake, William Henry, of University College.
Cape, Thornton George, of St. Thomas's Hospital.
Corrie, Joseph, of the Leeds School.
Edwards, John Nathaniel, of the Dublin School.
Golland, Alfred, of the Manchester School.
Green, Marryat Hahnemann, of St. Thomas's Hospital.
Lennon, George Landon, of the Manchester School.
North, Henry, of St. Thomas's Hospital.
Perry, Charles Edward, of Guy's Hospital.
Phelps, William, of Guy's Hospital.
Prytherch, Hugh, of the Dublin Hospital.
Ramsbotham, Edward, of St. Thomas's Hospital.
Rowbotham, Arthur Joseph, of Guy's Hospital.
Sandwith, Fleming Mant, of St. Thomas's Hospital.
Smale, Henry Charles, of the Manchester School.
Smith, Charles Callow, of St. Thomas's Hospital.
Sweeting, Martin Cass, of the Leeds School.
Taylor, Daniel Peter Hughes, of King's College.
Thompson, Alfred, of the London Hospital.
Walker, William, of the Middlesex Hospital.

Fourteen candidates were rejected.

The following gentlemen passed on the 4th inst, viz. :—

Ashworth, John Wallwork, student of the Manchester School.
Baillie, Richard Houghton, of St. Bartholomew's Hospital.
Clarke, William Theobald Blanton, of St. Bartholomew's Hospital.
Clubbe, Charles Percy Barré, of St. Bartholomew's Hospital.
Cones, George Augustus Willard, of St. George's Hospital.
Dowding, Alexander William Woodman, of the London Hospital.
Ellis, Henry Brook, of the Middlesex Hospital.
Evans, Charles Watkins, of St. Thomas's Hospital.
Feltham, William Parsons, of St. Bartholomew's Hospital.
Haselden, Robert, of St. Bartholomew's Hospital.
Hambleton, Godfrey William, of St. Bartholomew's Hospital.
Hindle, George, of St. Bartholomew's Hospital.
Lacey, Charles William, of Guy's Hospital.
Looker, John Evans, of the Manchester School.
Mouritz, Arthur Albert, of the Liverpool School.
Richardson, Arthur, of the Manchester School.
Richards, Philip Morgan, of the London Hospital.
Smyth, Albert Charles Butler, of St. Bartholomew's Hospital.
Tuke, George Montagu, of St. Bartholomew's Hospital.
Whitley, Francis George Herbert, of St. Bartholomew's Hospital.

Of the 181 candidates examined, 61 were referred to their Anatomical and Physiological studies for three months.

APOTHECARIES' HALL.—The following gentlemen passed their examination in the Science and Practice of Medicine, and received certificates to practise, on Thursday, April 30 :—

Jones, James Thomas, Tredegar, Monmouth.
Perkins, John, Notting-hill.
Potts, Edward, Edinburgh.
Romano, Frederick William Richard, Albany-road, Camberwell.
Schlésinger, Maurice Martin, Chichester-street, Hyde-park.
Sincock, John Bain, Manor Hall, Forest-hill.

The following gentleman also on the same day passed his primary professional examination :—

Ford, Robert Giles, London Hospital.

APPOINTMENT.

*** The Editor will thank gentlemen to forward to the Publishing-office, as early as possible, information as to any new Appointments that take place.

ANDERSON, THOMAS, M.B. Edin.—Medical Superintendent of Mid-Lothian and Peebles County Asylum, Roslin, near Edinburgh.

BIRTH.

MERCER.—On April 30, at Leicester Villa, Effra-road, Brixton, the wife of John T. Mercer, M.B. Lond., of a son.

MARRIAGES.

BARCLAY—MCCALLY.—On April 30, at St. James's Church, Notting-hill, Charles Henry Barclay, second son of Charles Barclay, Esq., Deputy Surgeon-General, Indian Medical Department, to Dora Mary, second daughter of the late Major-General Andrew Munro McCally, of the Madras Army.

BORLASE—BORLASE.—On April 29, at St. Michael's Church, Helston, Cornwall, Christopher Gullett Borlase, Esq., solicitor, Mitcheldean, Gloucestershire, to Mary Anne, eldest daughter of H. W. Borlase, M.D., Helston.

MORRIS—WATERS.—On April 30, at St. Paul's, Hammersmith, Henry Morris, Esq., late Staff Surgeon 6th Royals, to Alice, second daughter of the late William Waters Waters, Esq., of Thurlow-square, South Kensington.

TICEHURST—JOY.—On April 29, at All Saints Church, Maidstone, Charles Sage Tycehurst, L.R.C.P. Lond., M.R.C.S. Eng., of Bishops Waltham, Hants, son of Frederic Ticehurst, Esq., J.P., of Hastings, to Alice, second daughter of Henry W. Joy, F.R.C.S., J.P., of Maidstone.

WEATHERS—WOOD.—On April 23, at the Church of St. Aloysius, Somers Town, George Weathers, M.R.C.S., L.S.A., of Hampstead-road, to Mary Agnes, eldest daughter of the late T. Wood, Esq., of Ditchling, Sussex.

DEATHS.

BIRD, FREDERIC, M.D., at his residence, 13, Grosvenor-street, on April 28, aged 56.

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EAGER, GRACE ISABELLA, wife of T. Cawley Eager, L.R.C.P. Edin., M.R.C.S. Eng., L.S.A., at Burton Cottage, Woking, Surrey.

GAISFORD, THOMAS, M.R.C.S. Eng., after a lingering illness, at 78, Upper Gloucester-place, Dorset-square, on May 4, aged 59.

HANSLIP, THOMAS, M.R.C.S. Eng., L.S.A., at 7, Milner-street, Islington, on May 3.

LLOYD, JOHN AUGUSTUS, M.D., F.R.C.S. Eng., J.P., second son of the late Lieut.-Colonel Herbert Lloyd, of Chelsea, at his residence, 17, Bennett-street, Bath, on April 29.

NUGENT, HENRY, M.D., late Army Medical Department, second son of John Nugent, M.D., on board the ss. *Patagonia*, two days before arriving at the Straits of Magellan, on February 27, aged 33.

SWETE, BENJAMIN LENNOX, M.B., M.R.C.S. Eng., son of the late Rev. Benjamin Swete, Prebendary of Kilbrittain, co. Cork, at his residence, Gaisford-street, Kentish Town, on May 2, aged 54.

VACANCIES.

In the following list the nature of the office vacant, the qualifications required in the Candidate, the person to whom application should be made, and the day of election (as far as known) are stated in succession.

HOSPITAL FOR WOMEN, SOHO-SQUARE.—House-Physician. Candidates must be duly qualified. Applications, with testimonials, to the Medical Committee, on or before May 16.

HULL GENERAL INFIRMARY.—Honorary Physician. Applications, with testimonials, to the Chairman, at the Infirmary.

KILBURN DISPENSARY.—Assistant Resident Medical Officer. Candidates must be duly qualified. Applications, with testimonials, to the Honorary Secretary, 33, Boundary-road, Finchley-road, N.W., on or before May 12.

LANCASTER COUNTY ASYLUM.—Assistant Medical Officer. Applications, with testimonials, to the Superintendent.

LITTLEMORE PAUPER LUNATIC ASYLUM, NEAR OXFORD.—Assistant Medical Officer. Candidates must be duly qualified. Applications, with testimonials, to the Medical Superintendent, on or before May 13.

PARISH OF LAMBETH.—Resident Medical Officer and Dispenser. Candidates must be duly qualified. Applications, with testimonials, to Mr. Wilmot, Clerk, Guardians' Board-room and Offices, Pleasant-place, Brook-street, Kennington-road, S.E., on or before May 18.

ST. THOMAS'S HOSPITAL.—Resident Assistant-Physician. Candidates must be duly qualified. Applications, with testimonials, to the Treasurer, at the office, St. Thomas's Hospital.

UNIVERSITY COLLEGE HOSPITAL.—Resident Medical Officer. Applications, with testimonials, to John Robson, B.A., Secretary to the Council, on or before May 23.

WESTERN INFIRMARY, GLASGOW.—Superintendent. Candidates must be registered medical practitioners. Applications, with testimonials, to the Honorary Secretary, on or before June 15.

WOLVERHAMPTON AND STAFFORDSHIRE GENERAL HOSPITAL, WOLVERHAMPTON.—House-Surgeon. Candidates must be duly qualified. Applications, with testimonials, to the Chairman of the Medical Committee, on or before June 1.

UNION AND PAROCHIAL MEDICAL SERVICE.

*** The area of each district is stated in acres. The population is computed according to the census of 1871.

RESIGNATIONS.

Dartford Union.—Mr. Richard H. Hunter has resigned the Workhouse; salary £65 per annum.

Westminster Union.—Mr. Daniel C. Noel has resigned the School; salary £60 per annum.

APPOINTMENTS.

Axminster Union.—James C. Pritchard, L.R.C.P. Edin., M.R.C.S. Eng., L.S.A., to the Lyme Regis District.

Calne Union.—Henry W. A. Sandell, L.R.C.P., M.R.C.S., to the District and Workhouse.

Durham (County of).—Mr. Alfred J. M. Edger, as Analyst.

Guildford Union.—George Fisher, M.R.C.S. Eng., L.R.C.P. Edin., to the Albury District.

Newcastle-under-Lyme Union.—George H. Ormsby, L.R.C.S. Ire., L.K. & Q.C.P. Ire., to the Whitmore District.

Norfolk (County of).—Francis Sutton, F.C.S., as Analyst, for one year.

St. Giles (Camberwell) Parish.—Herbert Chabôt, M.R.C.S. Eng., L.S.A., to the St. George's District.

St. Saviour's Union.—Richard B. Hogg, M.R.C.S. Eng., L.S.A., to the Seventh District.

Thetford Union.—John R. Clouting, M.R.C.S. Eng., L.S.A., to the Croxton District; Pembroke R. J. B. Minns, M.D. St. And., M.R.C.S. Eng., to the Workhouse.

ROYAL COLLEGE OF SURGEONS IN IRELAND.—At a meeting of the College held on May 5, the following gentlemen were elected examiners for the ensuing year:—*Examiners for Letters Testimonial and Fellowship:* Christopher Fleming, Benjamin Wills Richardson, Edward A. Stoker, John Barker, William S. O'Grady, Robert McDonnell, and William H. O'Leary. *Examiners for the Diploma in Midwifery:* John Cronyn, John R. Kirkpatrick, and William Roe. *Examiners in General Education:* Henry J. Tweedy, William Stoker, and Montgomery Ward.

PRIZE LIST AT ST. BARTHOLOMEW'S HOSPITAL.—The following is the list of successful competitors in the class and other prize competitions at the close of the last Winter Session:—*Kirkes Gold Medal* for Clinical Medicine, Mr. J. Macready. *Hitchen's Prize*, for Butler's Analogy, Mr. S. Maberly Smith. *Senior Scholarship* of the value of £50 for Anatomy, Physiology, and Chemistry, Mr. Frederick S. Eve. *Foster's Prize* for Anatomy (second year's students), Mr. F. S. Edwards; Messrs. Eve, Verrall, and Shoolbred were placed second, third, and fourth respectively. *Treasurer's Prize* for Practical Anatomy (first year's students), Mr. Steadman. Messrs. Anderson and Davy were bracketed equal for second place.

PRIZEMEN AT WESTMINSTER HOSPITAL.—The following is the list of prizemen for the Winter Session, 1873-74:—*Exhibition for First Year's Students:* Mr. Robertson. *Anatomy:* First Certificate of Honour, Mr. Robertson; Second, Mr. Gill; Third, Mr. Aldrich; Fourth, Mr. Elliott. *Physiology:* First Certificate, Mr. Bodecker; Second, Mr. Aldrich; Third, Mr. Robertson. *Chemistry:* First Certificate, Mr. Bodecker; Second, Mr. Foster; Third, Mr. Robertson. Second Year's Students' Prizes:—*Scholarship:* Mr. Quicke. *General Proficiency Prize:* Not awarded. *Anatomy:* First Certificate, Mr. Quicke; Second, Mr. Clarke; Third, Mr. Harris. *Physiology:* First, Mr. Clarke; Second, Mr. Quicke. *Medicine:* First, Mr. Clarke. *Histology:* First, Mr. Quicke; Second, Mr. Clarke. Mr. Davy's Prizes were awarded to Messrs. Elliott and Gill. The Chadwick Prize for Senior Students was taken by Mr. Jaquet, as was also the Prize for Clinical Medicine.

MR. JOHN R. BEGG, of Dundee, L.R.C.S. Edin., died somewhat suddenly on Thursday, April 30. He visited his patients on the Wednesday, and on returing home, fell down insensible; he apparently recovered on the following morning, but in the afternoon got worse suddenly, and expired. About two years ago, while sitting in church, a chandelier fell on his head, and he was never well afterwards.

THE PHARMACEUTICAL SOCIETY.—The President and Council of this Society have issued invitations for a *conversazione* to be held at the South Kensington Museum on the 20th inst.

AT the general monthly meeting of the Royal Institution of Great Britain, on Monday, May 4, the Duke of Northumberland, D.C.L., President, in the chair, John Tyndall, Esq., LL.D., F.R.S., was re-elected Professor of Natural Philosophy; and the managers announced that they had appointed John Hall Gladstone, Esq., Ph.D., F.R.S., Fullerian Professor of Chemistry.

JOURNALISM in some cases seems to be appreciated. The subscriptions collected in aid of the family of the late Dr. Webb, Editor of the *Medical Times and Gazette*, amount to about £2000.—*Printers' Register.*

THERE were 1256 deaths in London last week, which was 242 below the average. The annual death-rate, which in the two previous weeks had been 21 and 20 per 1000, declined last week to 19. There were forty fatal cases of measles, which were again excessive, but the total of the seven principal diseases of the zymotic class showed no less than 102 below the average.

THE Registrar-General, in his last quarterly report, states that in the United Kingdom the deaths of 183,209 persons were registered in the three months ending 31st March last. The general results of the returns are favourable. The public health was better than usual; for though measles, whooping-cough, and scarlet fever prevailed, small-pox, fever, and diarrhœa grew less fatal, and the mortality fell below the average of the winter season both in town and country. This was partly due to the mildness of the season, and partly to the increased administrative efficiency of sanitary measures, which, long contemplated, are now to some extent in operation. Under the inspiration of the salutary principle *sanitas sanitatum* further improvements in the life of the nation may be expected to become visible in the returns.

MEATH HOSPITAL AND COUNTY OF DUBLIN INFIRMARY.—The winter session of 1873-74 at this Hospital was formally closed on Saturday, May 2, when a distribution of prizes took place in the theatre of the institution. The medical prizes were presented as follows, by Dr. Stokes, Physician-in-Ordinary to the Queen:—*First Senior Medical Prize:* Cæsar Sherrard. *Second Senior Medical Prize:* Peter J. Farrell. *Hudson Prizes for Medical Cases:* First, Jeland Robinson; Second, Thomas L. O'Flaherty. The surgical prizes were presented by Mr. George Henry Porter, Surgeon-in-Ordinary to the Queen in Ireland. *First Senior Surgical Prize:* T. E. Ryan. *Second Senior Surgical Prize:* David Drummond. *Junior Surgical Prize:* William Lee. Mr. Kendal M. Franks, who acted as clinical clerk in the medical wards during the past session, lately obtained the gold medal of the Pathological Society of Dublin for his essay "On Injuries and Diseases of Articular Cartilages."

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THE INTERNATIONAL MEDICAL CONGRESS.—This body will meet at Brussels from September 19 to September 26, 1875, and a committee has been organised to make the necessary preparations. It consists of M. Vleminckx, President of the Academy of Medicine, and the three Vice-Presidents, MM. Deroubaix, Bellefroid, and Crooq, together with M. Warlomont, who acts as secretary. The committee is about to occupy itself with the choice of questions to be discussed, and will be glad to receive any suggestions prior to the month of January, when the programme will be published.

ANECDOTE OF PROFESSOR CLAUDE BERNARD.—At the end of 1834, Claude Bernard first arrived in Paris, all his possessions in the world being a tragedy in verse—unacted, of course. The young poet, summoning up all his courage, rang the bell of a literary celebrity of the epoch. "I have called, sir," stammered out poor Claude, "to beg of you to peruse a tragedy which I have just completed, and to favour me with your opinion on my work. Here it is (drawing from his pocket a roll of paper tied round with a red ribbon); I will leave it with you, and in a few days will call again to hear what you think of it." "Stay, young man," M—— replied immediately. "You seem honest and intelligent, and I feel great interest in you. Now, take my advice: become an advocate without a brief, a doctor without a patient—anything you like; but for God's sake abandon all your projects in dramatic literature. There may be in you the stuff of which a Corneille or a Molière is made. Never mind. Stick to pure science, and you will make yourself a name in it." The advice was followed, and we all know with what result. The tragedy, with its smart ribbon, never again left its author's pocket. Its title was "Louis VI.," and it is now for ever gone, Claude Bernard having long since committed it to the flames.—(Review of M. Chereau's "Parnasse Médicale Français") *Union Méd.*, May 2.

COMPOSITION AND QUALITY OF THE METROPOLITAN WATERS IN APRIL, 1874.—The following are the returns (by Dr. Letheby) of the Society of Medical Officers of Health:—

Names of Water Companies.	Total Solid Matter per Gallon.	Oxygen required by Organic Matter, &c.	Nitrogen.		Hardness.	
			As Nitrates &c.	As Ammonia.	Before Boiling.	After Boiling.
Thames Water Companies.	Grains.	Grains.	Grains.	Grains.	Degs.	Degs.
Grand Junction .	19·23	0·046	0·124	0·002	14·9	3·8
West Middlesex .	17·91	0·044	0·129	0·001	14·5	4·0
Southwark & Vauxhall . . .	18·73	0·075	0·123	0·002	14·5	3·9
Chelsea . . .	19·07	0·044	0·115	0·003	14·8	3·8
Lambeth . . .	17·47	0·049	0·116	0·003	14·3	3·8
Other Companies.						
Kent. . . .	28·23	0·001	0·239	0·000	21·2	6·0
New River . .	20·00	0·016	0·136	0·001	15·6	4·0
East London . .	18·73	0·081	0·165	0·002	15·3	4·2

Note.—The amount of oxygen required to oxidise the organic matter, nitrites, etc., is determined by a standard solution of permanganate of potash acting for three hours; and in the case of the metropolitan waters the quantity of organic matter is about eight times the amount of oxygen required by it.

The water was found to be clear and nearly colourless in all cases but the following, when it was more or less turbid—namely, in those of the Grand Junction, the Chelsea, the Southwark and Vauxhall, and the Lambeth Companies.

The average quantity of water supplied daily to the metropolis during the preceding month was, according to the returns of the Water Companies to the Society of Medical Officers of Health, 109,544,116 gallons; and the number of houses supplied was 506,818. This is at the rate of 32·6 gallons per head of the population daily. The last official return from Paris stated that the average daily supply per head of the population was 29·5 gallons; but this includes the water used for the public fountains, and for the ornamental waters in the Bois de Vincennes and the Bois de Boulogne.

NOTES, QUERIES, AND REPLIES.

He that questioneth much shall learn much.—*Bacon.*

A Resident Medical Officer has neglected to authenticate his letter with his name.

Dr. Carson, Coleraine, is thanked for his kind opinion. The case has been thus long unpublished simply from want of space.

Edwin.—The name of no such person, at that address, appears either on the Medical Register or in the "Medical Directory."

Dr. Smith.—If you apply to Mr. Stone he will exchange Pensioner's Votes for Foundation Scholar's in favour of H. C. Webb.

*** We have received a long letter from Dr. Charles Bell with regard to the accusations he has brought against the directors of the Edinburgh Royal Maternity Hospital. In such cases we are always glad to insert any statement which a man may wish to publish in self-defence, as long as he deals with facts and not in personalities. Had Dr. Charles Bell sent us such a statement we should undoubtedly have published it; but the letter he has sent us is full of personal abuse—in short, it is one we could not insert in our columns, if only for the self-respect which the character of our journal demands. If Dr. Charles Bell will forward a plain statement of fact, we shall be glad to publish it, only we warn him that we do not undertake to correct gross errors in grammar and spelling.

Censor.—The official Registrar of Deaths in Paris is Dr. Werms.

Oculist.—The new buildings erected in Berkeley-street for the Glasgow Eye Infirmary were opened on the 27th ult.

W. McG.—Dr. William Hawes died on December 6, 1808, and was buried at Islington.

Adolphus.—"Hospital Training for Ladies," by the Right Hon. Viscountess Strangford. Harrison and Sons, Pall-mall.

J. N. C.—The gold medal for the best essay on Diseases of the Articular Cartilages has been awarded by the Pathological Society of Dublin to Mr. Kendal M. Franks.

TABLE OF FEES WANTED.

TO THE EDITOR OF THE MEDICAL TIMES AND GAZETTE.

SIR,—Can you inform me where and how I may obtain a scale of fees suitable for a good-class general practitioner in a country town and the surrounding neighbourhood—both for one who dispenses his own medicine, and for one who does not? I have made several attempts to gain some knowledge upon this matter, but am always told there is no fixed charge, and that everyone has his own. However, I wish to form some idea of what this should be, and shall feel very much obliged if you are able to assist me. I am, &c.,

P. P.

Caius College, Cambridge, May 2.

*** Various lists of the kind are published. Perhaps some of our readers will be kind enough to forward specimens to us. The whole matter of fees want revision.

An Old Subscriber, Plymouth.—There are eight vacancies for Foundation Scholars in the Royal Medical Benevolent College, and forty-two candidates. You can, if so disposed, give your eight votes to young Webb, and having signed the voting paper, send it on to Mr. T. M. Stone, of the College of Surgeons. The election will take place on the 28th inst.

J. P. B., R. N., and Dr. H., Winchester.—Mr. Quain will take the chair at the annual festival of the Fellows of the College of Surgeons. Your wish to be one of the stewards should be made to Mr. T. Carr Jackson, of 91, Harley-street, Cavendish-square, the Honorary Secretary.

Royal Literary Fund.—Perhaps the following are the lines to which you allude:—

"In the woods of the North there are insects that prey
On the brain of the elk till his very last sigh:
O genius, thy patrons, more cruel than they,
First feed on thy brains, and then leave thee to die!"

Osmunda Regalis.—It is a country saying that "When the fern is as high as a spoon, you may sleep an hour at noon"; or, "When the fern is as high as a ladle, you may sleep as long as you're able." Again, "When fern begins to look red, then milk is good with brown bread."

Dr. Williams.—The "Lyceum Medicum Londinense" was established by John Hunter in 1785.

Samuel Thomson.—The late Sir Anthony Carlisle, a twice-elected President of the College of Surgeons, used to say that the spleen was a stomach-warmer, adding that his cook said it was good to make gravy of. The ancients considered the spleen the seat of mirth, and the liver the organ of love; hence their old proverb, "*Splen ridere facit, cogit amare jecur.*"

H. S.—Dr. Henry Revell Reynolds was one of the physicians who attended George III. during his afflicting and protracted malady. He was an excellent specimen of a well-dressed and well-bred gentleman to the last. We are told he wore a well-powdered wig and a silk coat. The following are the lines of which you make mention:—

"Here well-dressed Reynolds lies,
As great a beau as ever!
We may perhaps see one as wise,
But sure a smarter never."

J. L., M.R.C.S., Guy's.—The late Sir Astley Cooper, of your Hospital, was the first baronet, being created in 1821. The second baronet was his nephew, who succeeded his uncle under a special remainder in the patent of creation in default of male issue. Sir Astley was, in fact, childless. He was President of the Royal College of Surgeons twice—viz., in 1827, when he succeeded the celebrated John Abernethy, and again in 1836, in succession to Mr. J. G. Andrews, of the London Hospital.

Diogenes.—The Select Committee of the House of Commons on the Adulteration of Food Act, 1872, consisted of the following members:—Mr. Clare Read, Mr. Munts, Mr. Welby, Sir Charles Dilke, Mr. Peek, Mr. Colman, Mr. Carpenter-Garnier, Mr. Brown, Viscount Barrington, Mr. Backhouse, Mr. Heygate, Mr. Mundella, Mr. Sandford, Dr. Brady, and Mr. Benyon.

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Lithotomist.—In the *Gentleman's Magazine* for August, 1733, it is stated that Mr. Paul, a surgeon at Stroud, Gloucestershire, extracted from the kidney of a woman, by an incision through her back, a calculus as large as a pigeon's egg, and made a perfect cure.

A Naval Surgeon.—The whole of the medical officers who went out to the West Coast of Africa for service with the Ashantee Expedition will, we understand, do duty at home stations for a time. Deputy Surgeons-General Mackinnon, C.B., and Woolfreyes are to assume the charge of districts in the United Kingdom; and Surgeon-Major M'Nalty—also promoted for distinguished service—is to be attached to the head-quarters of the Army Medical Department in Whitehall-yard.

COMMUNICATIONS have been received from—

Dr. Balthazar Foster, Birmingham; Mr. W. F. Teevan, London; A Resident Medical Officer; Dr. W. B. Carpenter, London; Mr. S. Messenger Bradley, Manchester; The Registrar of the Royal College of Physicians, London; Dr. J. W. Allan, Fort William, N.B.; Mr. R. Kershaw, London; The Secretary of the Apothecaries' Hall; Mr. W. Barkley, Worcester; Mr. J. Price, Shirley; Dr. Parkin, London; Mr. J. C. Craig, Baltimore; Mrs. Fereday; Mr. Histon, Bristol; The Directors of the Australian Meat Agency (Tallerman's) Company, London; Mr. H. K. Hitchcock, Lewisham; P. P., Cambridge; Dr. E. L. Hussey, Oxford; Mr. E. R. Morgan, Neath; Beth-Gelert; Dr. Carson, Coleraine; Mr. Benjamin Vincent, London; Mr. T. M. Stone, London; Mr. G. Brown, London; Dr. Vinen, London; Dr. Russell, Birmingham; Dr. Eustace Smith, London; Mr. G. C. T. Bartley, London; Mr. Wm. Odell, Hertford; Dr. T. Anderson, Dumfries; Mr. T. Churton, Erith; Mr. E. Bremridge, London; Professor Bentley, London; Dr. F. A. Hartsen, Cannes; Dr. Sparks, London; Dr. Lake, Southampton; Mr. H. A. Lawton, Liverpool; Dr. Brakenridge, Edinburgh; Mr. G. Gaskoin, London; Dr. T. Clifford Allbutt, Leeds; Dr. Moxon, London; Dr. Lawson, London; Mr. J. Chatto, London.

BOOKS AND PAMPHLETS RECEIVED—

Lebert's Klinik der Brustkrankheiten—Williams on Skin Diseases of Constitutional Origin—Report of the Metropolitan Board of Works—Griffith's Universal Formulary, edited by Maisch—Brigham on the Influence of Mental Cultivation upon Health—Bulkley on Herpes Gestationis—Bakewell on the Red Corpuscles of the Blood.

PERIODICALS AND NEWSPAPERS RECEIVED—

Lancet—British Medical Journal—Medical Press and Circular—Nature—Pharmaceutical Journal—Irish Hospital Gazette—Gazette Hebdomadaire—Indian Gazette—Science Gossip—Monthly Microscopical Journal—Gazette des Hôpitaux—Allgemeine Wiener Medizinische Zeitung—Bulletin Général de Thérapeutique—Edinburgh Medical Journal—Practitioner—La France Médicale—Bulletin de l'Académie de Médecine Berliner Klinische Wochenschrift—Centralblatt für Chirurgie—Le Progrès Medical—Gazette Medicale de Paris—La Tribune Médicale—La Médecine Contemporaine.

APPOINTMENTS FOR THE WEEK.

May 9. Saturday (this day).

Operations at St. Bartholomew's, 1½ p.m.; King's College, 2 p.m.; Charing-cross, 2 p.m.; Royal Free, 9 a.m. and 2 p.m.; Hospital for Women, 9½ a.m.; Royal London Ophthalmic, 11 a.m.; Royal Westminster Ophthalmic, 1½ p.m.; St. Thomas's, 9½ a.m.

Royal Institution, 3 p.m. Mr. R. A. Proctor, "On the Planetary System."

11. Monday.

Operations at the Metropolitan Free, 2 p.m.; St. Mark's Hospital for Diseases of the Rectum, 2 p.m.; St. Peter's Hospital for Stone, 3 p.m.; Royal London Ophthalmic, 11 a.m.; Royal Westminster Ophthalmic, 1½ p.m.

12. Tuesday.

Operations at Guy's, 1½ p.m.; Westminster, 2 p.m.; National Orthopædic, Great Portland-street, 2 p.m.; Royal London Ophthalmic, 11 a.m.; Royal Westminster Ophthalmic, 1½ p.m.; West London, 3 p.m.

Royal Institution, 3 p.m. Prof. Rutherford, "On the Nervous System."

Anthropological Institute, 8 p.m. Meeting.

Royal Medical and Chirurgical Society, 8½ p.m. Mr. Barwell, "On Septic Disease in and out of Hospitals." Mr. Higgens, "On Two Cases of Hæmorrhagic Diathesis."

13. Wednesday.

Operations at University College, 2 p.m.; St. Mary's, 1½ p.m.; Middlesex, 1 p.m.; London, 2 p.m.; St. Bartholomew's, 1½ p.m.; Great Northern, 2 p.m.; St. Thomas's, 1½ p.m.; Samaritan, 2½ p.m.; King's College (by Mr. Wood), 2 p.m.; Royal London Ophthalmic, 11 a.m.; Royal Westminster Ophthalmic, 1½ p.m.

Epidemiological Society, 8 p.m. Council Meeting.

14. Thursday.

Operations at St. George's, 1 p.m.; Central London Ophthalmic, 1 p.m.; Royal Orthopædic, 2 p.m.; University College, 2 p.m.; Royal London Ophthalmic, 11 a.m.; Royal Westminster Ophthalmic, 1½ p.m.

Royal Institution, 3 p.m. Mr. N. S. Maskelyne, "On Physical Symmetry in Crystals."

15. Friday.

Operations at Central London Ophthalmic, 2 p.m.; Royal London Ophthalmic, 11 a.m.; South London Ophthalmic, 2 p.m.; Royal Westminster Ophthalmic, 1½ p.m.; St. George's (ophthalmic operations), 1½ p.m.

Royal Institution, 9 p.m. Dr. C. W. Siemens, "The Steamship *Faraday* and her Appliances for Cable Laying."

VITAL STATISTICS OF LONDON.

Week ending Saturday, May 2.

BIRTHS.

Births of Boys, 1272; Girls, 1187; Total, 2459.
Average of 10 corresponding years 1864-73, 2238·8.

DEATHS.

	Males.	Females.	Total.
Deaths during the week	653	603	1256
Average of the ten years 1864-73	723·1	638·8	1361·8
Average corrected to increased population	...	...	1498
Deaths of people aged 80 and upwards	...	...	48

DEATHS IN SUB-DISTRICTS FROM EPIDEMICS.

	Population, 1871.	Small-pox.	Measles.	Scarlet Fever.	Diphtheria.	Whooping-cough.	Typhus.	Enteric (or Typhoid) Fever.	Simple continued Fever.	Diarrhœa.
West	561359	...	13	...	3	9	1	2	...	3
North	751729	...	7	2	...	10	...	4	1	4
Central ...	334969	...	9	5	1	6	1	1	...	3
East	639111	...	4	7	1	8	...	1	4	5
South	967692	...	7	2	4	13	2	2	2	5
Total	3254260	...	40	16	9	46	4	10	7	20

METEOROLOGY.

From Observations at the Greenwich Observatory.

Mean height of barometer	29·972 in.
Mean temperature	50·6°
Highest point of thermometer	75·1°
Lowest point of thermometer	30·5°
Mean dew-point temperature	41·6°
General direction of wind	E.S.E. & E.
Whole amount of rain in the week	0·01 in.

BIRTHS and DEATHS Registered and METEOROLOGY during the Week ending Saturday, May 2, 1874, in the following large Towns:—

Boroughs, etc. (Municipal boundaries for all except London.)	Estimated Population to middle of the year 1874.*	Persons to an Acre. (1874.)	Births Registered during the week ending May 2.	Deaths Registered during the week ending May 2.	Temperature of Air (Fahr.) Highest during the Week.	Lowest during the Week.	Weekly Mean of Mean Daily Values.	Temp. of Air (Cent.) Weekly Mean of Mean Daily Values.	Rain Fall. In Inches.	In Centimetres.
London	3400701	45·1	2459	1256	75·1	30·5	50·6	10·33	0·01	0·03
Portsmouth ...	120436	26·8	59	46	...	...	...	...	0·00	0·00
Norwich	82257	11·0	58	25	66·0	31·0	46·8	8·22	0·03	0·08
Bristol	192389	43·3	146	60	76·7	37·2	52·8	11·56	0·00	0·00
Wolverhampton ...	70896	20·9	54	32	78·0	33·4	53·0	11·67	0·00	0·00
Birmingham ...	360892	43·0	300	178	75·0	33·6	53·2	11·78	0·00	0·00
Leicester	106202	33·2	101	33	76·2	32·2	52·2	11·22	0·00	0·00
Nottingham ...	90894	45·5	72	44	76·0	33·1	53·2	11·78	0·00	0·00
Liverpool	510640	98·0	370	268	72·2	38·2	51·8	11·00	0·00	0·00
Manchester ...	355339	82·8	280	234	80·5	35·0	54·7	12·61	0·00	0·00
Salford	133168	25·7	118	48	77·5	32·3	52·8	11·56	0·02	0·05
Oldham	86281	18·5	76	53	72·5	...	...	...	0·00	0·00
Bradford	163056	22·6	108	78	67·9	35·6	49·9	9·94	0·00	0·00
Leeds	278798	12·9	209	154	70·0	36·0	51·4	10·78	0·00	0·00
Sheffield	261029	13·3	211	122	72·0	31·5	51·3	10·72	0·00	0·00
Hull	130996	36·0	99	38	59·0	30·0	45·5	7·50	0·03	0·08
Sunderland ...	104378	31·6	56	38	...	...	...	...	...	...
Newcastle-on-Tyne	135437	25·2	99	63	60·0	36·0	47·4	8·55	0·00	0·00
Edinburgh	211691	47·8	154	103	...	...	...	...	...	...
Glasgow	508109	100·4	450	293	68·7	34·5	51·2	10·67	0·00	0·00
Dublin	314666	31·3	194	166	72·9	27·0	53·1	11·73	0·00	0·00
Total of 21 Towns in United Kingdm	7618655	36·6	5653	3332	80·5	27·0	51·2	10·67	0·09	0·23

At the Royal Observatory, Greenwich, the mean reading of the barometer last week was 29·97 in. The highest was 30·16 in. on Tuesday, April 28, and the lowest 29·75 in. on Thursday, April 30.

* The figures for the English and Scottish towns are the numbers enumerated in April, 1871, raised to the middle of 1874 by the addition of three years and a quarter's increase, calculated on the rate which prevailed between 1861 and 1871. The population of Dublin is taken as stationary at the number enumerated in April, 1871.

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ORIGINAL LECTURES.

CLINICAL LECTURES DELIVERED AT THE BIRMINGHAM GENERAL HOSPITAL.

By BALTHAZAR FOSTER, M.D., F.R.C.P.,
Physician to the Hospital, and Professor of Medicine in Queen's College, Birmingham, etc.

LECTURE I.

LONG-STANDING PLEURITIC EFFUSION, RELIEVED BY THE ASPIRATOR—GANGRENE OF BOTH LOWER EXTREMITIES FROM EMBOLISM OF THE COMMON ILIAC ARTERIES—ACUTE TUBERCULOSIS—DEATH.

GENTLEMEN,—A few days ago we stood at the bedside of a patient in Ward 7, from whom we had removed a large quantity of pleuritic fluid by the aspirator. I then called your attention to a remarkable condition which had followed the operation—viz., gangrene of both lower extremities from embolism of the common iliac arteries. I also gave you what I considered to be the explanation of this rare occurrence. Since then the patient has died; and in this lecture I propose to enter more fully into the case, and to show you how thoroughly the post-mortem examination confirmed our theory of the rare phenomena which the case presented.

The patient, a young man aged twenty-six, a draper's assistant, came to Birmingham from South Wales to seek relief for great difficulty of breathing, from which he had suffered for more than nine months. He stated that he had been strong and healthy up to the beginning of his present illness, which began as an attack of pleurisy of the right side. When I first saw him he was well-nourished, but of a pale and sallow complexion; his breath was short, especially when he attempted to move about. On examination, the right side of his chest was found to be dull all over from copious pleuritic effusion, which displaced the heart towards the left, and pushed the liver downwards. The temperature of the body was normal, the pulse 84, and the respirations 24 per minute. As he had already been treated actively by diuretics and blisters, I advised him to enter the hospital for more direct treatment. He had some objection to the evacuation of the fluid, and consequently did not apply for admission till some ten days later. In the interval he had become much worse, the dyspnœa had greatly increased, and he had suffered from sharp pain in the right side. When admitted (February 10) he was scarcely able to walk across the ward, and when placed in bed he could only breathe when propped up in the sitting posture. In the evening the respirations were 28, the pulse-beats 95 a minute, and the temperature in the axilla 100° Fahr. The right chest was almost motionless; the intercostal spaces were obliterated; the percussion-note was absolutely dull from base to apex; there was no vocal fremitus; and only distant blowing breath-sounds could be heard. The right chest measured seventeen inches and three-quarters, the left sixteen inches and a half. The left lung was healthy. The heart was displaced towards the left, the apex beating an inch outside the nipple-line. The heart-sounds were perfectly normal, and the impulse was natural.

The liver was depressed, and its edge could be felt fully one inch below the costal arch. The tongue was but slightly furred, the appetite good, the bowels constipated. The urine was clear and contained a slight trace of albumen, which had not existed when he was first seen. At the time of his admission he had been taking for three days some pills of digitalis, blue pill, and squills, which had failed to produce diuresis. As the bowels were confined, he was ordered a purgative, and the pills were discontinued. When I saw him the next day he had passed a restless night, and was not any better. The temperature had fallen to 98·8°, and the pulse to 88, but the respirations were 28 a minute. His face and lips, however, looked a little dusky, and his expression was more anxious. As the bowels were being freely acted on by the purgative, I deferred the thoracentesis, but left discretionary power with the house-physician to use the aspirator if the symptoms became worse towards night. On making his evening visit, my colleague Dr. Rickards (then the house-physician) found the man decidedly worse: the dyspnœa had increased, the lips and face were more dusky, the respirations had gone up to 36 a minute, and the pulse to 126. Dr. Rickards considered the patient's state critical, and very properly determined to evacuate the fluid by the aspirator. By means of this instrument, using a No. 2 needle, Mr. B. May, the house-surgeon, drew off nearly 130 oz. of almost clear and very albuminous fluid of specific gravity 1022. As the fluid flowed from the chest into the aspirator, the breathing improved, and the relief felt by the patient increased with every ounce evacuated. During the operation the man had no cough, and experienced no faintness nor any discomfort whatever. When the operation was completed (the whole or nearly the whole of the fluid having been drawn off) the right chest had become fairly resonant except at the base, the respiratory sounds could be distinctly heard and vocal fremitus felt. The patient expressed his sense of relief, and assumed with ease an almost recumbent posture; he slept quietly through the night.

On my visit the next morning he was able to lie down in bed. His face and lips were no longer dusky, the breathing was quieter, being only 20 a minute, the pulse was 92, and the temperature was 99° Fahr. There had been neither cough nor expectoration. The front part of the right chest was resonant, the respiratory sounds were distinct, and the movements in breathing evident. He complained of feeling low, and also of having had some pain across his back, especially on the left side. He had passed only three ounces of urine since the operation (twelve hours). He was ordered three ounces of brandy, and a mixture containing small doses of pot. iod. During the day the pains in his back troubled him a good deal, and he passed very little water—only six ounces, which was high-coloured, with a specific gravity of 1050, and loaded with urea. On the addition of nitric acid to test for albumen, the urea formed a solid mass of crystals above the acid. In the evening his pulse was 100, the respirations 26, and the temperature 99·8°. He passed a comfortable night, but in the morning his pulse had risen to 120, and the respirations to 28 a minute. The temperature was 99·5°. He complained of feeling low and weak, and also of the pain across the back. There was some dulness at the base of the right lung, but above the angle of the scapula it was fairly resonant, and the respiratory murmur could be distinctly heard, though not so clearly as on the left side; occasional friction-sounds were also heard, mixed with crackling sounds. The left lung was natural. The heart-sounds were clear; the impulse was normal both in position and force. There was no cough. The urine was still scanty, amounting during the twenty-four hours to only eleven ounces, loaded with urea, and containing a small quantity of albumen, but no sugar. A hot linseed-meal poultice was applied over the kidneys, and gr. v. of pil. scillæ co. ordered twice a day. Early in the evening he shivered slightly, his temperature rose to 100·6°, and the pulse to 126, while the respirations remained at 28. During the night he was seized with a violent pain in his right calf, which gradually spread all over the limb. The pain became less towards morning, and then he felt that he had no power in the limb, and that it gradually lost sensation.

In the morning (February 14) I found the limb of a wax-like pallor, cold, almost motionless, and at spots insensible to the touch, while at others it was exquisitely painful on pressure. There was no pulsation in the dorsal artery of the foot, in the posterior tibial, popliteal, or femoral arteries. The limb had evidently lost its blood-supply from obstruction of the main artery above Poupart's ligament. The left leg was warm and natural, and its arteries were easily felt. The respirations were 32, the pulse 120, but the temperature had fallen to 98·8°. The man's expression was singularly calm and free from anxiety. The tongue was clean, the appetite fairly good. He was ordered some brandy-and-egg mixture, instead of his brandy, and some carbonate of ammonia and nitrate of potash were added to his iodide of potassium mixture. The limb was enveloped in cotton-wool, and artificial warmth was applied. During the day he shivered slightly twice, and in the evening his temperature had risen to 100·2°, the pulse to 126; the respirations were 32. He passed a restless night from pain in the left leg similar to that previously felt in the right. In the morning we found the left limb pale, cold, and pulseless. The temperature in the axilla was 100·6°, the pulse 120, and the respirations 28. The urine had increased to 19 oz., and the specific gravity had fallen to 1032; it still contained albumen. In other respects there was little change in the general state of the patient. The right leg was much discoloured, and on the morning of the 16th, when I specially called your attention to the case, the right leg was a typical example of dry gangrene, and the left was following the same course. The patient was worse, too, in other respects; his

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temperature was 101·2°, the breathing was shallow and quick, and he complained of a pain under his left shoulder-blade. On auscultation, a friction-sound was heard in that situation, and dulness at the left base was discovered. There was evidently pleurisy of the left side, in addition to his other troubles. During the day he became worse, and in the evening he was breathing forty times a minute, his pulse was 168, and the temperature 100·4°. The urine, however, had increased in quantity to 32 oz., specific gravity 1025; still containing albumen, but free from sugar. After this date the daily reports were all unfavourable. The pulse kept very high, the respirations were very frequent, and the temperature, after falling on one morning to 99·4°, rose, and on two evenings reached 105°. During the last four days of his life the pulse kept at 126, and the respirations varied from 32 to 36. The dulness in the left chest increased, and the gangrene of the limbs advanced. The belly became tumid and also slightly tender on pressure; the skin assumed an icteric tinge. The tongue, however, kept moist and fairly clean, and he took his food (chicken, milk, and rice) and the brandy-and-egg mixture up to the day before his death, when he was sick for the first time. After the 22nd his stomach refused all food, and he died quietly on February 23. He was conscious to the last; he suffered from great dyspnœa during the last few days of his life, and was delirious each night. The secretion of urine was restored on the 18th, and kept up from then till his death, varying from 52 oz. to 59 oz.; the specific gravity fell to 1015, the albumen disappeared, and it was in all respects healthy.

Such were the chief clinical details of the case. Before we proceed to read them by the light of the disclosures of the post-mortem examination, we may, I think, profitably recall the views expressed respecting the production of these remarkable phenomena. When the patient was admitted, I pointed out to you that the history of the case and the physical signs were those of a long-standing pleuritic effusion, which, judging from the man's temperature and general health, was most probably still serous in its character. The active treatment which he had undergone ineffectually, told us that removal of the fluid by thoracentesis promised the best chance of cure. The ordinary treatment had failed to remove the fluid and restore the lung to its functions. The mechanical means remained, and the circumstances of the case indicated their use. With this view the patient was admitted, but the urgency of his symptoms necessitated the operation sooner than I had anticipated. It was performed, indeed, not so much to cure his pleurisy as to save his life from the dyspnœa which threatened it. So far it was successful; but when we stood at his bedside on the fifth day after the operation, it was not to consider the value of aspiration, but rather to study the embolism which had produced the gangrene of the limbs. The day after the operation, the patient, who had been saved from imminent death by the aspirator, was comparatively comfortable; but two points in his case troubled me: the scanty secretion of urine and the character of his respirations. The breathing did not seem so much relieved as it should have been after the evacuation of so much fluid. The following day found both these causes of anxiety still present, and also a quickened pulse-rate. The scanty urinary secretion, and the character of the urine, were very puzzling, and it was only on the third morning after the operation, when the embolism of the main trunk of the right lower extremity was diagnosed, that the clue to the renal troubles was found. Two days later, when we stood together round the man's bed, and many of you examined the cold, pulseless, discoloured limbs, I told you that you were observing phenomena altogether new. We were confronted by the unforeseen. In the patient before us, after the evacuation of pleuritic fluid by a most perfect and scientific procedure, embolism of both common iliac arteries, and of the renal arteries, had occurred. On this supposition we could explain the scanty urine and the pain in the back, and on this supposition alone could we explain the characteristic condition of the lower limbs. The embolus had stopped high up above Poupart's ligament on the right side. This we inferred from the non-pulsation in the external iliac artery and the absence of any attempt to restore the nutrition of the upper part of the limb by collateral circulation; and, if high up, there was no spot more likely than the bifurcation of the common iliac artery.

But the questions naturally occurred to you, as they had done to me, Whence these emboli? and What connexion had the operation of thoracentesis and the consequent expansion of the compressed lung with their formation or dislodgment? The possible answers to these questions we discussed together. The emboli must have been derived from some spot between their sites of impaction and the radicles of the pulmonary veins. No clot formed in one of the systemic veins could have run the gauntlet of the pulmonary capillaries and produced all these phenomena. The great vessels coming from the heart presented no condition to account for the formation of a thrombus. The heart-sounds were from the first perfectly healthy, and therefore we could not suppose that any fibrinous vegetations had been detached from the aortic or mitral valves. Failing these, I next thought of the left auricle as the possible manufactory of the original thrombus. It occurred to me that the heart, displaced by the effusion, might have been so pressed upon that in some corner of the left auricle near the entrance of the pulmonary veins of the compressed lung, coagulation might have taken place. The clot so formed would have been detached when the heart resumed its natural position and the circulation through the right lung was restored, and once detached would have provided emboli to account for the phenomena of our case. This notion I mentioned to you, but I dismissed it as unsatisfactory on account of the slight amount of cardiac displacement, the absence of any cardiac distress after the operation such as a large auricular thrombus becoming loose would have occasioned, and lastly on account of the intervals which separated the appearance of the embolic phenomena.

The heart and its valves and the great arteries offering us no source for these clots, whence then did they come? One origin yet remained—the pulmonary veins. Coagulation in the veins of the affected lung seemed to be the most likely source of the emboli.

The compression of a lung by pleuritic effusion offers conditions favourable to the coagulation of blood in the branches of the pulmonary veins. It is quite conceivable that a lung not completely compressed might have some of its veins full of stagnant blood—stagnant because the pressure from the pulmonary arteries no longer aided its propulsion into the left auricle. In the case before us the partial and long-continued compression of the lung, before the supervention of the urgent symptoms which forced the man into the hospital, offered conditions most favourable to such thrombosis. At least, so it appeared to me, and therefore we concluded that the emboli were formed in the pulmonary veins of the right lung.

When the pleuritic fluid was drawn off and the lung expanded, the blood once again found its way from the right heart along the pulmonary arteries; and under this blood-pressure the coagula in the corresponding veins were gradually detached and swept into the left auricle, whence the blood-current carried them on their fatal course to the renal and iliac arteries. The pulmonary veins in which the smallest clots existed no doubt first became pervious, while the larger and more extensive clots became detached later; hence the intervals which separated the impaction of the emboli. Such was our explanation, founded on the clinical features of the case. This theory seemed to us the only one which adequately answered the questions as to the source of the clots and the relation of their impaction to the removal of the fluid from the pleura. Let us now turn to the post-mortem facts, and see how they supported our bedside reasoning.

(To be continued.)

ON TAPPING THE CHEST.

By T. CLIFFORD ALLBUTT, M.A., M.D. Cantab., F.L.S.,
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(*Concluded from page* 498.)

One other point remains undecided. Should we tap in cases of empyema where the pus has made itself another way? I should say "Yes" in almost every case. Where the opening is through the lung the pus is generally evacuated most imperfectly, the retained quantities are decomposed, and the lung is in great danger of breaking up. When, on the other hand, the opening is through the ribs, such opening is generally sinuous, narrow, and improperly placed. Some of the most satisfactory cures I have to record have taken place in cases of empyemic fistula—pulmonary, intercostal, or both—in which a free artificial opening was the means of rapid and permanent cure. Thirdly, What mode of operation answers best (*a*) for

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serum? If the serum be merely dropsical, the insertion of a fine trocar anywhere in the lower chest is sufficient: the fluid runs off, the wound is stopped by pad and plaster or a film of collodion styptic, and nothing more is needed. This may be repeated as often as required, for out of numerous cases of this kind I have never seen one which has run into empyema, although no precautions are taken by me against the entrance of air. Acute coagulating effusions in healthy constitutions do not generally recur, and they seldom become purulent, though they may do so, and the entrance of air should therefore be prevented. The rapid sub-inflammatory effusions of weakly persons who are phthisical or of phthisical families, tend quickly to pus whether tapped or not, and the entrance of air or of a dirty trocar hastens the process. For dropsical effusions, then, we require a simple exploring trocar. For inflammatory and sub-inflammatory effusions we require a carbolised trocar or needle, and some apparatus to prevent the entrance of air. One operation, even, in the latter kind sometimes suffices if the fluid be serous. For instance, I recently attended a weakly man, with Mr. Teale and Mr. Oglesby, whose right chest was very full of serum. One operation sufficed for his cure. The loudly praised instrument called the aspirator may be invaluable in many cases, but in tapping of the pleura I have found it cumbrous and even injurious. The so-called "previous vacuum" I believe to be a dialectic refinement of no practical value, and the issue of the fluid is best regulated by the natural movements of the parts which contain it. For a time I, like others, took up the aspirator with much interest, but only to conclude that its greatest service is to have introduced into practice a number of very useful trocars and perforated needles. I have now returned to the use of the old trocar with a flexible tube, by means of which we draw off the fluid under water. Nothing can answer better.(a) We may now inquire what mode of operation answers best for (*b*) purulent effusions? I am glad to notice that Dr. Ringer points out that empyema does not always give rise to hectic. The fact is, the concurrence of hectic depends upon the facilities of absorption. If pus be formed in a fresh pleura, and is moderate in quantity, hectic is sure to follow. If the pus by its increase and pressure closes all the superficial vessels and absorbents of the pleura, then hectic is so far prevented, as absorption is thus prevented. Or if, apart from pressure, the pleura has become spoilt and thickened, so far again are absorption and consequent hectic unlikely. Hectic or no hectic, however, it is now, I think, universally agreed that the pus must come out irrespective of its quantity. But opinions differ as to the mode of its removal. Numerous cases of my own, both in and out of hospital, have led me to the strong opinion that a free opening should be made at once. I cannot call to mind a single case in which closed operations succeeded in effecting a cure, and in all my own cases I believe we have had to come to an open operation sooner or later. Nay, more, I am convinced that in three cases the closed operation has done harm. By relieving the intra-thoracic pressure, absorption has become possible, and hectic has set in. The open operation, on the contrary, if so managed as to give a free outlet to the pus, always allays and generally removes hectic. At the same time, I have to allow that Dr. Ringer has some cases which tell in favour of a closed operation, and as the best kind of open operation is very painful, I shall certainly test this point over again. Of late, when once satisfied that pus exists, I have regarded all closed operations as at best a waste of time. Since the introduction of the aspirator I have repeated my trials of the closed operation with no better results. To turn now to the open operation, and the varieties of it. There is no doubt in my own mind that the posterior operation, recommended by Dr. Bowditch in his letter to me, which was published in the *Practitioner* (April, 1873), gives by far the best results. It will be remembered that Dr. Bowditch, after gauging the depth of the full pleura by the line of lowest resonance over the empty one, enters the cavity a little above this line, by dividing the muscles obliquely and passing by a free opening through the pleura in the line of the angle of the scapula. I have now tried this operation in eight cases, with the best possible results. In two of these, repeated aspirations had ended in perforation of the lung with escape of pus upwards. Both patients were in extreme illness. By the posterior operation and confinement of the patients to bed, very satisfactory improvement took place. In another case traumatic pleurisy was followed by empyema. An opening had been made between the sixth and seventh ribs in the mammary line before I saw the man, but in spite of this he languished and burnt away at an average temperature of 101°. When he came under my care, I closed the front opening and made the posterior incision. The man very rapidly recovered, and remains in perfect health. The history of a third case illustrates the difficulties which may meet us in tapping the chest. A young and otherwise healthy man came under my care at the infirmary with a filled left pleura and displaced heart. There was no doubt of the diagnosis, though oddly enough he lay throughout his illness on the sound (right) side. I ordered him to be tapped at once, and this was done with the aspirator. Eighteen ounces only were drawn off—to my great disappointment, for I estimated that at least five pints were present. On my next visit I ordered the puncture to be repeated in another place. Again but four ounces were drawn off. Curiously enough this seemed to be, and no doubt was, followed by some absorption and subsidence of the fluid, and we hoped that no farther interference would be needed. We were wrong, however, and the chest again filled. I now determined to be present at the operation myself, and to ask my surgical colleague Mr. Jessop to operate. He kindly used for me Robert's trocar, and again changed the place of puncture; but again no more than twenty ounces could be drawn off. This time the fluid was tinged with pus, and so I determined to make a free posterior opening. Five days later Mr. Jessop did this, and let out five pints at least of curdy pus. The patient is now doing well, though I regret to say that a fistulous opening formed through his lung the day before the operation. The advantage of the free posterior operation is the perfect drainage, to which both dressers and nurses freely testify. The patient must be kept in bed; no pus can putrefy in the thorax; and no injections will be required in uncomplicated cases. The patient must be rigorously confined to bed, not only for the position's sake, but also to avoid chill. Chill is the great cause of relapse in open pleuritic abscess, and a sudden chill may undo in a day the gradual gain of a fortnight. The drawbacks to the posterior operation are—1. Its liability to close; 2. Its severity. The liability to close is due, of course, to the depth of the wound, but with common care and good drainage-tubes we easily overcome this difficulty. The second objection is a grave one. An incision through the deep tissues of the back of the chest is nowadays a serious operation to perform without an anæsthetic. Now, this objection again is readily obviated if we may give anæsthetics. May we do so? My own feeling is strongly against anæsthesia in a person whose respiratory margin is so small and whose heart is probably displaced. But experience alone can decide this. In one only of my cases was chloroform given, and the result was fairly good. Dr. Bowditch, however, has been less fortunate. In a letter which I lately received from him he says of three cases in which ether was given—"The first, a female, bore it with some difficulty; the pulse fluttered and there was some lividity. She soon recovered when the sponge was removed." This woman went on well for a fortnight, and then died suddenly of purulent effusion into the pericardium, which was not suspected during life. In the second case, also a young woman, "death seemed so imminent during the operation, from the effects of the ether, that the most energetic means were resorted to. Tracheotomy and artificial respiration were employed, and the patient recovered at the time." But she never overcame the harm of the anæsthesia, and died in a few days (of exhaustion?). In the third case, the "woman died almost immediately after the operation, and it was admitted that the anæsthetic, to say the least, hastened, if it did not in that particular case cause death." Dr. Bowditch then refers me to four cases, published by Dr. John G. Blake, of Boston,(b) all of which resulted favourably, but in none of them was any anæsthetic used." In a fifth and subsequent case, however, Dr. Blake used ether. "Immediately after recovery from the ether effects a severe rigor took place. This was repeated three days later, and death followed from debility and prostration." No autopsy was allowed. "Finally (says Dr. Bowditch) Dr. Fir- field informs me that in one case in which he gave was obliged to forbear, and finish the operation withc

(a) Mr. Scattergood, of Leeds, has pointed out that air may be excluded in the use of a simple trocar, canula, and tube, if the tube be affixed to the canula before insertion and the trocar pushed into the canula through the side of the tubing. On withdrawal the puncture in

anæsthesia, the symptoms attending it being of so threatening a character that he dared not to press it." These gentlemen are agreed that the use of anæsthesia when one lung is wholly useless is to be avoided. The outcome of this is, in Dr. Bowditch's opinion, that aspiration should be used in empyema at first, the operation being stayed on the appearance of any signs of discomfort; that if a further operation be needed it must be done by free incision, without anæsthesia; that if this be refused a large trocar must be inserted, with subsequent drainage-tube of spiral wire or indiarubber, all, of course, without anæsthetic.

I differ from my valued correspondent as follows:—I have found that aspiration rarely brings about a cure, though no doubt my experience may need correction on this point; that it is certainly far from painless; that the relief of pressure without free issue for the pus not uncommonly gives rise to absorption and hectic; and, finally, that in three cases treated by aspiration I did not find that this relief stayed the passage of pus outwards by the lung,(c) so that pulmonary evacuation occurred before incision was practised. I hold, therefore, that free incision at the earliest time is far best for the patient, and that against this lies only the pain of it, concerning which the the physician must use his tact in each case. Perhaps local anæsthesia may help us, or other general anæsthetics may be less dangerous than ether. In my one case, chloroform proved harmless. If it be urged that ulceration through the lung or septic absorption are avoided by very frequent aspiration, I should reply that repeated aspirations are certainly more distressing than one incision, and that patients of mine have always shrunk from repeated aspirations. Careful reports of a score or two of aspirated cases will no doubt do much to settle the matter, and for such we must await.

In conclusion, I may turn to the details of physical signs after operation, in order to say that those who expect to find a decrease of morbid signs in proportion to the decrease of the fluid contents of the pleura will nearly always be disappointed. We have to judge of the ebb and reflux of the serum or pus as well as we can from all the circumstances of the case. An expanding lung will force a small remnant of fluid over a large surface; and it is well known, no doubt, to practised observers that great tracts of dulness will remain long after all fluid of importance is removed, and, indeed, may never wholly disappear.

ORIGINAL COMMUNICATIONS.

ON THE RELATIONS OF CANCER TO SKIN DISEASE.

By GEORGE GASKOIN,
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How far may cancer be included in a scheme of cutaneous affections? To which of them has it relation or affinity? How nearly is the intimacy maintained? By what amount of evidence is it disclosed? These are questions which appear to me well worthy of consideration, and they suggest themselves quite naturally at the present time, while the subject of cancer is being brought under discussion. Of epithelium we daily hear more and more in connexion with cancerous affections; but the very ardour with which we see histological inquiry pursued has somewhat withdrawn attention from clinical data that might be of use to confirm or to invalidate suggestions drawn solely from the microscope. The tendency which is found in cancer to repeat itself in succeeding generations must surely be in accordance with some law; and if we observe its divergences—if we take note of those forms of disease which stand in lieu of cancer, when we find its identity fail,—we shall thus best learn its affinities. A father, let us say, has had epithelioma of the lip or of the tongue,—his daughter has psoriasis; or the father had sarcoma in an internal part,—the son displays sycosis; a mother had scirrhus of the breast,—the daughter or grandson eczema; a great-aunt had cancer of the womb,— the grand-nephew acne punctata. These are not fanciful illustrations, they really occur. From the order of their occurrence, from the degree of their frequency, some amount of conclusion may be drawn. It is a matter of prime interest to me, but hardly a subject of surprise, when I see it laid down by skilled observers that cancer is derived, in some of its forms, from the epithelium of secreting glands, since I have long been persuaded that acne is of skin diseases the most frequent in sequence of cancer; and to some unhealthy condition of epithelium lining the sebaceous follicles this acne must surely be referred.

Again, epithelioma, as is well known, chiefly attacks the male sex in a proportion that has been estimated at 90 per cent. Out of six cases of psoriasis occurring in women before the period of middle age, with mention of cancer in the history, four of them derived it from the male parent affected with cancerous disease; in two cases the father had epithelioma of the lip, in one case epithelioma of the tongue, in one there had been internal cancer. The result in these young women was psoriasis.

Cancer is not of that frequency in connexion with skin disease that it should be commonly inquired after in the patients, but in turning over my note-book I have no difficulty in finding some forty cases which are sufficiently recent to lie well within the grasp of my memory, and they are the better suited to my purpose from being taken without intention either this way or that. In their summary I find fully confirmed the impression I had previously entertained, that acne is the most frequent result of cancer in skin disease. A very celebrated foreign dermatologist has expressed an idea which in my opinion is entirely erroneous—viz., that syphilis and cancer are accountable for the great bulk of eczema in the community. Now, eczema is so general a thing, its representation is so immense, that cancer would not account for ¼ per cent. of it. The children of the cancerous, I believe, are generally warned to expect some form of skin disease, and they are for the most part a weakly set with a great deal of phthisis among them. They show failing power in youth, and also in after age. A girl will have swelled ankles and anæmia, a married woman some neurotic affection, and her infant eczema capitis, or after the change of life she may herself be the subject of eczema.

I have now under my care a young female, in whom there is found an eruption of eczematous type on the face. Her hair is thinning fast, and it has also become grey in patches. She is twenty-one years of age, languid and anæmic, and is declared to have heart complaint and liver disease. The mother and sister of the patient both died from external cancer after great suffering, and both were patients of Dr. Fell, of cancer notoriety.

Eczema is to a great extent a disease of pure debility, but beyond this there are cases where we cannot but perceive that it happens in descent from cancer. In the frequency of its relations, real or apparent, with that disease, eczema maintains very nearly the proportion which is allowed to it among skin affections, constituting about one-third of the whole. I find it in a woman forty years of age, with a report of cancer on both sides of the family, no less than four of her relations being affected with it. In somewhat more than a third of these cases with eczema there is mention of cancer in more than one member of the family. In the history of a woman, aged forty-nine, whose father had an internal cancerous affection, I find that one sister died of phthisis; another sister had swelling of the leg, which led to amputation. The greater proportion affected are females, and they inherit in equal degree from either parent. Two lads and one woman seem to acquire it from their grandparents; and I will not omit mention of a boy, aged thirteen, one of the most inveterate cases of eczema I have met with. The father had phthisis, and I cannot account it for nothing that his great-grandmother died of bleeding cancer of the breast. I have also met with eczema following re-vaccination in a man fifty years of age, who had been operated on for cancer. He had in the first place been the subject of erysipelas, which left on subsiding a hard spot on the lip, and this subsequently proved to be epithelioma. It was the last case operated on by Mr. Weedon Cooke.

From such data I believe I am not wrong in establishing a relation between the eczema and the cancerous affection, even when it is so far distant as a great-aunt or great-grandmother; but I allow there is an element of fallacy in some of the cases, from the extraordinary prevalence of phthisis, as well as gout and asthma, in the offspring of the cancerous, and these we know are, *per se*, strongly productive of skin diseases. I have found instances of healthy, long-lived parents (in one case

(c) This is not including the recent case mentioned above, in which Mr. Jessop kindly operated for me. On the other hand, I must say that I have lately emptied a pleura of pus by the closed operation, and the patient seemed permanently relieved. He was, however, but a short time under observation, and had shown a most curious tolerance of the presence of a very large quantity of effusion before the operation.

exceeding 100 years) seeming to favour the view, advanced by some pathologists, that cancer is an inserted disease. In one very marked case of this description, where the average of the parents' ages was 83, there were two sons and two twin-daughters. One son lives a great sufferer from gout, one died of phthisis, one daughter did not survive infancy, and another comes under my treatment in her fiftieth year for psoriasis. And here I may say of psoriasis that its frequency in connexion with cancer in our clinique is not above half so great as that of acne, and yet its connexion with cancer is so close as to be unmistakable.

Besides the cases earlier mentioned, which may serve to prove this point, I find others which confirm it. Thus, a boy with psoriasis has a sister with malignant disease; a man with psoriasis palmaris can give me no clue to his complaint beyond the fact that his grandfather had cancer. I have been inclined to believe that psoriasis lay closer to cancer than any other skin affection, but I am a little shaken in this opinion by what I have recently observed of acne in the children of the cancerous. Until lately I was disposed to look upon acne as a reverberation—a distant echo—of the cancer; but in many instances I find its succession close and direct. I have seen several cases of psoriasis where the tongue is affected as well as the cutaneous surface; many of these are not syphilitic. I cannot conceive that to such affections of the tongue one should deny the name of psoriasis; but no one case arises in my memory of epithelioma affecting the tongue where psoriasis was simultaneously displayed upon the skin, and the record of such a case is very desirable. It is now some years since I removed the tongue for an epithelioma supervening on a condition which I perfectly recollect, having observed every stage of its growth. The disease began in denuded patches, and there were hard portions, but not of that thickness I find recently described. These descriptions correspond very well to the horny and corn-like masses we observe in palmar psoriasis. Certainly it could never have entered into my mind to call such a condition ichthyosis. And here, as in the instance before mentioned, in spite of the advance in histology, I do not see marked out any broad and sharp line by which we can divorce cancer from its congeners—if I may so term these diseases of the skin. I will not go so far as to claim for cancer the character of a skin disease, but when we look at the variety as well as prodigality displayed in the expenditure of epithelium as seen in psoriasis, one cannot but here acknowledge so very close an affinity as to bind attention to the common character of each, both clinically and histologically. The affinity of lupus with psoriasis is well apparent in the clinical room; and this reminds me that certain forms of lupus in the extremities have been recently brought forward in Germany, which in the histological elements are scarcely, if at all, different from epithelioma.

As regards acne, I will say that in connexion with it one will hear more of cancer than with any other disease that affects the skin; and the inquiry does not lead to epithelioma only, but to cancer in all its forms. I once thought that acne punctata gave far better fruit of inquiry than the other two; but both with acne simplex and acne rosacea (especially in women) I have found the parents to have been cancerous—I do not say very often, but sufficiently often to establish a firm connexion. In some cases, all, or more than one, of the children have acne. Acne punctata is mostly accompanied with that sluggishness of temperament which some have identified with the cancerous diathesis. I have now under treatment a rare parasitic disease—pityriasis nigra—in the son of a cancerous mother. His two brothers are dead of phthisis. This form of pityriasis is most found where the springs of life are low. In some of these cases of acne the cancerous history is very striking, though the tendency or diathesis may be only betrayed by acne simplex; the same with acne rosacea. I have sometimes destroyed melænic deposits in such cases, quite ink-black. Let me here give the history of a patient who still remains under treatment. A girl, aged fifteen, of dark and muddy complexion, presents herself with acne punctata strongly marked. She is of stature inclining to be short, not wanting in the vivacity suitable to her age. I observe upon her face small moles, black or brown, on her forearms the same. She says one sister has a large dark mole on the back, another sister has such a one on the hip. This furnishes me with a clue to ask her about cancer. She replies readily, she has often heard her mother speak of it as having happened in her aunt (patient's great-aunt), who died of that disease; and her father's mother died of diseased womb. In a subsequent visit the patient showed me a large clump of warts at the back of the hand, desiring their removal. Her mother is of low stature like herself, and suffers much from rheumatism of the feet; and patient's brother has had rheumatic fever badly. In concluding, I have an observation to make as to the blow which is so often recorded as preceding or originating cancer: this sometimes precedes eczema, sometimes psoriasis,—it is really not so peculiar to cancer as one might think.

TYPHUS AT THE SEA-COAST.

By W. BEVAN LEWIS, L.R.C.P. Lond.

A BRIEF history of an outbreak of typhus which commenced at Burry Port a short time since may not be uninteresting, more especially as it tends to confirm the theory that the virus of typhus may be generated *de novo* from overcrowding and uncleanliness. The *physical* features of the neighbourhood where this outbreak occurred offer at first sight peculiar advantages in a sanitary point of view. It is a hilly rise of ground facing the sea, with a south-westerly aspect. The atmosphere is especially pure and bracing, and, were it not for the utter want of social hygiene observed by the inhabitants, it would probably be the healthiest portion of Pembrey.

From three to four dozen cottages, in clusters of two or three, are scattered at short distances apart along the hillside; and in the centre of these, midway between the summit and base of the hill, are two thatched cottages, each occupied by a collier and his family, and here it was that typhus first occurred.

The leading features of four or five of these cases may be given briefly, as it is not so much my intention to detail the daily progress of a fever unfortunately too well known as to deduce from this epidemic the useful hints which experience should teach us practically to apply.

Case 1.—A young boy, aged 13, was suddenly seized on November 21 last with rigors, intense frontal headache, pains in the back and limbs, and such prostration as indicated the advent of a serious fever. The temperature rose to 106·2°, and his case soon assumed all the well-known symptoms of typhus, the mulberry rash appearing on the 29th of the same month. For some time there was a slight amount of dyspnœa and harsh respiration; but, although suspicious of pulmonary hypostasis, physical examination failed to elicit any further evidence of such. About the middle of the second week of his attack the dyspnœa rapidly increased, and a harsh, dry cough troubled the patient. To such an extent did these symptoms proceed that on December 1 he appeared moribund. He, however, recovered by the use of gentle expectorants, combined with the application of poultices. Rusty expectoration was soon established, the rash had disappeared by December 10, and the case henceforth became one of typhous-pneumonia, of which he was convalescent by the 22nd.

Cases 2 *and* 3.—The two sons of the family residing in the adjacent house were next seized with the same symptoms. The boys were aged 13 and 4 respectively. Pulmonary complications occurred in both these cases, but, as in the former, exhibited very masked characters. Pneumonia was more plainly expressed in the case of the younger lad, and in time the temperature ran to the highest point, and defervescence was delayed a week beyond the usual period by the pulmonic lesion; when it *did* occur, it was very sudden and marked, following a prolonged and heavy sleep of fifteen hours' duration. Both are now convalescent.

Case 4.—The sister of Case 1 was, on December 24, laid up with the same affection during one of her catamenial periods. She was 18 years of age, and her symptoms from the first assumed a grave character. The temperature ranged between 105° and 107° from the fourth day of attack, and delirium of an acute and joyous character predominated; but at times she became wild and unmanageable, succeeding on one occasion in springing out of bed and crossing the room. The rash did not appear until late in the second week, and was dark and almost petechial in aspect. Prostration now was excessive, and at the beginning of the third week she lay in the state described by Jenner as coma vigil. By the 15th the temperature had fallen to 103·6°; the cerebral and pulmonary symptoms had abated; but the intellect was confused and mazy, and there was great deafness apparent.

Case 5.—A married woman, aged 33 years, was taken ill on

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January 9, and on the same day miscarried. When first seen, she was quite conscious, but utterly prostrate, with most excessive frontal headache, and a strong presentiment of approaching death. The next day she was wildly delirious, and was seized with convulsions; urine and stools passed involuntarily, the latter being extremely offensive and dark. The convulsions recurred with very short intervals for 120 hours; the delirium lapsed into a low muttering typhomania, rapidly ushering in coma and death.

In all these cases the odour peculiar to typhus was apparent, and at times very strong and offensive. The pulmonary complications were peculiarly present in every case, four suffering from pneumonic consolidation and one from bronchitis. It has been my experience, through every case of typhus fever attended here, that pulmonary complications are almost certain to occur, and from the great prevalence of these affections at the seaside, I must not overlook such a residence as an element in the causation of these complications. Such, also, has been the result in most of our cases of typhoid, but here these complications never assumed so severe a character. The true explanation is, I think, to be referred to the wretched hovels in which they live: there is generally no means of ventilation in their rooms, and the windows and doors are rarely kept open. So fearfully vitiated does the atmosphere become, that I have frequently found it a severe task to enter the rooms. To this cause I entirely attribute the chest affections observed in all my cases of continued fevers; and remembering the prevalence of all pulmonary affections along the coast-line, it is obvious that we should in all such situations *insist* upon free ventilation, and stringently forbid overcrowding of apartments. This point, I fear, is too often neglected in the rural districts, and the otherwise natural salubrity of the air around is supposed to neutralise the effects of domestic hygiene. There can be no greater fallacy than this argument, and more particularly in cases of continued fever at the seaside, where affections of the respiratory organs are so prevalent. But facts before theories would perhaps have been the more direct line of argument in this case, and I will now endeavour to supply the omission by a few statements as to three most important points in the sanitary condition of this district—viz., (1) condition of the dwellings, (2) water supply, (3) regimen.

1. *The Dwellings.*—The first four cases related occurred in two adjacent thatched cottages. In each of these there are three rooms—viz., two basement rooms and an upper bedroom or garret. The front room below and the garret above are about 1485 cubic feet in capacity; the back room is under 894 cubic feet. The latter is occupied by a large bedstead, in which the son, a lad thirteen years old, sleeps (Case 1). This is the room in which all the cooking is done, and in which the family live. The small garret contains two beds, one occupied by the father and mother, the other by the daughter (Case 4). The adjacent house is built on the same scale, but the family here reside in the front room, which is more airy. The bedroom above stairs is occupied by the father, mother, and two sons (Cases 2 and 3). Complete isolation of the respective families would be therefore impossible. I do not specify this dwelling-place as an exception, but far otherwise, for there are great numbers of cottages around here still worse off for ventilation. The quantity of epithelia and other organic impurities floating in the atmosphere of these rooms, as brought upon a microscope slide by an aspirator, is really prodigious. I have frequently heard it stated that thatched cottages are very healthy residences, but even when well ventilated my experience has taught me the contrary.

2. *Water Supply.*—The neighbourhood immediately attacked by typhus is wholly supplied with water from a spring close by. A large stream of water arising from the drainage of the surface soil on the summit of the hill, after passing through a farmyard and receiving its drains, comes rushing down precipitously alongside of the spring alluded to. This water is notoriously impure, and the inhabitants of the cottages around wash all their clothing and utensils in it; not only so, but a few months back a dozen or more pigs were killed and washed in its water. Now, there is no doubt that the spring, originally supplying good pure water, has become contaminated from this torrent. I find that the well was sunk lower in the latter part of the summer, and the rock around was undoubtedly split into the torrent's bed, as it is stated that the [illegible]-water almost immediately rose to the level of the former. [illegible]ical and microscopic examination reveals much organic [illegible]ty, but a detailed analysis I have not yet had leisure to make. This, then, is the water supply of the infected neighbourhood.

3. *Regimen.*—This is of the plainest, coarsest description, and large quantities of pork, bacon, and malt liquors are consumed. I more particularly touch on this subject in order to refer to Case 5. This, the only fatal case I have had at present, gave me a marked but sad example of the effect of deprivation from good wholesome food. The patient was long known to stint herself greatly in the ordinary necessaries of life, and the filthiness of the dwelling was quite a byword with her neighbours. Such a den as her house was a ready nidus for typhus.

Remarks.—In conclusion I may observe that the hints which I have derived from this slight outbreak would be the observance of the following rules:—1. Let free ventilation, and the means of adopting it, be stringently enforced in these dwelling-houses. 2. That communication between the cottages by the partition-wall should be considered a great fallacy. 3. That the water supply be frequently tested to insure freedom from contamination of organic matters, which may arise so often without suspicion as to its origin. 4. That as residence at the seaside predisposes to increase the rate of pulmonary diseases, so hygienic measures should be stringently enforced in such situations.

Burry Port, Pembrey, South Wales.

REPORTS OF HOSPITAL PRACTICE IN MEDICINE AND SURGERY.

BIRMINGHAM GENERAL HOSPITAL.

LARGE CANCEROUS TUMOUR OF THE BRAIN, IN A CASE OF INTRA-THORACIC CANCER—UNILATERAL EPILEPSY, FOLLOWED BY TEMPORARY HEMIPLEGIA—ABSENCE OF VOMITING AND OF IMPORTANT HEADACHE.

(Under the care of Dr. RUSSELL.)

It may hardly appear worth while to add a record of the following case to the far more illustrative examples of cerebral tumour now being published in this journal by Dr. Hughlings-Jackson, but for the fact that some peculiarity may belong to each of a set of cases of the same disease, which may be added to the common stock.

Any interest presented by my present case is connected with the question of diagnosis, and has reference to the double point of the presence of an adventitious product within the cranium, and of the nature of such product.

When a patient, who is suspected of suffering from a tumour within the cranium, has persistent pleurisy, it is well to bear in mind the known habit of intra-thoracic cancer to commence outside the lung, and especially about its root, and to direct careful attention to the cause of the pleurisy, with the possibility of finding an explanation in the presence of some morbid growth which interferes with the pulmonary plexus of nerves. Should such a growth be discovered, the suspicion formed that the cerebral symptoms resulted from a foreign growth would be strengthened; or in the event of the presence of such a growth having been already established, we should feel a considerable amount of confidence in predicting the exact nature of the growth in question.

It will be seen that my patient gave a history of pleurisy very soon after the occurrence of his first fit; and that on the occasion of his second admission to the hospital, intra-thoracic cancer had made great advance. But with regard to the actual presence of a tumour within the cranium, circumstances did not justify a positive opinion, how strong soever might be my suspicion upon the subject; for although fits of unilateral epilepsy followed by temporary hemiplegia were present, commencing in the tongue and cheek (as ably described by Dr. Jackson), I had none of the three symptoms specially noted by that observer as being diagnostic of an adventitious growth within the skull. There had never been any vomiting nor any headache of importance. Five months after the occurrence of the first epileptic fit, Mr. Priestley Smith ascertained that optic neuritis was entirely absent; but unfortunately I had no means of obtaining further information on this part of the subject during the six months which remained of the patient's life.

R. A., aged 29, was admitted into the hospital on October 16,

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1873. He had his first fit in the preceding May or June; it was single. Three weeks afterwards, whilst hawking goods about the country, he was taken with pleurisy at Swansea; and subsequently, whilst at Liverpool, the pain in the side became so severe that he returned to Birmingham, and was a patient at the General Dispensary, where he was under the care of Mr. Ward. The second fit took place at the end of September, three weeks before he came under my notice; it was a severe one, and was the only one in which he lost consciousness, according to his own account. Fits returned until his admission, sometimes at the rate of twenty or thirty in the day. He lost the use of his left arm early in this period. The second fit left a numbness in the left arm and in the left side and hip; he was unable to stand, and hesitated in his speech.

When we first saw him he was regaining power on the left side; but the arm was still feeble, the left angle of the mouth was defective, the tongue deviated to the left, and articulation of linguals was somewhat imperfect, and his speech had a slightly nasal intonation, though the palate appeared to be in a normal condition as regards motor power.

The first symptom in the fits was a peculiar sensation in the tongue, "as if it went round the teeth"; the entire left side of the face and the gums on that side were stiff; the angle of the mouth was violently drawn to the left, and the head was forcibly flexed in the same direction; his eyes were fixed on one object, from which he could not withdraw them; he never saw double. Mr. Ward observed twitching in the left side of the face, and in the left orbicularis palpebrarum; in the early fits he also noticed twitching of the left arm; and once or twice he observed the left leg to be slightly drawn up. The patient affirms that he never lost consciousness, excepting in the second (and most severe) fit; he heard all that went on, but was unable to speak.

There has never been vomiting, and only a little pain in the left side of the head, of which he made small complaint. Sharp pain in the left temple was the immediate sequel of the second fit. A week after he entered the hospital Mr. Priestley Smith found his optic discs healthy, except perhaps a little fulness of the retinal veins.

The patient recovered the use of his arm two days after his admission, and the fits ceased entirely. He left on November 20. Between that date and the 20th of the following February, the only noteworthy symptoms were some frontal pain of very temporary duration, and very troublesome cough. On the last-mentioned day the fits returned, and three days afterwards (on February 23) he again entered the hospital, with left hemiplegia, but without any impairment of articulation. Sensibility to contact was perfect.

The fits still affected the left side exclusively; in one which occurred at his admission the face was entirely spared, the left arm was rigid, the left leg slightly so. The paralysis disappeared in three or four days, and the fits ceased. Henceforward the account of his case belongs entirely to the history of intra-thoracic cancer, which on his readmission indicated its presence, among other signs, by a remarkably tortuous and distended condition of the right superficial epigastric vein: this vessel ascended in large coils up the abdomen and chest, disappearing between two of the upper ribs.

He died at home on April 15.

On post-mortem examination we found a large carcinomatous tumour in the brain, nearly two inches in its longest diameter, occupying the white substance of the anterior lobe of the right hemisphere; it was entirely free of the ventricle: the corpus striatum was healthy. The tumour appeared on the surface of the brain, over a space of about the size of a florin; here it involved the posterior fold of the second and the anterior fold of the third frontal convolution. In the neighbourhood of this part of the brain the convolutions were compressed. The membranes and all other parts of the brain were healthy. The unfavourable circumstances under which the post-mortem was made, at the patient's house, prevented our doing more than ascertain that the right side of the chest was filled with dense white cancerous matter, which, from the appearance of a mass excised, had surrounded the lung with a firm thick coating. The lung was closely adherent to the pericardium. The heart's tissue and that of the left lung was quite healthy. There was no cancer in the liver or spleen.

Dr. Carter, the Pathologist of the Hospital, reports on the structure of the cerebral cancer as follows:—The first sign of change around the edge of the tumour is a corpuscular proliferation in the perivascular canals; where the growth is in contact with the pia mater the same process is easily detected in the lymphatic spaces beneath that membrane. The brain around these centres is undergoing fatty change, and the vessels are plugged. The cerebral substance in the immediate neighbourhood of the growth appears simply to have wasted, giving the tumour the appearance of a foreign body pushing aside the brain-substance around it. The mass is soft and cellular, the cells being in great excess, round, and provided with a large nucleus; the stroma is very slender and scanty. A sort of secondary stroma appears to exist, formed by a network of the plugged vessels before mentioned, which have resisted the degenerative change. In the lung the morbid growth presents the ordinary characters of encephaloid cancer.

GUY'S HOSPITAL.

CASES UNDER THE CARE OF MR. COOPER FORSTER.

We have in a recent number made reference to some of the cases reported in the *Guy's Hospital Reports*. As a record of some of the practice seen in the wards of Guy's, these reports furnish much instructive and excellent material. We will now resume our notice of some other of the cases and comments contributed by Mr. Cooper Forster.

Of ten cases of *Necrosis*, one was that of a boy who suffered from rheumatic fever, followed by osteitis, which went on to necrosis. This case gives additional force to the remarks made, in a former part of Mr. Forster's paper, on the connexion between acute rheumatism and destructive joint-disease. Another, a severe case, was of a syphilitic character; this draws from Mr. Forster the remark that syphilitic necrosis of the calvarium almost invariably terminates in death, if not from pyæmia or erysipelas, then from the extensive nature of the disease: either the bone cannot be all removed, and the patient dies with lardaceous viscera, or, if it be removable, then the subsequent contraction of the cicatrix in the scalp causes death by pressure on the brain.

A case of *Fracture of the Skull* suggests some interesting observations. John S., aged 41, was struck with a swing above the right orbit. The wound bled freely. He was stunned, and walked to the hospital; when admitted he was quite sensible, but had a wound an inch long over the right side of the frontal bone. The bone was fractured and depressed a little at the outer third of orbit. The right pupil was larger than the left, but he had no paralysis. The question arose: In a man with fractured skull and depression, and without head symptoms, such as this patient, ought the depressed bone to be raised? This must depend very much upon the position of the fracture, the kind of injury, and the extent of depression of the inner plate of bone. As in the case before us the injury was at the end of the frontal sinus, and the depression did not seem to involve the inner layer; no operative interference seemed called for at the time, nor was it subsequently, though it by no means follows that at some future time the trephine may not be required to raise a piece of depressed bone on account of epilepsy or some other secondary disturbance.

In connexion with this subject, Mr. Forster discusses the question of the respective value of the symptoms usually considered characteristic of fracture of the base of the skull. They may, Mr. Forster thinks, be placed thus in their order of relative importance:—Escape of clear fluid from the ear; subconjunctival ecchymosis, if the fracture be in the orbital plate of the frontal bone; greater or less disturbance of the mental functions, generally on the side of diminution rather than excess of function; pressure symptoms, such as paralysis; bleeding from the ear; deafness.

Of these, only the first is unfailing. If there is no mistake about it, the diagnosis is certain; but care should be taken that a serous fluid is not called cerebro-spinal.

The value of any one of the others will vary according as it is very marked or is associated with one or all of the remaining symptoms.

Considering the question of fatality in fractures of the base of the cranium, it is said—A patient having all of a set of symptoms will die, one with less will get well; and between these extremes there is no mean. There is no peculiarity about the nature of the fracture, but the patients die in nine cases out of ten—firstly, because the brain is so bruised that it is incapable of keeping up the requisite functions; secondly, because inflammation extends to the membranes of the brain. It is probably quite possible to fracture the skull without

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injuring the brain, provided no great amount of concussion be imparted to that organ by the injury, just as a steam-hammer will crush a nut without injuring the kernel. Thus, the skull being alone fractured, we might expect bleeding from the ear, and even cerebro-spinal fluid, without any brain symptoms, at any rate during the early days following the injury. If after fracture of the cranial bones much new bone for repair was formed, secondary dangers from surface inflammation and surface irritation might follow: but the fact is, hardly any new bone is produced in the skull, except a slight surface bony casing along the line of fracture, and a bone cement between the two adjacent fracture-edges. If, then, we get a fracture of the base without brain-bruising, we may reasonably expect such a case to get well with no further symptoms. It is quite possible that a certain proportion of cases of hæmorrhage from the ear are of this kind.

In the treatment of these cases of fracture of the base, we ought to bear in mind the length of time the skull takes for the repair of its fractures: thus in one case there was evidence of union at one spot only, ninety-one days after a severe fracture of the base of the skull. This should lead us to be slow in departing from the low-diet treatment which should always be prescribed in such cases; and we ought to be very careful to forbid much exercise for some time after the patients are apparently quite well.

Case 49 is one of *Compound Fracture of the Olecranon, and Recovery with Movable Joint.* The treatment adopted for this injury was first a straight splint on the inner side of the arm and flexor side of the forearm, with a pad to keep the elbow slightly bent. After some few days this was changed for a rectangular front splint, which was continued for a month. Mr. Forster comments thus:—"The grave question that always arises in these cases is as to the proper position in which to fix the limb; and though perhaps for the first few days the straight position of the limb is the more comfortable, the future usefulness of the member is the great object to be kept in view, and for this purpose the flexed position is certainly the most useful. Despite, therefore, of any extra pain, swelling, or inconvenience, this one object should be kept steadily in view, and if necessary chloroform should be employed so as to get the elbow to a right angle." This plan was adopted within a week of the man's admission into the hospital, and when repair had taken place a fair amount of movement was the result.

Case 53.—Elephantiasis Arabum of Right Leg—Suppuration—Incisions—Amputation through lower third of Thigh.—A grocer, fifty-three years of age, who had always enjoyed good health, noticed, about twelve years before admission, a solid red spot on the front of the right leg, just above the ankle; this soon became painful and spread upwards. The leg swelled, though the foot did not; it varied slightly from time to time, but never became normal. There were no enlarged veins. Two years ago, while walking, bleeding commenced from near the original spot. Since then the foot and leg had become more swollen, and from the fissures a brown watery offensive discharge had issued. During the two weeks before admission the parts had become dry and scaly. On admission the right leg was swollen from the knee to the toes; the skin was thickened, brownish-red, and at parts scaly, at others red and tuberculated; the foot was tender; the glands indurated in the right groin and slightly in the left, but not in the axillæ or neck. The leg was raised on a splint. Blistering fluid was applied to the thickened parts on the outer and upper parts. A month later an abscess formed on the front of the leg. Nearly three months after admission, amputation was performed at the lower third of the thigh. Mr. Forster remarks: "The propriety of amputation through the thigh for elephantiasis will doubtless be questioned; but it will be seen from a careful perusal of the case that, for more than two years previously, blistering and other plans of treatment were tried without success, and amputation seemed to afford the only prospect of a speedy relief of his trouble."

SINCE the notice which appeared in this journal last week, respecting the chairmanship of the annual festival of the Fellows of the College of Surgeons, Mr. Quain, who had accepted the office, has found it necessary to relinquish the honour. Professor Erasmus Wilson, F.R.S., has therefore consented to act, and we will venture to predict a good list of stewards to support him, and a large number of metropolitan and provincial Fellows on Thursday, July 3, the day for the annual election of Fellows into the Council.

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Medical Times and Gazette.

SATURDAY, MAY 16, 1874.

IMPROVED DWELLINGS FOR THE POOR.

WE hope that we are not over-sanguine and credulous in thinking that May the 8th of this present year of grace will be a marked date in the history of the sanitary and social improvement of this huge and ever-growing metropolis of England. Parliamentary promise and Parliamentary performance are, indeed, but too often wofully different things, and disappointment, postponement, and delay constantly await the earnest sanitary reformer, and all other enthusiasts; nevertheless, we think that the discussion in the House of Commons on Mr. Kay-Shuttleworth's motion does hold out something more than even a fair promise that real and solid action will during the present Parliament be taken by the Government for helping forward the improvement of the dwellings of the working classes.

Mr. Kay-Shuttleworth moved the House to resolve—"That in the opinion of this House a necessity exists for some measure that will provide for the improvement of the poorest classes of dwellings in London, and that this question demands the early attention of her Majesty's Government"; and in his very temperate but telling speech he showed the great and urgent need for improvement in the dwellings of the working classes in London, and the special necessity there is for help from the Legislature in order to effectually carry out such improvements. Hon. members were no doubt, he supposed, not quite unacquainted with the fact that in St. Giles's and the neighbourhood of Lincoln's-inn there are "many places which they would not like to live in"; but they had no conception of the squalor and wretchedness of some places in the immediate neighbourhood of the Palace of Westminster, and he therefore described the houses and courts that are to be found in

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Bedfordbury. "Among the places he saw there were a great many very narrow courts, approached by tunnels under houses, in which there could not be the slightest ventilation. In many instances houses were built back to back, or else with a small space between their backs, which was filled with the most disgusting matters, which contaminated the air. The fronts of other houses looked upon the backs of their neighbours' dwellings, and upon the sanitary arrangements which were situated there. He had seen in Bedfordbury numbers of houses which were built entirely of wood, and in Drury-lane numbers built simply of lath and plaster, and consequently liable to be rapidly consumed by fire. Such houses were of great antiquity, and were erected long before any Building Act had been passed or sanitary arrangements were thought of." These places, and others of course as bad in Whitechapel and elsewhere, he spoke of as places covered by unimprovable houses, but at the same time as "areas available as sites for the building of improved dwellings for the working classes"; and he instanced also many large spaces lying waste in different parts of London for the want of powers to purchase them for building purposes, and which can only be purchased under compulsory powers. He showed also that there is a large demand for these sites. He had been informed by the surveyor of the Peabody Trustees, "that out of a total of £578,000, the Peabody Trustees still had £278,000 available for building, if they could only get proper sites. His hon. friend (Sir S. Waterlow) informed him that his Company had refused money which they would be glad to put to use if they could get sites. That was the great difficulty. There were sites in abundance, and there was plenty of demand for them; the question was how to bring the demand to touch the supply." But so many difficulties stand in the way at present, so many different interests are concerned, that without compulsory powers these sites cannot be obtained, except at a cost that would make it impossible to build dwelling-houses on them profitably. And while hardly a session passes in which these compulsory powers are not granted to railway companies, and for street improvements, "why should they be withheld when a measure of much greater national importance—the improvement of the condition of the working-classes—is in question?" He suggested that such powers should be placed in the hands of public bodies, as the Metropolitan Board of Works and the Corporation of the City of London, and affirmed that one evil of the present state of things is that "medical officers are also restrained by the knowledge that if property were condemned there was no prospect of reconstruction, and reconstruction was often impracticable without the acquisition of property adjoining that which was condemned, but which was quite fit for human habitation."

Mr. Kay-Shuttleworth was ably supported by Sir Sydney Waterlow, who told the House that "in very few cases had the building companies been able to purchase and remove the houses which were unfit for human habitation. As a rule, there was such a variety of interests in this kind of property, that it was impossible to clear any large site without compulsory powers, which, in his judgment, ought to be exercised only by a public authority. The philanthropic societies had, in fact, been working with their hands tied, and the wretched houses, unfit for human habitation, remained as nests of fever and pestilence—foul blots on the face of our great metropolis, doubling the rate of sickness and death among the occupants, and spreading contagion throughout the immediate neighbourhood."

Several other members, as Mr. Forster, Mr. Hubbard, and Mr. M'Cullagh Torrens, also warmly supported the motion, using arguments that have frequently been employed in these pages, and acknowledging the comparative uselessness of measures for education and instruction, and Acts to restrain and prevent drunkenness and other vices, so long as the poor are "huddled together like brutes." The unanimity that prevailed on the subject was indeed remarkable; and the "inexorable logic of facts" convinced even the *Times*, which declared, next day, that "various circumstances have rendered the problem ripe for solution," and that the opportunity has come, and also the men—the men of the present Government. "We grant railways," it said, "compulsory powers to acquire land because they could not otherwise carry out enterprises which are beneficial to the whole country. Public health and morality, however, are at least equally essential to the general welfare; and if, as appears plain, these cannot be effectually promoted by private exertions, it becomes imperative for the Government to step in." It is true that Mr. Kay-Shuttleworth withdrew his motion; and that after a few hours' more reflection our great contemporary cooled down, and spoke, or seemed to speak, with a different voice. On Monday this week, the *Times* declared that "a great evil had been permitted to grow to dimensions beyond reach of cure or mitigation," and that the human "rookeries" have multiplied, increased, spread, and thickened; while it seemed to flout the idea of the Legislature stepping forward to the rescue. "As for Parliament buying sites," it then said, "or, what is much the same thing, empowering the City of London and the Metropolitan Board to take sites at discretion, and grant them to companies in order to the building, selling, and letting of houses, flats, or rooms for the poor, the difficulties certain to arise in the working are such that the scheme would take generations to elaborate"; and it affirmed that the matter is one "to be left to that private enterprise and those private motives which are the mainspring of English Society." But, happily, we do not depend on the varying utterances of the *Times*; and Mr. Kay-Shuttleworth only withdrew his motion because of the highly satisfactory tone in which Mr. Cross, the Home Secretary, spoke, and his statement of the intentions of Government regarding the subject. Mr. Cross said that "no one question out of the whole range of those which were likely to come before the House was nearer or dearer to his heart." He acknowledged that "the most effectual way to put down drunkenness was to improve the homes of the poor," and said that as to any apprehended increase of the rates by the measure suggested, "there might be a small rate imposed for erecting these buildings, but a much larger amount might be saved in the case of gaols, lunatic asylums, and hospitals, for any large operation of this kind would so materially improve the condition of the people, that in the long run (he did not say immediately) the rates ought to be reduced rather than increased." And he finally assured the House that the subject was engaging the serious attention of the Government, and "the moment they could do so they would introduce a measure with the full intention of carrying it, with the view of securing to the people of the metropolis dwellings equal to those in other parts of the country, in which they could grow up, not slaves, but really men and women, in the enjoyment of happiness and comfort." Add to all this that the *Times* observes that Mr. Disraeli "deserves more credit than he has always received for the consistency with which, since the days when he depicted in 'Sybil' the unwholesome life of factory hands, he has kept in view the urgent necessity of improving the sanitary condition of working people"; while Mr. M'Cullagh Torrens acknowledged with gratitude the "unsleeping sympathy and the untiring aid" he had received from the Premier in passing his Bill for the improvement of the dwellings of the poor; and we hold that there is solid reason for believing, as the *Times* did, ere the first effects of the debate on Mr. Kay-Shuttleworth's motion had faded from its mind, that the assurance given by the Home Secretary "holds out a new hope to the working people of London, and will rejoice the hearts of numbers who for years have been labouring, almost in despair, for their physical and moral improvement."

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VIVISECTION.

For some time past the righteous soul of our contemporary the *Spectator* has been vexed by the practices of some physiological investigators, which it is pleased to describe as vivisection. The sympathies of our contemporary are always peculiar, and are notoriously on the side of any grand idea—such as civilisation, Red Republicanism, or anything of that kind,—as opposed to the general welfare of humanity. The editor, Mr. Hutton, after trying to do his best to injure certain worthy gentlemen, whom he singled out by name as being guilty of vivisection, has now, through the Convocation of the University of London, attacked an institution which is likely to prove, from the researches conducted in it, a great boon to mankind. The Brown Institution is under the control of the Senate of the University of London, and accordingly, through Convocation, Mr. Hutton would invoke the Senate "not to allow painful experiments on living animals when not intended to be medical or curative." It is needless for us to point out the exceedingly vague character of this resolution. About the word "curative" there can be no doubt, but how the word "medical" is to be taken it would be hard to say. From what we know of Mr. Hutton, we should be inclined to take it as exactly synonymous, from his point of view, with curative, but it is possible that he may intend it to include experiments undertaken for strictly medical as opposed to physiological purposes. It is difficult to argue with a man who clearly does not understand what he is talking about; and it seems to us that those who have been recently writing against what they call vivisection are in the latter position.

Physiological experiments are of various kinds. Some are prompted by a purely scientific spirit, a desire of knowledge as to the modes and processes of animal life; others are undertaken for the purpose of verifying results already obtained, for such is the complexity of all problems relating to life, that many investigations and many investigators are necessary before a fact can be pronounced as well ascertained. Other experiments still are made, purely as a means of demonstrating to a class of students certain of the phenomena of animal life. Now, some of these experiments do more or less interfere with the animal's comfort; some imply cutting, some do not; some are perfectly justifiable, some are not. When, some years ago, there arose an outcry for more practical teaching in physiology, there were men who insisted that each student should be taught how to experiment on living animals. To that we were and are distinctly opposed, and it is to our minds a question how far certain experiments even in demonstrations are justifiable; but here we draw the line. Experiments made by properly instructed investigators for purely scientific purposes are, as it seems to us, clearly justifiable on the ground that we never know what valuable applications may not spring out of their purely scientific researches. It is a notorious fact that many researches which have commenced as pure science have turned out to be of the greatest value when applied to the wants of mankind. And so of physiological research of this kind; we never know what it may lead to, but we do know this: that without it medicine would have no sound scientific basis.

Such experiments we can justify on exactly the same ground as we justify the slaughter of animals for food. Neither is absolutely necessary for the preservation of human life, but both add materially to our means of preserving it when threatened in various ways. It is a fact that the greater number of physiological experiments require to be conducted under the influence of anæsthetics to insure success. Those, for instance, made by Majendie and Orfila are now quite useless. Moreover, when we come to experiment on animals such as frogs (and these are the chief subjects of experiment), it is exceedingly difficult to say what are manifestations of pain and what are not. Most people would admit that a frog with its head cut off could hardly be a very sensitive being, yet its behaviour under such conditions is very similar to its behaviour whilst yet its head is attached to its body. Unnecessary cruelty is a detestable thing; but there is such a thing as a wise cruelty, which tends to a higher good.

MEDICAL WITNESSES AT POLICE-COURTS.

Nothing can be more unsatisfactory and anomalous than the position of a medical witness in his relation to the police-court. He is liable to be summoned, and is bound to attend in cases, however trivial, in which his professional services have been rendered. This summons or subpœna is usually, at least in the metropolis, accompanied with a fee of 1s., or with nothing. Should the magistrate adjudicate summarily upon the case, the medical witness, as a rule, receives nothing for his attendance and the evidence which he gives. Even if the case be adjourned, and not sent for trial, he obtains no remuneration for such additional attendance. Should the case, however, be sent for trial the magistrate is empowered, but not compelled, to give him a certificate for his attendance or attendances; and he then receives remuneration at the rate of 10s. 6d. a day. Those who recollect the annoyance and trouble to which medical practitioners were subjected before the passing of the Medical Witnesses Act can bear testimony to the value of that statute. Now, in point of law, is the medical practitioner compelled to give medical evidence before a police-magistrate without having received a proper fee with his subpœna? A case has occurred within the last few days, which, if the ruling of the stipendiary magistrates be correct, would appear to settle this very important question. A woman had obtained a summons at the Cardiff Police-court against her husband for assault, and had subpœnaed Dr. Buist of that town to give evidence on her behalf. When called forward as a witness, Dr. Buist, addressing the magistrate, said he regarded it as incumbent upon him to appear at the court in compliance with the summons he had received, but at the same time he felt compelled to inquire, as a matter of duty, who would remunerate him for the trouble and inconvenience to which he had been subjected. He made this interrogation from principle, because he felt that it was unjust alike to the profession and the public generally to summon medical men on trivial cases of this description, thereby putting them to great inconvenience and discomfort, and risking the welfare of their patients. On several previous occasions he had attended at that court to give evidence, sometimes at great personal inconvenience and trouble; but in no instance did he receive any remuneration. Under these circumstances he felt an obligation resting upon him to inquire who was responsible in the matter. The magistrate expressed himself as perfectly satisfied with the position taken up by Dr. Buist, and made an inquiry of the solicitors engaged in the case as to who summoned the doctor. It transpired that the solicitor for the complainant issued the subpœna, and Dr. Buist added that the summons was accompanied with one shilling as service money, and as he was away from home at the time he had had no opportunity of accepting or rejecting the money. Mr. Jones expressed his emphatic opinion that Dr. Buist should receive 10s. 6d., and said that if the solicitors were prepared to give him that amount he would take his evidence, and if not, he should refuse to call upon the Doctor as a witness. The attorney appeared to hesitate, and Dr. Buist then left the court, the magistrate, at the same time, expressing great regret that the Doctor had been put to such trouble in the matter, and advising him not to comply with the summons in any similar case, unless it was accompanied with the proper fee. Whilst agreeing with the perfect equity of the decision of Mr. Jones

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we are unacquainted with any statute which gives it the force of law. A police magistrate of the present day, like a coroner before the passing of the Medical Witnesses Act, has no fund from which to remunerate a medical witness for attendance and giving evidence before him. It is possible that the question may not by the above decision be finally settled, but it is to be hoped that if it is not so, a "case" may be granted on some future occasion in order that the opinion of the judges may be obtained on the matter. Should this opinion be adverse to the medical witnesses, we must then appeal to the Legislature for redress from a grievance which presses heavily upon us.

THE WATERS OF ST. GALMIER AND COUZAN.

We have recently had submitted to our notice by MM. E. Gallais and Co., of Margaret-street, Cavendish-square, some samples of mineral waters, which it seems to us are exceedingly well worth the notice of the public. The use of natural mineral waters for table purposes is rapidly spreading, both at home and abroad. Nothing has, perhaps, done more to promote this than a knowledge that our ordinary sources of water supply are liable to be tainted with sewer-gas, decomposing matter of various kinds, and with even more objectionable substances in the shape of fever-germs. Abroad, the demand for such waters has arisen from other causes, at least in some parts. In Holland, for instance, the water is generally bad; and there "still" seltzer is the common drink. In this country, when a judicious physician wants his patient to drink largely of pure water, he tells him to get a pure aërated water, as we remember hearing Dr. Sibson well point out. But the aërated waters as commonly obtained in this country are very often impure, not only with what must be a necessary impurity—except great care be taken in the manufacture of the gas employed for aërating the water,—but from even grosser impurities in the cisterns employed in storing the water before use. Here in England the artificial effervescent waters are almost invariably made from carbonic acid gas, produced by the action of sulphuric acid gas on chalk. This chalk often contains impurities, which at least retain a trace of their organic nature, and so the gas is liable to be tainted. This, no doubt, helps to account for the disagreeable flavour of many of the specimens of soda-water manufactured by small firms. True, one can always obtain good sound soda-water by asking for certain special brands, if we may say so; but too often the so-called soda-water is stuff that, if kept for a short time, actually stinks.

The attempts, therefore, which have recently been made to introduce foreign mineral waters into this country as a regular table beverage, deserve every encouragement. Some we have had from German sources; these we now refer to are from the valley of the Loire. In both situations, when the waters are carbonated, the gas issuing from the spring is utilised. As the springs come up through the rock it is easy to divert them into air-tight channels, and then by means of an air-pump, whether directly, or indirectly through the medium of a vacuum thus formed, the gas issuing from the spring can be used for super-saturating its waters. Moreover, the water so operated on is, as a rule, derived from a source not liable to organic contamination any more than is the gas derived from it, and in this way we can be sure of obtaining a water containing various kinds of saline ingredients, and hence possessing various qualities, but at the same time certainly deficient in those organic matters which are so objectionable.

The waters we have now under consideration are two, viz., those of Couzan and St. Galmier, of which the former seems to us the nicer of the two. It has a more distinctive flavour than St. Galmier, which seems in many respects to approximate in character to ordinary sparkling seltzer; Couzan rather resembles still seltzer which has been extra aërated. Both are exceedingly pleasant table waters. In France alone, more than five millions of bottles of them are annually consumed. Moreover, they possess the great merit of cheapness. For an ordinary bottle of soda or seltzer we pay fourpence, and if from a good firm like Schweppe's, sixpence. Each bottle of the water of which we are now treating contains nearly three times as much as the ordinary artificial mineral water bottles, and the price is only fivepence. We certainly recommend our readers to try them. We ought to say that some of them can be had sweetened and flavoured so as to constitute a lemonade.

THE WEEK.

TOPICS OF THE DAY.

Dr. Whitmore, the analyst for Marylebone, observes in his last report that the Adulteration Act, since it had been in operation, had been productive of undoubted benefit to the public; but as the race of fraudulent tradesmen was not yet extinct, the activity and vigilance of those to whom the carrying out of the Act was entrusted was still necessary.

In consequence of the exposures which have recently taken place respecting the indecencies and difficulties which have arisen from the want of mortuaries in certain metropolitan parishes, the vestries of Clerkenwell and Holborn have decided to erect these necessary receptacles for the dead and for the performance of post-mortem examinations. It cannot be long before the absence of a mortuary in a parish will become a public scandal and disgrace.

Our contemporary the *Morning Post* states that Lady Smith (widow of the late Sir Edward Smith, President of the Linnæan Society, who was knighted in 1814 by George IV.) reached the age of 101 at Lowestoft on the 11th inst.

The Convocation of the University of London passed on Wednesday last, by a majority of 81 to 65, the following resolution:—"That in the opinion of Convocation it is desirable that women should be permitted to take degrees in the University of London."

There will be a smart competition for the post of Resident Medical Officer at University College Hospital. We believe that several gentlemen have already signified their intention of competing.

Lord Bessborough, chairman of the Weekly Board of St. George's Hospital, writes to the *Times* to allay a panic which seems to have arisen with regard to the closing of St. George's Hospital. He says:—

"The Hospital is to be thoroughly repaired and painted, and this will occupy the time until the month of August, after which glazed drain-pipes are to be substituted for the present brick drains, which will be at once thoroughly flushed and remain unused for two months previous to the commencement of the drainage works. But, so far from this being done during the height of the London season, this portion of the work will not be commenced until August, and then it will be entirely confined within the boundaries of the Hospital, nor will it necessitate any opening of the external drains. The reasons which induced the Board to select the next three months for the work were—1. The more rapid completion of the work on account of the length of the days, and, consequently, the saving of cost and earlier admission of patients; and 2. Because these are the months in which there is usually less sickness, and therefore fewer demands for beds."

It has been recommended by the Council of the Aberdeen University to increase the number of medical bursaries, and to institute a chair of pathology.

It has been decided to appoint an acting ophthalmic surgeon at the Queen's Hospital, Birmingham.

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Miss Jacobs, the first woman-doctor in Holland, has just passed her examination. She obtained her diploma at Gröningen.

DISTRIBUTION OF PRIZES AT KING'S COLLEGE BY PROFESSOR OWEN.

On Tuesday, the 12th inst., Professor Owen, F.R.S., D.C.L., distributed the prizes and certificates of honour awarded to the students in the medical department of King's College, for the winter session of 1873-74. Sir William Fergusson, Sir A. Wilbraham, Sir C. Daubeney, Dr. Vaughan, Dr. Arthur Farre, Professor Wood, and a large number of ladies were among those present. After the presentation of the scholars by the Rev. Canon Barry, Principal of the College, and the distribution of the Divinity prizes, Professor Bentley, the Dean of Faculty, gave an encouraging account of the state of the medical school, and then Professor Owen distributed the prizes and certificates of honour in the various classes. At the conclusion of this ceremony, Professor Owen addressed the company, assuring them of the pleasure with which he had performed the duty that had been assigned to him on that occasion—a pleasure that was enhanced by the proof that had been afforded, that King's College was losing in no degree its reputation, but was rather continuing to expand and increase it. King's College had a great reputation in those sciences to which he had more especially devoted himself, and it had had a succession of the most eminent men. To the students he would say, after an experience of a somewhat long life devoted to the acquisition of knowledge, that they should be on their guard against mistaking generic names, which signified groups of ideas, for positive entities. If the study of the science of medicine was to progress, it must depend upon a clear and right understanding of what it now was. They must not only be able to define the groups of symptoms, but to apply the remedy for each specific disease; and when they were able to do that, then it might be said that they had attained a good scientific position. But there was one thing more required to make medicine truly scientific, and that was to ascertain the causes of the symptoms. He concluded by some remarks on the phase which his own special science, that of biology, had at present assumed. On the motion of the Rev. Dr. Currey, seconded by the Rev. Canon Barry, a cordial vote of thanks was passed to Professor Owen for presiding, and the proceedings terminated.

PROPOSED ADMISSION OF WOMEN TO THE DEGREES OF THE UNIVERSITY OF LONDON.

At the annual Convocation of the University of London, held in the University theatre on the 12th inst., the motion in favour of the admission of women to degrees in the University was carried by a majority of eighty-three to sixty-five votes, after a prolonged and warm debate. Mr. Fitch, Mr. Elliott, Mr. Hensman, and others spoke in favour of the motion; and Mr. Goldsmid, M.P., Mr. Crick, Mr. Lawson, Dr. Quain, and others against it. Dr. Quain especially opposed the motion in a speech of some length, in which he pointed out that women are physically unable to compete with men, and insisted upon the unfairness of examining, side by side with young men, girls heavily handicapped by naturally recurring periods of bodily and mental weakness. He also argued that women are naturally unfitted for a professional life, and drew an amusing picture of a female medical practitioner labouring under an awkward and unseasonable burden as a mother. It is almost unnecessary to add that the vote of Tuesday cannot be considered as representing the view of the majority of the members of the University of London on the desirability of admitting women to degrees. The meeting of Convocation, although larger than usual on account of the powerful efforts of the women's supporters, did not constitute much more than a tenth of the whole number of members. Of those who voted for the motion, only a few belonged to our own profession. There seems to be no reason to expect that the Senate will consider themselves bound seriously to entertain the question.

YELLOW FEVER IN ELEVATED DISTRICTS.

Dr. Toner, President of the American Medical Association, Washington, has contributed a paper on the distribution of yellow fever, which is published in a report issued by Dr. Woodworth, Supervising Surgeon of the United States Marine Hospital Service. Dr. Toner quotes authorities which show that this disease has never been known in any climate at an elevation of 2500 feet. Mount Desmoulin, near Rousseau, in the Island of Dominica, 1500 feet above the sea, is always free from fever, even when it is epidemic at the water-line. The same exemption is observed in the northern and elevated parts of San Domingo, whatever may be the character of the soil. Fort Smith, in Arkansas, 460 feet above the sea, is the highest point at which this fever has prevailed as an epidemic in the United States. Although Winchester, Virginia, at an altitude of 700 feet, is reported to have been visited by this disease in 1802, the cases recorded are not well authenticated. The late Dr. La Roche noticed that a stranger might live securely in the near vicinity of the epidemic, provided he did not actually enter the infected district. It is clear that the disease has, in the United States, never in an epidemic form reached an elevation of 500 feet; and if such a fact can be depended upon, it suggests a remedy for this deadly scourge, by the removal of all susceptible persons out of the range affected, to a considerable elevation, where the formation of the neighbouring locality renders such a course practicable. It must not be overlooked, however, that Humboldt fixed the elevation above which yellow fever could not exist at 3000 feet above the level of the sea; and it is on record that upon three several occasions it has been imported into the mountain military station of Newcastle, in Jamaica; so that although the risk at elevated stations in the yellow fever zone is not so great as at the sea-level, it would, we think, be dangerous to assert that they enjoy a perfect immunity from the disease.

ACCEPTANCE OF THE CERTIFICATE OF THE SCHOOLS EXAMINATIONS IN PLACE OF THE PREVIOUS EXAMINATION AT CAMBRIDGE.

The Universities of Oxford and Cambridge have, as our readers may know, combined to institute examinations for certain schools, and to grant certificates with or without distinction to the lads who pass in these examinations, which, as may be seen from the regulations, will be of a very thorough kind. Recently the Senate of the University of Cambridge has determined to accept these certificates in place of the "previous examination," so that the lad who has shown such proficiency in classics and mathematics as to obtain a certificate at the school examination may at once devote himself to higher study or to a new study. The advantage of this to the student of medicine and natural science is obvious, forasmuch as immediately upon his entrance at the University, and during the whole time there, he will be able to devote himself uninterruptedly to these subjects, and so to make greater progress in them at an earlier period of life than has hitherto been possible. It will have the further advantage of inducing him to master his school subjects earlier and better, in order that he may be free to take advantage of the University courses of natural science and medicine as soon as he goes up to Cambridge. There will be an examination at Cambridge in June, open to lads from all schools. Information may be obtained from J. S. Reid, Esq., Christ's College, Cambridge, and A. Robinson, Esq., New College, Oxford; and the "Regulations of the Oxford and Cambridge Schools Examination Board" may be had at any bookseller's for a shilling.

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HEALTH AND MORTALITY OF BIRMINGHAM.

STATEMENTS having for some time past been made as to the unhealthiness of Birmingham, Dr. Alfred Hill, the Medical Officer of Health, in his report for 1873, discusses the subject. He quotes the following statistics from the Registrar-General's Returns, which give 24·8 as the death-rate for the ten years 1861-70, which is identical with that of the single year 1873, and that the town has not sunk from a high to a low position in the scale of public health among the principal large towns. The following comparative statement, derived from the same source, gives a complete proof:—The annual death-rate per 1000 persons living in 1873, averaged in eighteen large towns, 24·05; London, 22·45; Norwich, 21·57; Birmingham, 24·8; Liverpool, 25·9; Manchester, 30·17; Leeds, 27·55; and Newcastle, 29·9. It will thus be seen that Birmingham compares favourably with the other large manufacturing towns. Small-pox held a prominent place among the zymotic diseases prevailing in the borough, though to a less extent than during the year 1872. The percentage of deaths to cases was 11·36 in the vaccinated, and 51·28 in the unvaccinated. It should be always recollected, with reference to Birmingham, that in the epidemics of cholera the mortality arising therefrom was less than in any town of the same population in the kingdom. Dr. Hill concludes a very able report and says—"It is satisfactory to know that the work of the year, in pursuance of the provisions of the Adulteration Act, has done much good in causing certain tradesmen to be more careful as to the quality of the goods in which they deal. I have had many proofs of this during the year, both verbal and material."

GAS AT THE HANWELL ASYLUM.

THE Committee of Visitors at the Hanwell County Asylum are to be congratulated on the fact that they manufacture their own gas, by which they are able to produce gas at about half the cost that the London consumer is expected to pay. During last year 8,077,560 cubic feet of gas were consumed in the establishment, at a total cost of £969 0s. 1d., or 2s. 4¾d. per 1000 cubic feet. This sum includes every expense, such as wages, repair, and maintenance of works, etc., the interest on the capital originally spent only being excepted. Surely if private manufacturers can produce gas on a small scale at a cost of less than 2s. 6d. per 1000 cubic feet, it cannot be necessary for the gas companies to charge 4s. 9d. per 1000 cubic feet in order to gain a fair profit.

VIEWING THE BODY.

A JUROR inquired of Dr. Lankester, at an inquest held on Tuesday, why the jury had been called to view the body, because all they saw of it was its face, and he thought it a mere matter of superfluous formality unless they saw the body perfectly. The Coroner, in reply, said they must go back to the time of Alfred to ascertain that. If he could have his will there should not be an inquest held without a post-mortem examination, although he was always abused when he sent in his bills on account of the expenses incurred thereby. The jury had an undoubted right to see the whole of the body, but it was only in suspicious cases that he thought it was necessary.

THE BIENNIAL FESTIVAL OF THE HOSPITAL FOR DISEASES OF THE THROAT.

ON Wednesday evening a large and brilliant assembly of ladies and gentlemen sat down to dinner at Willis's Rooms, to celebrate the biennial festival of the Hospital for Diseases of the Throat. The chair was taken—in the absence of Lord Cowper, the President of the institution—by Colonel Feilding, and the proceedings were enlivened by some admirable music under the direction of Herr Wilhelm Ganz. The custom of introducing ladies at these festivals has now been adopted by various institutions, and no doubt contributes materially to the success of such meetings. The Hospital for Diseases of the Throat is one which has been violently attacked as a very bad example of specialism, but this must be said for it: that it constitutes an admirable school for learning laryngoscopy, and it is one of the first sought after by foreign visitors.

THE ROYAL NATIONAL HOSPITAL FOR CONSUMPTION, VENTNOR.

THE biennial festival of this Hospital was held on Wednesday evening, April 29, at Willis's Rooms; the Bishop of Winchester in the chair. Upwards of 150 guests, ladies and gentlemen, sat down to dinner. The buildings have been constructed in eight blocks of two houses each, the chief features being that each patient is provided with a separate sleeping apartment, and that all the rooms occupied by the patients face the south; by this arrangement they obtain the full benefit of the climate, with all the advantages of a hospital combined with all the comforts and conveniences of a home. Through the munificence of the Baroness Meyer de Rothschild, the Committee have just been enabled to give the order for the erection of the last block of houses, thus completing the original design of the founder; that lady having undertaken to bear the cost of the erection of the last house, which is to bear the name of the late lamented Baron Meyer de Rothschild. During the past year 200 men and women have received the benefits of the Hospital as in-patients. The contributions announced during the evening amounted to £5000, which includes the cost of erecting the Baron Meyer de Rothschild's Hospital.

DEVON AND EXETER MEDICO-CHIRURGICAL SOCIETY.

THE members of this Society held a *conversazione* at the Exeter Hospital, on Monday, to which more than three hundred were invited. Many of the principal firms in London, Birmingham, Bristol, and Exeter sent collections of instruments, etc., and afforded an unusually good opportunity for the numerous country practitioners present to see all the recent inventions and improvements. The rooms were beautifully decorated with flowers and plants lent by Dr. Woodman, of Alphington, and altogether the experiment was most successful.

CONJOINT SANITARY LEGISLATION COMMITTEE FOR IRELAND.

WE have already mentioned the formation of this Committee for the purpose of watching the progress of sanitary legislation. We are now enabled to give the names of the members of the Committee, and of the bodies they represent. *Dublin Sanitary Association:* George R. Price, barrister-at-law, and Robert O'B. Furlong, barrister-at-law. *King and Queen's College of Physicians:* Thos. W. Grimshaw, M.D., and J. W. Moore, M.D., Diplomates in State Medicine of Trinity College, Dublin. *Royal College of Surgeons in Ireland:* Edward D. Mapother, M.D., Medical Officer of Health to the city of Dublin, and Archibald H. Jacob, M.D. *Irish Medical Association:* John Morgan, M.D., and Edward J. Quinan, M.D. *Irish Poor-Law Medical Officers' Association:* D. Toler Maunsell, M.B., and J. E. Kenny, both Physicians to the Dublin Dispensary Districts. *Cork Sanitary Association:* Frederic W. Pim and John M'Evoy, both Dublin merchants. Mr. Furlong and Dr. Quinan have been elected honorary secretaries to the Committee.

ERGOTIN AS A HÆMOSTATIC.

DR. SCHWAICHOFER, in the *Irish Hospital Gazette*, gives some account of experiments made by Dr. Drasche, of the Rudolph Hospital, on the use of ergotin as a hæmostatic:—

"The experiments as to its hæmostatic powers were mostly made on phthisical subjects who had hæmoptysis, either after the usual means, such as ferri sesquichlor., alum, digitalis, plumb. acet., etc., had been tried in vain, or especially in cases where the hæmoptysis began as an actual hæmorrhage. However, the ergotin was also tried in cases of epistaxis, hæmatemesis, hæmorrhage from the bowels in enteric

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fever, and especially in scorbutic hæmorrhages; and generally with success, even though the improvement was sometimes only transient. In cases of hæmoptysis the quantity of ergotin that was injected was from one grain to one grain and a half; in exceptional cases this was increased to seven grains (spread over several days), which was the maximum dose. The local inflammation was always proportional to the strength of the solution. The injections were always made in the neighbourhood of the greater pectoral muscle. Usually, shortly after the injection, the skin around the puncture became red and tender, with a sensation of burning and often of pain; sometimes there was swelling and persistent induration, with greenish-yellow discoloration of the skin. In four very obstinate cases of hæmorrhage in advanced phthisis, where cavities had already formed, the hæmorrhage was checked after from one to three injections; indeed, in one case a single injection proved sufficient. Even in those cases where the hæmorrhage was not at once checked, it at all events became much less copious, and frequently only remained as a painful expectoration of coagula, which ceased after a few more injections. The rapid effects produced by the subcutaneous injection of the ergotin were all the more striking, as, shortly before, much larger doses of this drug had proved inert when administered by the mouth. In some cases where a copious hæmorrhage had its origin in a large cavity, of course we could not expect ergotin to work miracles, and still only in a single such case was its use absolutely without effect. One phthisical young man, who had been attacked every morning for a week with violent epistaxis, which had been treated unsuccessfully for four days with ice and perchloride of iron, was completely cured after two one-grain injections of ergotin. In scorbutus, where the cause of the hæmorrhage is want of tone and a liability to rupture in the walls of the vessels, ergotin is particularly useful, especially when other remedies have been tried and have failed. These results show that this remedy is in general practical and effective. To the practitioner it cannot but be most comforting in dangerous cases to have at hand a remedy at once so certain and so easily applied, especially where sudden and profuse hæmorrhage calls for immediate action, and where, as too often happens, great difficulty is met with in administering internal remedies."

ABSTRACT OF

THE LUMLEIAN LECTURES.

DELIVERED AT THE ROYAL COLLEGE OF PHYSICIANS.

By FRANCIS SIBSON, M.D., F.R.C.P., F.R.S.,
Lately Physician to St. Mary's Hospital, etc.

ON THE INFLUENCE OF BRIGHT'S DISEASE

(1) ON THE HEART AND ARTERIES, AND (2) ON THE PRODUCTION OF INFLAMMATION.

LECTURE III.

HAVING briefly recapitulated the cases of acute Bright's disease which he had specially examined with a view to ascertain the condition of vascular tension and the various signs of the same, Dr. Sibson passed on to consider chronic Bright's disease in the same relation. But before doing so he pointed out that he had met with some cases of acute Bright's disease in which there was neither intensification of the second sound nor doubling of the first, as in a patient of Dr. Pavy's at Guy's Hospital.

In passing to the fatty kidney, one is, so to speak, giving but the story of the man after one has told it of him as a boy. It is well known that the fatty kidney is but a second stage of the acute; yet Dr. Sibson does not think that both should be called by the same name. When inflammation has ceased, the change should no longer be called inflammatory, for this only causes confusion, and gives rise to a wrong line of treatment. The lecturer gave the details of certain cases of fatty kidney lately under his care, beginning with transitional cases between the acute and fatty forms of the disease. One of these was a girl in the Middlesex Hospital, whose urine contained much albumen, but no blood. The pulse was tense and gradual at the wrist: the second sound was metallic over the aorta; both sounds were very loud over the conus arteriosus; and the first peculiarly reduplicated to the right of the nipple.

A second case was that of a man under Dr. Black at St. Bartholomew's Hospital, who had been ill four months with general dropsy, headache, and sickness. There was much albumen in the urine. The radial pulse stood out and rolled under the finger. The cardiac apex was half an inch beyond the nipple; the first sound muffled; the second metallic, and double over the pulmonary artery—the second element being aortic; the first markedly doubled from the nipple to the sternum, its first element being formed by the right ventricle.

In another group of cases the fatty condition of kidney was absolute. The first of these presented hypertrophy of the heart, double first sound, and intense second. The reduplication disappeared on the removal of fluid from the chest, and returned after an attack of erysipelas. The second case presented hypertrophy of the right side of the heart, reduplication of the first sound over the septum ventriculorum, but no special loudness of the second over the aorta—a sign of under-supply of blood to the systemic circulation which agreed with the signs of enlargement of the right side of the heart. Another case was that of a previous soldier, who suffered from ascites and diarrhœa, and whose heart was evidently on this account below the usual standard. Here the sounds were blunt, but there was no evidence of a ringing character of the second or reduplication of the first. Comparing these cases, it is evident that as arterial resistance presents itself the signs appear, and that as the cause is lost they disappear.

Dr. Sibson examined a second series of the last-mentioned variety of Bright's disease in other London hospitals. In all of these the essential element of an abundance of albumen in the urine, without blood, existed. There were ten cases in all. Five of these presented typically accentuated second sound, and reduplicated first over the septum; only two presented the features typically found in acute Bright's disease. Two others presented muffling of the first sound and intensification of the second over the aorta, the first remaining single. The last presented only occasional reduplication of the second sound near the base. Several of these cases are worthy of special record. Thus, the first was a man of twenty-four, under Sir William Jenner, at University College Hospital, who when first examined was suffering from dyspnœa and extreme restlessness. There was powerful cardiac impulse: the first sound was reduplicated in a remarkable way—the three sounds following each other at equal distances, and not differing from each other in tone; the pulse-tracing showed slow rise and slow fall, yet without much breadth of plateau. Five weeks later there was a remarkable change,—the dyspnœa had disappeared, the patient was able to walk, and there was consequently a complete loss of the characters discovered at the first examination. The first sound was still double, but quite simple—the two elements being close to each other, and the whole limited to the nipple. The second case was much like the first. The third case was that of a woman under Dr. Black. On the first examination all the signs spoken of were found; but on the second, after bleeding (which removed the cause of these), the same characters of sounds were found limited to the breadth of a stethoscope close to the apex. The eighth case was peculiar. The urine was scanty, and contained much albumen. The second sound was intensified over the aorta as before, but the first sound was not doubled. In the two remaining cases of this series there was absence of reduplication of the first sound and the presence of a murmur—apparently tricuspid. In both of these cases there was a drainage from the circulation,—by the kidneys in one, and by the bowels in the other. It is found, therefore, that when the vascular tension is lessened the area over which the signs are heard is lessened also, and that as the tension is raised the area is extended.

Up to this point, Dr. Sibson said he had been standing on firm ground. He had been able to trace the condition generally to acute Bright's disease, coming on in an uninjured constitution, and advancing till it ripened into fatty kidney. But the chance of error was greater in dealing with ordinary chronic cases. True, the acute cases may mislead when they are but secondary attacks in a chronic course, but when there is granular disease of the kidney there are other diseases associated in a great number of instances—especially diseases of the heart and arteries. Three great questions meet us at every turn of the inquiry into the influence of granular kidney on the circulation—namely, (1) Does the heart disease cause the kidney disease, or (2) the kidney disease the heart disease, or (3) is a certain disease-engendering cause the common cause of both? The triple question is complicated and difficult. Dr. Sibson said he was but echoing the answers of many great

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men, some of whom were before him, when he replied to the first portion of the question affirmatively, to the second portion affirmatively, and to the third also affirmatively. Some cases were given in illustration. One was that of a middle-aged man, who came into St. Mary's Hospital under Dr. Sibson's own care, with all the signs so often referred to, including strong pulsation over the aorta. At one time during his residence he presented the symptoms of great obstruction to the circulation, and pulmonary apoplexy, seven ounces of blood being raised. This was followed by a remarkable character of respiration, the breath being very frequent for thirty seconds, and then ceasing for twenty-five seconds, and so on alternately. Dyspnœa continued for the next fortnight. The substitution of whisky for brandy had a diuretic effect, and great relief followed; but then followed a relapse, which lasted a month. At last the patient left the hospital fairly well, but with all the signs marked which have been called characteristic. He was afterwards admitted under Dr. Broadbent, and died. The heart was found of enormous size, and the kidneys granular.

Dr. Sibson examined some fifteen similar cases in other hospitals, and the prevailing features were those already described. In one case, under Dr. Murchison, there was great diffusion of the reduplicated first sound over both ventricles, with the most marked double pulsation over the aorta. Post-mortem, the heart weighed twenty ounces; the kidneys were small and wasted; there was gouty deposit in the joints of the great toe; and the vessels of the pia mater were thickened. In another patient of Dr. Murchison's, suffering from the same disease, nitrite of amyl was administered with the usual effect of removing every trace of arterial tension. As was already remarked, Dr. Broadbent was the first to try the nitrite of amyl experiment in these cases. The same effect is seen when bronchitis, pleurisy, etc., supervene on the chronic disease of the kidneys.

Dr. Sibson summed up the points of his lectures by pointing out that the observations which he had made proved the existence of enlargement of the heart in various forms of Bright's disease. The left ventricle is hypertrophied, the pulse is tense, resistance is offered to the entrance of blood into the arteries, and hence a muffled first sound and a loud second are heard at the aorta; and a double first variously distributed, and perhaps followed by a double second at the pulmonary artery. Sphygmographic tracings of the radial artery show the great resistance, which nitrite of amyl removes. The central cause is undoubtedly the altered condition of blood due to the kidney disease. The various signs of the disease are indications of the change of tension, of the amount of poison in the blood, and of the condition of the kidneys. The extent of the disease is thus gauged, and some indication afforded of the treatment which should properly be applied, and of the extent to which this should be carried out.

CASE OF POISONING BY COLCHICIN IN BEER.

By Practising-Physician BÖTTERN, of Faaborg.(a)

In the *Archives of Pharmacy and Technical Chemistry* for January, 1874, is to be found an article wherein the extent to which the consumption of *Colchicum autumnale* has increased of late years is pointed out; and Dr. Spiess, of Frankfort, makes the remark that, while the manufacture of beer has quintupled during the last ten years, the profit from hop products has remained almost stationary. As it has been proved by chemical analysis that the alkaloid colchicin, contained in *Colchicum autumnale*, is used as a substitute for the bitter principle of hops, it is reasonable to suppose that colchicum is to a very large extent employed to adulterate beer. That such an adulteration is practised I have lately experienced, and shall in consequence communicate the following facts:—

On February 24 of the present year, four gentlemen, including myself, supped in the evening at a friend's house, and at supper were treated to English beer. About a quarter of an hour after our repast we all began to feel unwell, with oppression in the region of the stomach and frontal headache. Shortly afterwards three of us were seized with violent retching, which was repeated in the course of the evening, and to which in my own case was superadded a profuse watery diarrhœa.

Our attention was directed towards the beer, when the servant-maid, who was in a similar predicament, declared that she had that evening taken nothing except a little of the beer which was left. The fourth of the party was for the first time seized with vomiting later in the evening; and in one case the retchings continued through the night, whilst the rest of us slept well. Immediately after an attack of vomiting we felt much lighter, but the sense of oppression soon returned, and then the vomiting recurred. Before we separated in the evening we drank a strong cup of coffee; subsequently we felt well. Next day we were all indisposed, with a sense of oppression in the gastric region, a burning heat in the head, thirst, and shivering fits; in one of the party rheumatic pains in the back and limbs were experienced. In my own case, towards the evening of the 26th, an abundant crop of lichen came out on the face, spreading over the whole body. But after five days it commenced to disappear under the use of warm baths and the mineral acids. My condition has in other respects, when I except the inconvenient itching and occasional shivering fits, been good, and the digestion in order. The servant, who was in the sixth month of pregnancy, still feels some heat in the head, and has occasional vomiting—symptoms which have not since appeared in any of the rest of us.

The beer was sent in casks from England, and was bottled in this town. Each of us drank only a small tumbler of it, and the servant finished what was left in one of the glasses. The beer was rather muddy, and had a somewhat flat, but not an acid taste. I presume that the bottle from which we drank was one of the last in the cask, to which fact are due the muddy appearance and the strong action. Our host and a lady, who had latterly drunk small quantities of the same sort of beer, have occasionally suffered from slight frontal headache and cardialgia, with nausea, without being able to account for these sensations.

The symptoms we were subject to on the evening of February 25 presented some similarity to poisoning by arsenic or copper; but it at once occurred to me that, as the beer was imported, it had been largely adulterated with one of those modern substances—picrotoxin or colchicin. With the kind assistance of Apothecary Berg and Candidate-in-Pharmacy Dons, colchicin was proved to exist both in the beer which was still in the bottle we had drunk of, and in that contained in several other bottles.

Excepting Dr. Warncke's communication in No. 6 of the sixth annual volume of the *Hospitals-Tidende*, I have nowhere found a case of colchicum-poisoning recorded. Dr. Warncke's case was very much more serious, which may be attributed to the more concentrated solution, and possibly the non-ingestion of food beforehand. The preceding meal and the speedy vomiting were in our case very important elements, so that in the course of a few days it is to be hoped we shall be perfectly recovered from the ill-consequences detailed.

That this was an instance of poisoning by adulterated beer is beyond all doubt, and I trust that these communications (Dr. Warncke's and the present one) may possibly tend to the exercise of some control over imported beer.

Messrs. Berg and Dons intend to communicate to a pharmaceutical journal the mode of proceeding in the analysis of the beer.

(a) Translated from the *Hospitals-Tidende*, March 18, 1874, by J. W. Moore, M.D., F.K.Q.C.P., Fellow of the Swedish Society of Physicians, ex-Scholar of Trinity College, Dublin.

THE EUCALYPTUS GLOBULUS.

The following exceedingly interesting comments on the properties and uses of the *Eucalyptus globulus* are from a lecture delivered by Professor Bentley at the Royal Botanic Society's Gardens in Regent's-park:—

Having described, as fully as time would allow, the general and botanical characters of the *Eucalyptus globulus* and other species of *Eucalyptus*, the Professor proceeded to refer to their properties and uses, with more especial reference to *Eucalyptus globulus*.

The first and most important influence which this tree exerts, and that which has brought it more especially into notice, is its power of destroying the malarious agency which is supposed to cause fever in marshy districts, from which circumstance it has been called "the fever-destroying tree."

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It is in this respect commonly regarded as being serviceable in two ways—first, by the far-spreading roots of this gigantic tree acting like a sponge, as it were, and thus pumping up water and draining the ground; and, secondly, by omitting odorous antiseptic emanations from its leaves. Probably the influence of the latter is but small; although I am by no means of the opinion entertained by some writers, that these emanations are without effect. I do not certainly believe, as has been recently stated, that the branches of a solitary *Eucalyptus* tree can have had any effect in neutralising the malarious influence of a district previously constantly infected by fever; but I do think that the foliage of groves of *Eucalyptus* trees, by diffusing an agreeable, aromatic, camphoraceous, stimulating odour in the surrounding air, does have an appreciable influence in neutralising marshy miasms, and thus improving the healthiness of the district. The great influence is, however, in my opinion, unquestionably produced by the power the roots possess of absorbing water from the soil. It is stated that a *Eucalyptus* tree absorbs as much as ten times its weight of water from the soil; and hence the enormous suction-power of masses of such trees may in some degree be judged of; so that, where thickly planted in marshy places, "the subsoil is drained in a little while as though by extensive piping."

That the main influence of *Eucalyptus* trees is thus due to the absorptive power of the roots is also borne out by the fact that other plants of rapid growth, when planted in marshy districts, have a sensible effect in diminishing their malarious influence. This is notably the case with the sunflower, which is grown for this purpose to a large extent in the swampy regions of the Punjaub and other parts of the world; and the effect has been that districts which were previously remarkable for their insalubrity are now said to be entirely free from miasmatic fever.

But whatever be the cause or causes which render a marshy district thus comparatively healthy to what it was before the introduction of the *Eucalyptus* trees in the neighbourhood, the fact is unquestionable, and is now testified to in various parts of the world. Thus at the Cape, in a very few years, the cultivation of the *Eucalyptus* has completely changed the climatic condition of the unhealthy parts of that colony; and in Algeria, where it has been tried on a large scale in a district previously noted for its pestilential air and consequent prevalence of fever, not a single case now occurs, although the trees are not more than nine feet high; and in the neighbourhood of Constantia it is also stated that at another noted fever-spot covered with marsh-water both in winter and summer, in five years the whole district was dried up by 14,000 of these trees, and the inhabitants now enjoy excellent health. In Cuba, again, marsh-diseases are fast disappearing from the unhealthy districts where this tree has been introduced. In the Department of the Var it is also said that a station-house situated at one end of a railway viaduct, so pestilential that the officials could not be kept there longer than a year, is now as healthy as any other place on the line, in consequence of the planting of a few *Eucalyptus* trees. Numerous other instances might be cited to the same effect as having occurred in France, Spain, Italy, Germany, and other parts of the world; and we cannot doubt, therefore, that although the effects have been to some extent probably exaggerated, the statements are substantially correct, and that this tree does possess a most beneficial effect in neutralising and improving the malarious influence of marshy districts, and that attempts should be therefore made to introduce it into those regions where the climatic influences are favourable for its growth and development. We now proceed to allude briefly to the other properties and uses of this tree and of other species of *Eucalyptus*.

In the first place, we may state that the timber of many species of *Eucalyptus* is of very great value, and is largely used throughout the Australian colonies. The great length of planks obtained from such trees has been already mentioned; and those of the *Eucalyptus globulus* and other species are most excellent for ship-building. The timber of several species is remarkable for its solidity, hardness, and durability, and from its power of resisting the attacks of insects and the teredo, as also the influence of moisture. Such qualities render it peculiarly valuable for many useful purposes, as, for instance, railway-sleepers and maritime works. Various species, which we have not time to refer to, are also applicable to a number of other useful purposes—as shafts for gigs, spokes and felloes of wheels, boards for flooring, material for fencing land, poles [illegible] etc.

The products obtainable from *Eucalyptus* wood we forget that of potash, more "particularly as this alkali can be obtained without sacrifice of any valuable timber, and from localities not accessible to the wood trade." The richness in potash of this wood may be estimated from the fact that Baron von Mueller found that the ashes of these trees "contained a larger proportion of potash than the elm or maple, which are the trees most esteemed for that purpose in America. The yield from the latter trees is estimated at 10 per cent. of the ashes, while that from the *Eucalyptus* is 21 per cent."

The barks of various species are also now used to some extent in paper-making; those of *E. rostrata*, *E. obliqua*, *E. corymbosa*, and *E. goniocalyx* are amongst those so employed. These papers are principally used for packing and printing. Good writing-paper has also been made from the bark of *E. obliqua*.

The barks of many species are also used extensively for tanning. They owe this property to the presence of similar constituents to those contained in oak-bark and other substances commonly employed in this country and elsewhere for a like purpose.

A number of species of *Eucalyptus* also exude a very astringent substance, which, from its resemblance to the ordinary medicin alkino, both in appearance and properties, is commonly designated as *Eucalyptus* or *Botany-Bay Kino*. This substance, which, when it first exudes, trickles like blood down the bark of the trees in a semi-fluid state, ultimately hardens into dark red shining masses, which have a very astringent taste. It is employed for similar medicinal purposes as our officinal kino, and also for tanning and dyeing. Various specimens of this kino, derived from *E. resinifera*, *E. globulus*, *E. corymbosa*, *E. rostrata*, and *E. citriodora*, are now exhibited.

Another substance, called *Eucalyptus* or *Australian Manna*, is also yielded by *E. mannifera*, *E. viminalis*, and probably other species. Two varieties of this manna have been distinguished. One is in small, rounded, opaque, whitish masses, with an agreeable sweet taste. It has a similar action to the ordinary manna in use in this country, and contains somewhat similar constituents. It exudes abundantly during the summer months through punctures or wounds made in the leaves and young bark. As it exudes it hardens, and drops from the leaves on to the ground in pieces sometimes as large as an almond.

We may here refer to the fact that the flowers of species of *Eucalyptus* yield a large quantity of honey, and are therefore greatly affected by bees. It is said that Gould "has taken as much as a teaspoonful of honey from the mouth of a bird shot by him whilst it was feeding."

Another very important product of the *Eucalypti* is the essential oil, which may be obtained in large quantities by aqueous distillation from the leaves. This oil is stored up in the pellucid glands contained in the leaves, readily observed when these are held up to the light by the semi-transparent appearance they then exhibit. These oils are prepared on a very large scale by Mr. Bosisto, of Melbourne, and now form an important article of commerce with this country and elsewhere. Mr. Bosisto alone produces about 1000 lbs. of *Eucalyptus* oils per month. These oils generally have a somewhat camphoraceous smell; but the odour differs in the various species, and the oil obtained from *E. citriodora* has a pleasant citron-like odour.

Some of these oils have been employed, as *Eucalyptus oleosa*, as a solvent for resins in the preparation of varnishes; but they are of far more value for diluting the more delicate essential oils used in perfumery. They have been especially recommended for this and other purposes in this country by Mr. Rimmel; and specimens of soaps and other substances thus scented have been kindly sent by him for illustrations at the present lecture. The oils of *E. amygdalina*, *E. globulus*, and *E. citriodora* are thus more especially employed.

The oil chiefly consists of a substance called by its discoverer, M. Cloez (who made some interesting researches on the essential oil of *E. globulus*), "eucalyptol," a liquid body, in chemical characters resembling camphor.

Most of these *Eucalyptus* oils are of a yellowish colour, although some have a bluish tint; by redistillation the oil may be obtained nearly colourless, as in the specimen now exhibited from Messrs. Savory and Moore, of Bond-street.

From the quantity of oil contained in the leaves, they yield, when burned, a very large proportion of gas; and it is said that one of the towns in the gold regions was for a long time lighted by gas extracted from this source.

The gas thus obtained is stated to produce a very brilliant flame; and as much as 10,000 cubic feet have been obtained

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from one ton of leaves. But the expense of collecting these leaves in a country where labour is so costly appears to have proved a barrier to its employment except under exceptional circumstances.

We have now, in conclusion, to allude very briefly to the medicinal properties of the *Eucalyptus globulus*. The febrifugal properties of the bark and leaves of this plant have been testified to by many practitioners—as M. Pepin, Dr. Carlotti, Dr. Lorinser, Professor Gubler, Dr. Keller, Dr. Maclean, and more especially of late years by Dr. Gimbert, who has published two important communications upon the subject. It is said to be a valuable remedy, and more especially in intermittent fevers and bronchitis. For several elegant preparations of the leaves and bark, such as the tincture, fluid extract, syrup, extract, lozenges, and pills, I am indebted to the kindness of Messrs. Savory and Moore, who have made these preparations a special object of study.

Probably some of the exaggerated statements that have been made in reference to the efficacy of *Eucalyptus* bark and leaves in fevers have arisen under the mistaken idea that the bark contained an alkaloid resembling, if not identical with, quinine, the well-known alkaloid of cinchona-barks. But the experiments of Mr. Broughton, the government chemist of Ootacamund, entirely disprove this; for upon careful examination of the bark and leaves, Mr. Broughton states that neither quinine nor the other alkaloids of cinchona-bark, as quinidine, cinchonine, or cinchonidine, exist in the plant in any proportion. What properties the plant possesses would appear, therefore, so far as known at present, to be due essentially to the presence of eucalyptol, already noticed as the principal constituent of *Eucalyptus* oil.

From the testimony of numerous medical practitioners in various parts of the world where the plant has been introduced, and from its popular reputation in fevers in Australia and other countries, we can scarcely doubt that it does possess anti-periodic properties, although these are far less important than those of cinchona-bark.

In making preparations of *Eucalyptus* leaves, the narrow leaves should alone be used, as recent investigations by a German physician, Dr. Hermann Œffinger, have shown that these are far more efficacious than the broader leaves found on the younger and faster-growing herbaceous shoots.

Dr. Gimbert has also recently introduced a new method of dressing wounds by using *Eucalyptus* leaves instead of lint. The leaves are simply laid on the wounds; and it is said that their balsamic nature not only cures, but removes all the unpleasant odour.

Another way of using *Eucalyptus* leaves is in the form of cigarettes. These are made by Messrs. Savory and Moore, and also by Mr. Bosisto, of Melbourne; the last-named gentleman originally exhibited them at the Paris Exposition. These cigarettes are reputed to be efficacious in bronchial and asthmatic affections and in other ways.

We have now taken a general view of the characters, properties, and uses of the various species of *Eucalyptus*, and more especially of *Eucalyptus globulus;* and we cannot but conclude that, allowing for exaggeration, when we regard the beauty of the different species, the proved influence of *Eucalyptus globulus*, and probably other species, in improving the pestilential character of marshy districts, and the numerous valuable economic and medicinal products derived from them, the genus is one of the most important to man in the vegetable kingdom.

FROM ABROAD.

Bartholomæus Eustachius.

In the April number of his *Archiv*, Professor Virchow has addressed the following appeal in aid of the subscription now being raised for the erection of a statue to this celebrated anatomist:—

"Three hundred years have passed away since the great anatomist and physician, Bartholomæus Eustachius, died; and the authorities of his birthplace, San Severino, in the March of Ancona, deem this to be a suitable epoch for raising a monument to their celebrated countryman. A national committee, under the presidency of Signor Tommasi, has been formed for the purpose of obtaining the means of erecting a statue larger than life at San Severino; and it appeals to foreign physicians, and especially to the extra-Italian universities, for their participation in this praiseworthy undertaking. It will suffice in communicating their request to our German colleagues to remind them of the debt of gratitude which we also owe to the Italian thus to be commemorated. His anatomical plates were, as Eble states in his 'History of Anatomy,' apparently the earliest executed in copper. After they had been supposed to have been lost during 150 years, Pope Clement XI. presented them to his physician Lancisi, who published them in Rome in 1714. But the best edition, which Sprengel designates as excellent and classical, was brought out by our countryman Albinus, at Leyden, in 1744; and it was certainly a most remarkable testimony to the excellence of these plates that such a man should have deemed them worthy of republication nearly 200 years after their execution. In fact, the great abundance of the autopsies and the careful utilisation of comparative anatomy imparted a breadth and certainty to the acquisitions of Eustachius possessed by few of his successors; and although he must be numbered among the opponents of his great contemporary Vesalius, this may be well explained by the circumstances that he, Professor of Medicine in the Collegio della Sapienza at Rome, the chief physician of Cardinals San Carlo Borromeo and of Felice Pedretti (afterwards Pope Sixtus V.), and the learned expounder of the Greek and Arabic writers, felt the fetters of the Galenic dogmas less oppressive than did the young reformer thrown into the midst of the great opposition movement of the North. The discovery of the Eustachian tube, of the supra-renal capsules, and of the thoracic duct, and the exact demonstration of so many portions of neurology, splanchnology, and myology, designate Eustachius, in the history of the progress of science, not as an opponent, but as a helpmate of Vesalius. And if it was only too late in life that the conviction became revealed to him, that pathological anatomy constitutes the basis of the doctrine of disease, yet must not the praise be denied him that he was one of the first who gave expression to such conviction, and thus prepared the way for the immortal work of Morgagni. Eustachius was not the man to remain stationary, and still less likely was he to retrograde; and in the fullest sense of the word he was a searcher for and an expounder of the truth. Were his name erased, how vast a hiatus would be produced amidst the successive productions of that remarkable century. Well justified, then, is his native country, at length united, in determining, after the manner of its ancestors, to erect a public monument to him; and all of us who acknowledge the sources of our knowledge in the intellectual labours of Italy, should feel honoured in being allowed to contribute our mite to this noble work of national gratitude. May these lines induce many of my countrymen and other readers of the *Archiv* to forward their contributions to the Committee of the Municipality of San Severino."

Total Transparency in Hydrocele.

In a paper inserted in the *Gazette Médicale* of May 9, M. Nicaise draws attention to those cases of hydrocele in which transparency exists throughout its entire extent, no opacity indicating the position of the testicle. Although its occasional occurrence had been noticed by prior writers, the fact was first brought prominently forward by M. Marcellin Duval, first in Bouchardat's *Annuaire de Thérapeutique* for 1858, and then in the *Gazette des Hôpitaux* for June, 1868. During the present year, M. Ohrond, a pupil of M. Duval, has made it the subject of his inaugural thesis. M. Nicaise refers to a case which came under his care at the Pitié Hospital in 1873. A patient, the subject of blenorrhagic subacute epididymitis, exhibited a tolerably abundant effusion into the tunica vaginalis, accompanied by total translucidity. This was the more remarkable, since by palpation the dimensions of the testis and of the epididymis, which were considerable, were easily ascertained. The quantity of translucid liquid, which was removed by aspiration, scarcely equalled in volume the solid mass that remained within the scrotum. A young infant formed the subject of another case, the tumour, composed of a simple hydrocele of the tunica vaginalis, being of the size of a small walnut. There, too, the translucidity was complete, and unless it had not been known to have done so, the testicle might have been supposed never to have descended. According to M. Duval, this occurrence is chiefly but not exclusively observed in idiopathic hydrocele. M. Nicaise believes the phenomenon somewhat depends upon the complete reflect'

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which takes place from the serous surface of the tunica bathed in the liquid; and it is consequently met with when this membrane has undergone but little alteration from prolonged inflammation. The light which is employed for examination of a hydrocele should be varied in its position, so that it should traverse all parts of the tumour. Its intensity may also influence the result of the examination, as, when this is considerable, opacities may be discovered that elude a duller light. M. Nicaise concludes as follows:—

"Thus, then, in certain cases, a tumour consisting of a solid mass and of liquid may appear exclusively liquid; while in other cases, which occur much more frequently, the quantity of the liquid appears much more considerable than it really is. Palpation, therefore, should always be employed in hydrocele as a corrective of the indications furnished by the examination with refracted light. Without this, we are liable to believe that the testis is placed at a greater distance from the parietes than it really is, and run the risk of wounding it on making a puncture. From what has been said, it will be seen that the examination of the translucidity of hydrocele renders our diagnosis more precise, since it may furnish indications as to the condition of the serous membrane, the thickness of the parietes, and the translucidity of the liquid. These indications vary accordingly as the translucidity is more or less complete, or total."

REVIEWS.

Clinical Aspect of Syphilitic Nervous Affections. By Thomas Buzzard, M.D., F.R.C.P., Physician to the National Hospital for the Paralysed and Epileptic. London: J. and A. Churchill. 1874. Pp. 141.

Somebody has said somewhere that it is a great relief to a reviewer to have to deal with a book that is either undeniably bad or undeniably good. In both cases the work before him is plain. In the one case he can enjoy the satisfaction of cutting-up the book without scruple, and without being tempted to use any of those phrases which, separated from all qualifying context, can be made to serve advertising purposes, and to seem to recommend as a good book one that, at the best, is but a poor and weak one; in the other, he has the delight of honestly and freely giving well-deserved praise. To Dr. Buzzard we are indebted for the pleasure and profit of reading a book that is a valuable addition to our knowledge of, and power of coping with, disease.

The widespread and disastrous effects of the syphilitic poison on the nervous system have long been recognised on the Continent, and many important and valuable writings on the syphilitic nervous affections have been published by Virchow, Zeissl, Lancereaux, Huebner, and others of our continental brethren, and a belief in the existence and importance of these diseases has been for some time gradually growing and spreading among ourselves. But we suspect that but few English practitioners have as yet any very useful practical knowledge on the subject. It is true that we may point with great satisfaction and some pride to the work of English labourers in this field, and we recognise fully the great value of the writings of Drs. Wilks, Moxon, Hughlings-Jackson, Clifford Allbutt, and Broadbent, and of Mr. Hutchinson; but their writings lie scattered in reports, journals, and systems of medicine, and no one can dispute, we fear, the truth of the following opening sentences of Dr. Buzzard's work:—

"Every medical practitioner," he remarks, "it may be assumed, is acquainted with the fact that persons who have, at one time or another in their lives, become affected with constitutional syphilis, may some day exhibit symptoms of nervous disorder which are referable to this infection, and may prove to be curable by specific treatment. Notwithstanding this, it is certain that this pathological association (and consequently its important pathological bearing upon therapeutics) is very far from being generally remembered. The result is seen in the fact that patients frequently present themselves for advice who are suffering from some form of nervous affection dependent upon syphilis, who have already received all kinds of treatment except one directed to the basis of their disorder, and who recover, or are more or less benefited, when specific remedies are adopted." "While," he goes on to say, "in the treatment of those disorders, more, perhaps, than in any others, an early application of appropriate remedies is of the greatest importance, and frequently, it is certain, makes all the difference between cure and the continuance of irreparable injury, or even death."

The truth of all this being allowed, the appearance of the first distinct English work on syphilitic nervous affections must be hailed as an important event. The admirable Lettsomian Lectures of Dr. Broadbent, already published in the medical journals, and destined, we hope, to appear in due time in a separate shape, contain very valuable teachings on the subject; but Dr. Buzzard's freedom from the trammels of the lecture-form and the exigencies of time have enabled him to deal much more fully with all the parts of his subject than Dr. Broadbent could allow himself to do, and hence his work has a wider practical value.

Dr. Buzzard's work is divided into four chapters, the first of which is "On the Diagnosis of Syphilitic Nervous Affections," and the second on their "Pathology and Morbid Anatomy"; while the third consists of cases illustrative of them, and the fourth deals with their "Prognosis and Treatment."

In the chapter on Pathology and Morbid Anatomy he has drawn largely on the observations of other writers on the subject, focussing, as it were, the results of the labours of Virchow, Lancereaux, Zeissl, Duchek, Ziemssen, and others; and he observes, in his preface, that "if he has referred more frequently to the writings of German and French authorities than to those of his own countrymen, it is not that he fails to appreciate the importance of the contributions which have been made to our knowledge of the subject by the latter, for the value of the work done—especially by Wilks and Hughlings-Jackson—has not been surpassed, but because it seemed to him that the usefulness of his book would be increased by its containing the views of authors whose writings are not so generally available to the English reader." We grant this, and acknowledge the excellence of the chapter and the worth of its contents; they are indeed an essential part of the work, as the history of a disease would be incomplete without the provings of the post-mortem theatre; but the other chapters, and especially that on Diagnosis, are the most important and most valuable parts of the book. Here the practitioner meets Dr. Buzzard at work in the consulting-room and at the hospital, and learns from his labours and experience, his successes and his failures, when to suspect and how to recognise the syphilitic origin of a nerve disorder. The diagnosis is sometimes of course very easy, and especially so when there are other signs of constitutional syphilis present, or a clear history of antecedent syphilis; but very often neither of these aids can be had. Neuroses may occur at the earliest stage of constitutional syphilis, but it is also to be remembered that, as Dr. Buzzard observes, "No period is too late for the occurrence of syphilitic nervous affection, twenty, thirty, or more years sometimes having elapsed since the primary infection"; and no history of its occurrence may be obtainable, from wilful concealment, forgetfulness, circumstances that make inquiry objectionable, or, especially in women, from ignorance. There may also be entire absence of all signs of constitutional syphilis except a nervous affection. In such cases the diagnosis may be exceedingly difficult. But Dr. Buzzard shows, and all who have much practical knowledge of the subject will, we believe, agree with him, that though there may be no pathognomonic symptom of the specific origin of a nerve disorder, yet the peculiar grouping of the symptoms "may lead of itself to a probability but little short of certainty." And some points—three in particular—are specially noticeable: 1st. The age of the patient. In young adults, free from heart disease and disease of the kidneys, syphilis should be suspected as the cause of nerve disorder much sooner than in patients of older age, whether older in years or only old in constitution. In connexion with this point, Dr. Buzzard says—"I have little hesitation in stating my conviction that, putting aside cases of injury, hemiplegia or paraplegia occurring in a person between twenty and forty-five years of age, which is not associated with Bright's disease, nor due to embolism (from disease of the cardiac valves), is, in at least nineteen cases out of twenty, the result of syphilis." 2nd. "The existence simultaneously of two or more grave lesions of the nervous system, not necessarily connected," is a condition of great significance; "it is exceedingly uncommon except as a result of syphilis, and very common in the disorders of the nervous system which are consequent on that disease." 3rd. "The existence of marked cachexia unexplained by evident disease of any of the viscera." These are signposts specially pointing to the existence of syphilitic infection; but Dr. Buzzard directs attention also to many others that

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may occur in combination or, apparently, singly—as obstinate sleeplessness, neuralgia, vertigo, irritability and depression of spirits, or graver mental disorder—conditions forming what Dr. Clifford Allbutt calls "the obscurer neuroses of syphilis" (*vide* "Medical Reports of the West Riding Lunatic Asylum," vol. iii.).

The treatment of syphilitic nerve disorder is simple: *the* remedy is iodide of potassium, and this must be given boldly—sometimes in such doses as sixty grains every six or every four hours; and when this fails, mercury in some form should be tried, and sometimes does eminent service. We cannot but think that a strong argument in favour of the mercurial treatment of syphilis might be drawn from the history and treatment of these syphilitic neuroses. Dr. Broadbent observes that the early writers on syphilis imputed to syphilis nearly all the nervous affections now recognised as traceable to it, while later on it came to be considered that "the internal organs and the nervous system were not liable to be affected by syphilis"; and this opinion appears, he remarks, to have been shared in by Hunter and Sir Astley Cooper. But during the last twenty or thirty years we have gradually gained positive and sure knowledge of the frequency and importance of the syphilitic neuroses; and we find that, not seldom, these can be cured only by help of mercury. Does this not at least suggest that by means of the early, careful, and long-continued employment of mercury these syphilitic nervous affections might be in many instances prevented?

We cannot afford more space to a notice of Dr. Buzzard's valuable work, but we welcome it gratefully, and most heartily commend it to the careful attention and study of our brethren.

The Domestic Management of Children. By P. M. Braidwood, M.D., Surgeon to the Wirral Hospital for Sick Children. London; Smith, Elder, and Co. 1874. Pp. 85.

This book will no doubt prove a most useful companion for mothers. The author carefully avoids entering upon a discussion of the symptoms and treatment of children's diseases. The management of infants immediately after birth, and their food, are the subjects of the first two chapters; next we have advice on clothing, bathing, and moral training; and lastly, a few hints on the treatment of emergencies.

We cannot agree with Dr. Braidwood that "castor oil is much too severe a purgative for a child." We have found it most useful, and, indeed, so transient in its action that we have given it constantly in the diarrhœa of infants, especially when teething, to remove any irritability of the intestinal mucous membrane and to *check* diarrhœa. We have followed Dr. Braidwood's advice in the dieting of children with sago ground very fine, and have found this form of diet nourishing and easily assimilated, where milk or other farinas have disagreed. The starch grains in sago being so much smaller than in wheaten flour or oatmeal, it is perhaps less irritating to the mucous membrane of the alimentary canal. The author condemns perambulators *in toto*. He considers that "there is no more fertile source of illness and injury to children." We are of opinion that some such means of transport to the parks, where the children can be let loose to benefit by the change of air, is most desirable. Where the perambulator is discarded, nursemaids will frequently carry the children over the crossings, lifting them by their arms. Rickety and delicate children, who more than others require change of air, would be deprived of it if perambulators are not to be used. We must take exception also to Dr. Braidwood's advice that "an infant should only be carried in the sitting posture." This position of all others must be carefully avoided as a continuance. Until the ossification of the vertebral column is more complete, the prone posture is better. Dr. Braidwood so carefully avoids the danger of recommending home physic, that we have no hesitation in advising all mothers to make themselves acquainted with the contents of this little book.

Peeps into the Human Hive. By Andrew Wynter, M.D., M.R.C.P., author of "Curiosities of Civilisation," "Our Social Bees," "Curiosities of Toil," etc. Two volumes. London: Chapman and Hall. 1874.

The numerous essays on a very miscellaneous variety of subjects contained in these volumes have appeared from time to time in the *Quarterly Review*, the *Edinburgh Review*, the *Times*, *Graphic*, etc., and readers who are acquainted with Dr. Wynter's former works will know exactly what to expect as to style and treatment. The author calls himself, with Autolychus, "a snapper-up of unconsidered trifles," but, instead of keeping them for himself, he serves them up for public use in a more or less entertaining and artistic manner, seasoned with more or less of useful and solid information. They vary considerably in merit, some partaking much more than others of the light character of the *soufflés*, and some, we must venture to say, being rather of the heavy *soufflé* order. The best of all of them, and the one which most directly concerns us, is that on "The Progress of Medicine and Surgery," which appeared originally in the *Edinburgh Review*, and which was noticed in our pages soon after its publication in that periodical. It has attracted, and deservedly, much attention, and will, we doubt not, be frequently read in these volumes with interest and profit. The essay on "Non-Restraint in the Treatment of the Insane" may also be read with much advantage as well as interest. It will help the non-medical public to a fuller and truer appreciation of some at least of the difficulties in the way of a more satisfactory and perfect system of treating the insane, and to a better comprehension of the very grave and serious disadvantages necessarily attaching to the growing system of huge and under-officered asylums. Dr. Wynter rightly directs attention to the "family-life" or "associated-cottage" system as seen to the greatest perfection in the famous Gheel colony. Anything like a sufficiently extensive and satisfactory adoption of this system must undoubtedly be a work of time, as it has been said that the *nourriciers* or attendents in Gheel "have acquired through ages a traditional aptitude for the intelligent treatment of the insane"; but a very similar arrangement to that of the Gheel colony has been largely tried for pauper-patients in Scotland, and is said to work very well.

Some others of the essays, as those on "The Training of Imbecile Children," on "Eccentricities of the Mentally Afflicted," and on "Poisonous Sewer-gas—the Way it is Laid On," more or less directly touch on professional subjects; but the majority are *de omnibus rebus, et quibusdam aliis*, and, though they may not contain much solid information, may serve very well to wile away an idle hour, to shorten a journey, or to provide topics of "conversation," and must be the outcome of no inconsiderable expenditure of time, labour, and skill.

Veterinary Medicines: their Actions and Uses. By Finlay Dun, formerly Lecturer on Materia Medica and Dietetics at the Edinburgh Veterinary College. Fourth edition. Edinburgh: Edmonston and Douglas. Pp. 576.

Mr. F. Dun's book has been always favourably known as a text-book with veterinarians, and we are bound to confess that this confidence is justly merited. The present edition is a considerable improvement on those heretofore published, and the work thus bestowed on it will certainly enhance its value to the student of the veterinary art.

FOREIGN AND COLONIAL CORRESPONDENCE.

FRANCE.

Paris, May 10.

Lecture on Syphilis and its Treatment, by M. Brouardel: Syphilis of the Larynx and Trachea; Syphilis of the Nervous System; Value of Mercury as a Remedy; Dr. Després and the Anti-Mercurial Treatment of Syphilis; Value of Caustics and of Iodide of Potassium—Treatment of Hydrocele by Alcoholic Injections.

It is not so many years ago that syphilis in its various forms was looked upon as belonging exclusively to the province of the surgeon. It is now, however, as frequently treated by physicians, and it is only in certain rare cases, when operative measures are required, that the surgeon is applied to; and this revolution in syphilography is owing in a great measure to the investigations of physicians in order to explain the existence of certain morbid phenomena, visceral or otherwise, which could not be accounted for by the history of any other known affection. Indeed, syphilis, like uterine and some other affections, seems to hold a mid-place between medicine and surgery, and we have only to look over the list of syphilographers of all countries, and we shall there find the names of both

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physicians and surgeons. These affections, moreover, show that medicine and surgery are one and the same science, and that the latter is but a branch or rather forms part of the former.

The following summary of a clinical lecture on some syphilitic affections, lately delivered by M. Brouardel, a promising young physician, and *agrégé* of the Faculty of Paris, who is acting for Professor Bouillaud at the Charité Hospital, will corroborate what I have just stated.

The syphilitic accidents observed in the larynx belong either to the second or to the third stage of the affection. It may be imagined that mucous patches (*plaques muqueuses*) developed in the larynx might cause a degree of œdema sufficient to impede respiration. M. Verneuil lately published a case in which he was obliged to have recourse to tracheotomy to prevent suffocation, and the patient recovered. M. Cuzco believes that syphilide of the larynx of the papulo-squamous form may give rise to the same accident. These lesions sometimes leave behind them strong cicatrices, which produce aphonia or contraction of the trachea. Finally, gummata may be developed around the cartilages of the larynx, which then become denuded, dislocated, and cause asphyxia by falling into the glottis. For the relief of these conditions tracheotomy is often resorted to. It is therefore of the highest importance to diagnose the precise seat of the cause of the obstruction of air in the windpipe, for, according as it may be the larynx or the trachea that is affected, the results are very different, as, for instance, the trachea may be so contracted as to prevent the introduction of the tracheotomy-tube. The advantage of the operation will therefore be *nil*. M. Trélat, in a work he has lately published on this subject, relates that, out of twenty cases of laryngeal syphilis treated by tracheotomy, he had thirteen cures; this, as M. Brouardel remarks, is certainly encouraging for those who uphold tracheotomy in the treatment of syphilitic affections of the larynx. As soon as aphonia sets in, it is of the highest importance (added the lecturer) to submit the patient to a laryngoscopic examination, to ascertain the seat and the nature of the lesion; for if it be put off until dyspnœa sets in, this means of examination would be rendered impossible, owing to the tumefaction of the mucous membrane of the air-tube, and the consequent effort made by the patient to breathe. Should the respiration be in the first place embarrassed or noisy, and then followed by aphonia, we shall be justified in diagnosing a lesion in the trachea; but if the lesion be situated in the larynx, it is unfortunately impossible, in the majority of cases, to say whether the trachea is implicated or not, and whether tracheotomy may be usefully employed.

The worthy lecturer next passed in review the different forms of syphilitic disease of the brain and nervous system. Syphilitic lesions, he said, are not infrequent in these organs, and they occupy sometimes the nervous substance itself, sometimes its envelopes, and sometimes both simultaneously. When syphilis affects the skull or its contents, the most constant symptoms are cephalalgia, characterised by its intensity, coming on at night, leaving the patient in the day, and causing the most distressing sleeplessness. This form of cephalalgia has been observed in both the secondary and tertiary stages of syphilis. It sometimes persists throughout the day, accompanied with giddiness and vomiting, thus assuming the character of meningitis. Syphilitic cephalalgia, however, may be distinguished from this and other affections of the brain, from the coexistence of exostoses or periostoses of the tibia or clavicle. About the end of the secondary stage, before the development of exostoses, it is not uncommon to find isolated nerves affected with limited paralysis. In paralysis of the common motor oculi nerve, syphilis is the cause in the great majority of cases; and paralysis of the external motor nerve, the facial, etc., has often been attributed to the same cause. M. Brouardel then referred to five cases of syphilitic paraplegia related by different authors, which were confirmed at the post-mortem. These cases presented, besides, all the characters of other ordinary paraplegiæ. In a case reported by M. Charcot, there was hemiplegia of motion on the same side as the lesion, with hyperæsthesia of the opposite side. Some authors have related cases of epileptiform convulsions due to syphilis, but they rarely constitute true epilepsy, and are quite amenable to treatment. The same may be said of epileptiform symptoms observed in lead-poisoning or in alcoholism, also in aphasia, polyuria, and diabetes, which are connected with syphilis.

If a patient is old or already affected with a diathesis, he falls rapidly into a cachectic condition; but when the patient is young and robust, if the chancre or primary lesion was not properly treated, tertiary symptoms set in in full force. In this case all the great secretory organs are altered in their functions. The liver is affected with amyloid degeneration, or it becomes the seat of gummata. The kidneys undergo the same transformations. According to M. Lancereaux, the spleen, the thyroid gland, etc., are also profoundly altered. In fine, the most powerful modifiers of the blood are affected—their action is modified; cachexia then necessarily supervenes. To this must be added, as a potent cause of debilitation, mercurial stomatitis, brought on by improper treatment, contractions of the œsophagus, of the rectum, suppurations, etc. When a patient is affected with cachexia, he becomes profoundly anæmic and very feeble; but the characteristic trait of the cachexia is the extreme tendency to ulcerations and to the formation of gummata. Here it may be observed that in a young syphilitic subject who is otherwise healthy, the severer forms of the disease are rarely developed, whereas in the cachectic condition they are to be met with in full force.

The first indication of treatment must therefore be to support the strength of the patient, for it is only on this condition that the remedy specially applied to the treatment of this affection can be usefully employed. The efficacy of mercury against syphilis cannot be denied; not to administer it in this case is to expose the patients to the development of the tertiary stage; and even when the symptoms of this stage become manifest, mercury ought to be employed. In order that the full therapeutic effects of the iodide of potassium may be produced, it is often necessary to have recourse at certain intervals to the mercurial treatment. It is, however, necessary to be cautious in the administration of mercurial preparations. Certain patients cannot tolerate the drug, and, moreover, it may rapidly produce salivation and mercurial cachexia, which latter is a very serious complication. The best mode of administering mercury is by short courses—that is, after the patient has taken it for a month, he should stop it for a fortnight, then resume the treatment, and stop it again after the end of a month, and follow the same course until a cure is effected. But for the success of this treatment it is indispensable that the drug be administered regularly and for a long time.

It is nothing new to tell your readers that this is the classical treatment of syphilis in France, and, indeed, all over the civilised world. But what perhaps is not generally known is that there is a generation of anti-mercurialists springing up in France, who seem to be rapidly increasing in numbers. They include in their list a great many distinguished practitioners, some of whom are not bold enough to avow their disbelief in the drug, while others proclaim it openly. Among the latter I have only to mention the name of Armand Després—a well-known hospital surgeon, and an *agrégé* of the Faculty of Paris—to give you an idea of the importance of this movement. Dr. Després in this respect may be compared to Dr. Drysdale, so well known for his writings against the mercurial treatment of syphilis on your side of the Channel. In conversation with Dr. Després on his unorthodox method of treating syphilis, he said that he acted from conviction acquired by an experience of seven years at the Lourcine Hospital in Paris, of which he was surgeon, and which is certainly one of the best schools for studying the different phases of this terrible affection. This experience, he added, has been sufficiently confirmed elsewhere, both in his nosocomial and private practice, to induce him to continue it, and he declares that the results will any day compare with those of the mercurial treatment, with the balance of favour on his side.

In a work he has lately brought out, Dr. Després compares syphilis to other affections caused by blood-poisoning or infection, such as small-pox, glanders, rabies, malignant pustule, pyæmia, typhus and typhoid fevers, urinæmia, measles, scarlatina, etc., against which there is no specific remedy. Dr. Després' treatment of syphilis is certainly very simple, and consists of good hygiene, tonics, and good substantial food. It is fortunate, he observes, that syphilis is a malady that runs through its course so slowly that the medical man has time to repair the damage done to the constitution by a "reconstituent" diet and regimen. This is accompanied by tonics in the form of iron and the powder of cinchona bark, whose action on the blood corpuscles is well known. These should be followed by saline and sulphurous baths, first once a week, to be increased to two a week as soon as the "secondary" eruptions make their appearance on the skin. This treatment is applicable to all the stages of the affection,

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but principally to its secondary and tertiary symptoms. The local treatment of what is commonly, though improperly, termed primary syphilis, consists of cauterisation and other measures applicable to ordinary ulcers. The cauterisation should be slightly applied, and repeated according to the character of the lesion, and Dr. Després recommends fluid caustics in preference to solid. Among the former he prefers a solution of the chloride of zinc to that of nitrate of silver or any acid, which he employs in different proportions according to the effect desired. In the primary stage, when there is a simple erosion, he employs a weak solution; but when these are chancrous ulcers, or even simple ulcers in appearance, he resorts to a saturated solution. The same treatment is adopted during the eruptive or secondary stage, and the *modus operandi* of cauterisation in this stage is, according to Dr. Després, as follows:—"Each syphilitic lesion of this stage consists of an inflammation of an islet of capillary vessels containing syphilitic blood, which should be eliminated. One cauterisation destroys the islet, and hastens the expulsion of the poisoned blood, which would otherwise remain, and cause further mischief." For the treatment of the other lesions in this stage, I must refer your readers to the work itself.

But if Dr. Després is an enemy to the use of mercury in syphilis, the same cannot be said of the iodide of potassium, which he freely employs in the so-called tertiary stage of the affection. He does not, however, go so far as Ricord and other syphilographers as to look upon it as a specific in this stage, but considers it useful in every form of ulceration of the tissues, particularly when found in the scrofulous or scorbutic diatheses. The dose also of this remedy is a subject of severe criticism by Dr. Després. He does not approve of the reckless way in which the drug is administered in tertiary syphilis. He has known as much as an ounce a day being prescribed for the cure of this malady, but fortunately for the patients they have not been poisoned by the drug. This he explains by its being what he terms an alimentary medicament, which, unlike mercury, is assimilable in the organism, as it contains a salt which enters normally into the composition of the humours and tissues of man. But if the iodide of potassium in such large doses does not produce a toxic effect properly so-called, it is known to cause vomiting and dyspepsia, and in smaller doses coryza and acne; whereas if administered in doses of one or two grammes (about thirty-three grains) a day, these accidents never occur. He finds that the quantity of even ten grains a day is sufficient to produce its therapeutic effects, and one can thus obtain all that is required of the remedy, provided it be continued for several weeks.

It is only about a year ago that the treatment of hydrocele by alcoholic injections was all the rage in the Paris hospitals, but from the disappointment met with as to its curative powers, this method is already consigned as a thing of the past. M. Tillaux, of the Lariboisière Hospital, and others, had given it a fair trial, but they were obliged to have recourse to the iodine cure, as relapses had occurred after the alcoholic injections. M. Tillaux, however, has hopes of its utility in children. He injects about fifteen drops of strong alcohol into the tunica vaginalis, leaving, as with adults, the fluid of the hydrocele in the sac; but further experience is necessary before an opinion can be formed as to its efficacy in these cases.

A Dr. Surmay, a provincial practitioner, has somewhat modified Dr. Monod's plan of leaving the fluid in the tunica vaginalis, and, before injecting the alcohol, he draws off the fluid, so that the alcohol which he employs, pure but weak, is in direct contact with the serous cavity, and thus produces a sufficient degree of inflammation to effect obliteration. He has found one injection insufficient, and has recourse to a second, which in general effects a cure. Out of twenty cases treated in this way he has had eighteen cures, but time alone will decide whether these will be permanent.

HOLLAND.

Rotterdam, May 11.

A Factory Act for the Dutch.

A first step has been taken in our country to protect the children in manufacturing places. A Bill has passed our Second Chamber to prevent superfluous labour and neglect of children. The first article of this Bill is as follows:—

"Article 1.—It is interdicted to take or to have in employment children under twelve years of age."

The deportment of our working classes in this matter merits attention. In different places meetings were held by them to promote the acceptation of the Bill; at last a meeting was held in the Hague, where the debates were very interesting, and at which meeting many members of Parliament were present. This we would call a healthy condition of our working classes in opposition to the now almost forgotten sickly agitation of the International.

GENERAL CORRESPONDENCE.

THE RESIDENT MEDICAL OFFICERS OF KING'S COLLEGE HOSPITAL.

Letter from Dr. Lionel S. Beale.

[To the Editor of the Medical Times and Gazette.]

Sir,—I have ventured to direct attention to the advantages of the system of temporary resident medical officers as adopted in King's College Hospital during the last thirty-four years. The plan, as I have stated, has worked well with us, and, in my opinion, no sufficient reason has yet been advanced for introducing the change recommended by Lords Hatherley and Selborne, who have acted as referees in the differences as regards the nursing between the Committee of the Hospital and the Council of St. John's House. It has been said, that as a permanent resident medical officer exists in most other hospitals, such an officer ought to be appointed in our institution; but I believe our plan is in advance of that generally adopted, and unless it can be shown to be bad and to have worked unsatisfactorily, it seems to me only right that it should be maintained. Stock objections against trusting "young men" constitute poor argument, and only serve to encourage prejudices already sufficiently popular.

Each institution adopts the plan it considers best; for, as in many other cases, there may be more ways than one of doing work well. A hospital may not be large enough to provide work for a permanent resident medical officer as well as three other residents. Upon the permanent officer would devolve much of the responsibility which would be divided by the three residents if they were alone in authority. The position of these officers under a permanent resident would be different, and the offices they hold would be less important and less responsible than they are now. Such a change as that contemplated ought not to be made, unless very cogent reasons for changing the existing system can be advanced. So far as I am aware, this has not yet been done, and I believe facts will be found to tell entirely the other way. The suggestion that a permanent resident medical officer of mature years would have prevented the differences that have unfortunately existed as regards our nursing, is purely fanciful. Had there been such an officer at King's College Hospital twenty years ago, it is very likely that the nursing would never have been handed over to St. John's House at all, and the advantages of a most excellent system would have been lost to the patients, the cause of good nursing would have suffered, and progress in this department might have been delayed for years.

The question of "nursing" is of immense importance, and cannot be too freely and openly discussed in our medical journals. It must not, however, be assumed that the system which has been pursued in Guy's or St. Thomas's or other large hospitals is the only good one, and ought on that account to be introduced into all others. Let each plan be considered on its merits. It may be that equally good results are to be obtained by several different systems, in which case there can be no harm in permitting them all to work on in peace. We all desire to do our work as efficiently and as economically as possible. It seems to me that in hospitals with less than 200 beds, to which medical schools are attached, a permanent resident medical officer is scarcely required. His salary may be saved, and three or four responsible officers, already well trained under the physicians and surgeons, and holding office for short periods of time, may with advantage be appointed. If it is admitted that our hospitals should be training-schools for doctors and nurses, such arrangements should be carried out as will provide for the efficient training of the greatest number of persons in the several departments of the profession. Practically, if you are to train thoroughly, you must give responsibility, and under the system prevailing at King's College Hospital several responsible posts have been provided for well-educated qualified

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men. These appointments have been of inestimable advantage to those who have held them, the patients have been thoroughly looked after, and the value of the system has been fully proved by ample experience. I am, &c.,

London, May 11. LIONEL S. BEALE.

THE INDUCTIVE METHOD OF REASONING.

LETTER FROM MR. J. PARKIN.

[To the Editor of the Medical Times and Gazette.]

SIR,—Inspector Lawson, in a paper recently read by him at a meeting of the Epidemiological Society, has recommended the inductive method to be applied to the investigation of epidemic diseases. Allow me to inform him, through you, that this method has been already adopted in a work—"The Remote Cause of Epidemic Diseases"—which was published by me more than thirty years ago. That work is now out of print, but the first part of a new edition of it was published last year; and the second part would have been in type now but for the fire at the Pantechnicon, which has destroyed all my papers and MSS. I hope, however, to be enabled to make good the deficiency in this respect, although not in others, ere long. I am, &c.,

Temple Club, May 1. J. PARKIN.

CREMATION.

LETTER FROM SURGEON-MAJOR C. G. LOGIE.

[To the Editor of the Medical Times and Gazette.]

SIR,—I would beg to add my admiration to the suggestions relative to the burning of bodies, or what is called cremation. The suggestion has been most carefully placed before the public, and in most masterly language, by Sir Henry Thompson, and solely from that (I do believe) a company has actually started for the purpose of carrying this most sanitary idea into practice. Without presuming to interfere with the prospects of any company, I would beg respectfully to say that I have lived long enough to know that there are in existence in *this* country those who are prevented committing crimes by sheer fear of detection by the law. At a country court the other day, while a judge was presented with white gloves, there was no crime; but *I* saw some "with foreheads villanous low, who must have great contention with their bumps if they do not now and then break a code or two." Let me, whilst admiring the idea, give one whine for England (I have no fear for Scotland),—for are we so advanced in chemical science as to be able to detect poisons, etc., in dust and ashes? It does not, I imagine, require deep thought to see in this cremation the forerunner of many a "Lucrezia Borgia."

I am, &c., COSMO G. LOGIE,

Surgeon-Major Royal Horse Guards.

Regent's-park Barracks, April 22.

MESSRS. CORBYN'S INHALER.

LETTER FROM MESSRS. BULLOCK AND REYNOLDS.

[To the Editor of the Medical Times and Gazette.]

SIR,—In an article on "Corbyn's Improved Double-Valve Inhaler," contained in the *Medical Times and Gazette* for May 9, 1874, it is stated that the appliance under notice possesses four special features that render it superior to the inhalers at present in use. The value of the improvements we do not for a moment deny; we only demur to the statements that they are novelties.

Three years ago we introduced the thermometer, water level, box lined with green baize, and two years ago added the nasal-piece. So, if these points merit any editorial commendation, we feel justified in claiming it for the "Eclectic Inhaler," in connexion with which they were first introduced.

In the "Eclectic Inhaler" the arrangement is such that the air passes readily through a number of openings, and becomes thoroughly saturated with the active medicinal agent. In Corbyn's inhaler all the air has to pass in at the side of the thermometer, where, of necessity, it causes fluctuation in the level of the mercury, and increases the labour of inspiration.

The only real novelty in "Corbyn's Improved Inhaler" is that it can be used in a lined case; but we doubt whether, under this condition, the vapour can be kept at the uniform temperature which is secured by the use of a spirit lamp, such as that in our "Eclectic Inhaler."

We are, &c., BULLOCK AND REYNOLDS.

3, Hanover-street, Hanover-square, May 11.

REPORTS OF SOCIETIES.

THE EPIDEMIOLOGICAL SOCIETY.

WEDNESDAY, APRIL 8.

Inspector-General LAWSON in the Chair.

PROFESSOR CORFIELD, M.A., M.D. (Oxon.), read a paper "On the Alleged Spontaneous Development of the Poison of Enteric Fever." After referring to the recent nature of our accurate knowledge of this fever, and the difference, in mode of origin especially, between it and typhus fever, the author reviewed the different definitions given of it by the authorities. Trousseau held that its contagious character was "incontestable"; he pointed out its strong analogy to the eruptive fevers; he believed that it was caused by a specific poison, and if under certain circumstances this might be developed spontaneously, he held precisely the same view with regard to small-pox and scarlet fever. Dr. Budd, otherwise agreeing with Trousseau, does not allow this power of spontaneous origin. Dr. Murchison, on the other hand, defines this fever as an endemic "generated and propagated by certain forms of decomposing organic matter," and opposes "the view that it is contagious in the strict sense of the term." The author maintained with Trousseau the true analogy between enteric fever and the other acute specific diseases: they agree in being febrile, in having definite durations with distinct stages; they have characteristic lesions, seldom attack the same person twice, and they are communicable from one person to another, directly or indirectly. If on the last point enteric fever is to be an exception, it is the only one. Dr. Murchison indeed says there are facts that make it "impossible to deny that enteric fever is in some way communicable by the sick to persons in health." Dr. Corfield contended that this statement concedes the whole point in dispute. No one could make such a statement of rheumatic fever or ague; and this was the whole difference between a contagious fever and a non-contagious one. The whole gist of the difference between enteric fever and other acute specific diseases lies in the fact that in it the bulk of the poison discharged from the patient is swamped in a mass of liquid; hence attendants on the sick are more rarely attacked than in such diseases as scarlet fever, where infection is thrown off by the skin and breath. The poison of typhoid as surely exists in the fresh fæces as does that of lead in a solution of sugar of lead. People may live in a room with it exposed to the air without being poisoned so long as it is not imbibed. Instead of the poison originating by the decomposition of fæcal matter, when fæces containing the poison decompose they give out bubbles of gas, which carry up mechanically various particles, including poisonous ones, into the air around: this is how it gets into the air of sewers and cesspools. Water very readily absorbs foul matters from sewer-air; and the disastrous error of connecting the waste-pipe of drinking-water cisterns directly with the house-drains was perhaps the commonest cause of the spread of this fever in the West-end of London. Of seventeen fatal cases that came under Dr. Corfield's notice last year in his district, no less than thirteen occurred in houses which had this sanitary defect—a defect still common even in the better class of houses in London. From the error of supposing fæces not to contain the poison, but to develope it in decomposition, the lapse is easy to the idea that all decomposing fæces may contain it. The difficulty of tracing a case of enteric fever to the one it came from lends support to this idea. On such a basis is the theory of the spontaneous production of poison founded. When enteric fever appears in a place, and a defect in the sewerage arrangements is discovered, we are told that the poison has been generated there. Were it to appear wherever there are these defects, wherever there was accumulation of decomposing excreta, how common, how universal almost, would it be! Dr. Corfield had inspected two places which had for years been in a condition suitable for an outbreak of this disease until a person suffering from enteric fever was brought to them, and then the disease spread like wildfire. It does not spread to every place when it is introduced, because the means for getting rid of excremental matter may be in such places sufficient. We cannot trace the source of importation in many cases, because persons

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may go about from place to place with the disease, ignorant that they are spreading poison wherever they go, which may be conveyed to distant places by water or sewer-air. The wonder really is, that we are able to trace so many cases to their sources. If there are cases where we cannot do this, are we justified in assuming a spontaneous generation of the poison? Besides, we know very well what decomposing fæces do cause; even the resulting diarrhœa is distinguishable from the specific catarrh of enteric fever. One of the commonest causes of an outbreak of simple diarrhœa in a household is a stopped-up soil-pipe, or an escape of sewer-air into the house. Something more than this is wanted to produce an acute specific disease. In conclusion, the disease is contagious. The first observers overlooked this because the channels for the transmission of the poison were not those to which they had been accustomed. There is no proof of its spontaneous origin; the speculative argument that because diseases must have originated at some time and place, therefore they may begin at any time anywhere, assumes the whole question in debate. These poisons are living germs (those in vaccine lymph can be seen); if their spontaneous origin is contended for, as well might we contend for the spontaneous origin of mites in cheese, or of butterflies. A field may be well prepared for sowing, but only the plant will grow there whose special seed has been brought. So a town may be ready to foster and spread enteric fever by its general insanitary condition, but years will pass by and no enteric fever appear there, until, in some way or another, the poison of the disease is imported.

Inspector-General Dr. J. Murray spoke to the existence of both typhus and typhoid fever in India, the former in some gaols, the latter in certain cantonments where it chiefly affected young soldiers recently arrived from Europe.

Dr. Alfred Carpenter believed enteric fever might arise *de novo* without the intervention of a preceding case. The agent for the production of typhoid may exist everywhere; and just as you get a particular fungus on decomposing bread or cheese, so, if animal excreta are decomposing, the fungus may arise that will excite typhoid; possibly the excreta resulting from one kind of diet may favour this production. Often it arose where there could be no germs of preceding cases. An outbreak of diarrhœa in a school lately attracted his attention to a leakage into the well from some closets. Three of the cases became typhoid, yet in none of the pupils using these closets had there been any illness of the kind for the previous three months. He was far, however, from limiting the propagating power of enteric fever to decomposing fæces only, but was convinced that such power resided also in the recent excreta.

Dr. Squire wished to express the satisfaction of the members of the Society at the presence among them of one who had worked so successfully at this subject as Dr. Carpenter. The facts he had this evening brought forward seemed rather to be in favour of Dr. Corfield's theory, as by it they could be more simply explained. Trousseau's diarrhœa was not always catarrhal, but really specific, and, when arising from sewer emanations, capable of producing typhoid elsewhere. Whether this were so or not, the cases of modified typhus he had published, and certain cases of infantile remittent, might spread the disease without the source ever being suspected. Professor Jürgensen had lately (*Medical Times and Gazette*, February 14, 1874) brought forward more than a hundred such cases, each doubtless able to reproduce the worst form of the disease.

Dr. Charles E. Saunders had recently traced a case of typhoid in the country to a newly constructed cesspool, with no means of ventilation, but could not discover any pre-existent case.

Dr. Corfield, in reply, protested against the notion that a disease must be spontaneously developed because of failure in tracing a connexion with a previous case: one positive instance was of more value than many negative. The illustration given by Dr. Carpenter was singularly unfortunate, as the mould on bread and cheese had not been shown to be developed spontaneously—indeed, the evidence that this could not be so developed was, he held, overwhelming. He (Dr. Corfield) believed that many disease-germs were organised living beings, evolved from pre-existing living organisms, differing in a slight degree only from their derivatives, and that here the principles of the Darwinian theory might be applied with success. His end had been attained. He had this evening the opportunity of opposing what he believed to be erroneous views—views mischievous, as tending to discourage all attempts at stamping-out the disease by destroying the poison at the earliest possible moment after its exit from the body.

CLINICAL SOCIETY.

Friday, April 24.

Prescott Hewett, F.R.C.S., President, in the Chair.

Certain eminent physicians and surgeons were recommended by the Council for election as honorary members of the Society. The names were ordered to be suspended for one month, in accordance with the by-laws.

Dr. Anstie read, for Mrs. Garrett-Anderson, notes of a case of Cancer of the Transverse Colon, producing Sphacelus of the Wall of the Abdomen. The patient was a woman, aged sixty-eight, and presented, on being first seen by Mrs. Anderson at the Women's Hospital, December 9, no distinctive signs of malignant disease. A slightly movable lump, which existed on the right of the navel, was quite painless; and it was at first hoped that it might be mere fæcal accumulation. Purgatives at first diminished the swelling, and seemed to make it softer. Thirteen days after her first visit, however, some pain came on, and she was taken into the hospital the next day. By this time, sphacelus of the skin had already commenced, and it was evident that there was a communication between the bowel and the surface. The treatment consisted of opium and brandy given by the mouth, and disinfectant poultices applied to the sphacelated part. The woman sank and died on December 30, or twenty-one days from her first being seen, and one week after her admission to the hospital. Post-mortem examination showed that the malignant disease of the transverse colon was primary, and that there was no cancerous disease in any other part of the body. The bowel became adherent to the abdominal wall, and a perforation took place, through which fæcal matter passed into the muscular and subcutaneous cellular tissue, causing general cellulitis and sphacelus of a large portion of the skin of the abdomen. A ring of cancerous tissue almost occluded the bowel, and caused fæcal accumulation above; through this ring slow perforation had taken place, with inflammatory adhesion to, and subsequent perforation of, the successive tissues of the abdominal wall. It was an interesting fact that the colon had been diagonally twisted by the results of old omental adhesions, due to an old omental hernia. Dr. Anstie mentioned particulars of another case, in which it was at first doubtful whether an abdominal tumour consisted of an accumulation of fæces or a solid growth, which in time proved to be a mass of malignant disease. The question of diagnosis in such cases was often very difficult.

The President remarked upon the rarity with which cancer of the bowel led to sphacelus of the abdominal walls. He had seen such an occurrence once or twice, but then the cæcum was the part primarily affected. The bowel at that point being closely bound down, cellulitis was easily produced, and an abscess formed. Such a disease in the colon must be much more uncommon. It was not at first easy to decide upon the exact cause of the abscess—whether it was due to simple inflammation of the cellular tissue, or to malignant disease of the bowel. Another patient, a lady, died of a tumour in the bowel, which formed a hard immovable mass in the iliac fossa.

Dr. Fitzpatrick had treated a case of cancerous tumour of the descending colon, close to the rectum, which baffled diagnosis. It caused a large accumulation of fæces in the colon, and was at one time regarded as a case of neuralgia and of abscess. Further particulars would probably be published.

Dr. D. Powell inquired if there was any objection to the administration of purgatives in such cases for the sake of diagnosis. In a case of doubt, surely a purgative would clear up the diagnosis.

Mr. T. Norton had seen Mrs. Anderson's case; the intestinal contents escaped into the cellular tissue and caused the fatal result.

Dr. Anstie remarked that, in some instances, a purgative might resolve all doubts about a case; but that, in any case where fæcal vomiting had existed for a day or two, a purgative would be inadmissible.

Mr. Henry Lee read notes of a case of Traumatic Stricture of the Trachea. The patient had attempted suicide by cutting his throat, wounding the trachea immediately below the cricoid cartilage, and had then made a second jagged wound with a penknife lower down in the trachea, on the right side. The wound healed readily; but, on two occasions afterwards, he was attacked with urgent dyspnœa, necessitating the reopening of the wound. He was therefore obliged to constantly wear a tube, but still there was a great tendency to contraction, and

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a difficulty in replacing the tube if it were removed in order to be cleaned. The patient also entirely lost his voice. This state of things continued for six months. The patient was then placed under the influence of chloroform, and the cricoid and lower part of the thyroid cartilages divided in the median line, thus freely exposing the interior of the windpipe. It was then seen that the posterior part of the upper ring of the trachea, on the left side, approached very closely to the anterior part of the lower margin of the cricoid cartilage, so that the first wound that the patient had made in his throat must have passed between these parts, and they must have been drawn together in process of cicatrisation, so that the interval between them was not more than a quarter of an inch. This upper ring of the trachea was now in a great part removed with a pair of scissors. The upper part of the wound healed readily, and, ten days after the operation, the patient, by placing his finger over the small opening which remained, could speak in his natural voice. A tube, with the inner opening directed upwards, was introduced, and he was able to go about his business as usual.

Mr. EASTES elicited from the author that the patient could wear the tube, and could also permit it to be removed; he could speak with or without it, and wore it only to prevent contraction.

Mr. THORNTON related similar cases. In one, thyrotomy was performed, and the left vocal cord removed; in another case of cut throat, there was subsequent complete stricture of the trachea. He believed that chloroform, under no consideration, ought to be given for the performance of tracheotomy, as it did not afford the patient the chance of getting rid of the blood which might run down the trachea.

Dr. MACKENZIE thought Mr. Lee's was the first case in which a ring of the trachea had ever been removed. There was always the greatest difficulty in adapting a tube passing up into the larynx. It might produce temporary benefit, but almost certainly had soon to be removed, on account of the irritation it produced. He thought there were grave objections to the use of chloroform during tracheotomy. He had never been able to do away with a tube once worn after attempted suicide. In one case food passed down the trachea and out at the wound, so that the patient could not appear in company whilst eating.

In reply to Mr. BARWELL, Mr. LEE said that the upper limb of the tracheal tube had purposely been made short, as if long it was sure to irritate the larynx.

Mr. BARWELL said that once in performing tracheotomy he was compelled to cut through a large thyroid body: there was absolutely no bleeding from the wound in the thyroid, and but very little from the surrounding parts. He never hesitated, where the thyroid body was large, to cut through it; and if the venous hæmorrhage was considerable, he cut at once into the trachea, since the bleeding always ceased as soon as air entered the lungs.

Dr. MORELL-MACKENZIE read a paper "On the Treatment of Cystic and Fibro-cystic Bronchocele," which was illustrated by photographs of patients taken before and after treatment. At the end of 1873, Dr. Mackenzie had treated sixty-eight cases of cystic goître, and nineteen of the fibro-cystic variety. Of the cystic cases, fifty-four were cured, eleven were too slight to require treatment, and in three instances cardiac disease rendered it undesirable to employ radical treatment. Of the fibro-cystic cases, eleven were cured, four greatly benefited, and one died, whilst in three cases, the disease being slight, did not call for interference; and one patient discontinued attendance during the treatment. In the cystic cases, the cyst was first emptied with a trocar at its most dependant part. A drachm or two (according to the size of the cyst) of a solution of perchloride of iron was then injected and the canula plugged, the iron being left in the cyst; after seventy-two hours, the plug was removed, and the iron solution withdrawn. The plug was then reinserted, and poultices of linseed meal kept constantly applied for a few days (sometimes for ten days or a fortnight) immediately over the cyst. In a few days, suppuration was set up, and the plug was then permanently removed, the canula, however, being allowed to remain in the cyst until the secretion was limited in amount and thin in consistence. The duration of treatment was generally from three weeks to four months, according to the size of the cyst, the usual time being from six to eight weeks; if, however, the first injection were removed too soon, the process might have to be repeated two or three times, and thus the duration of the cure would be prolonged. In the fibro-cystic cases, the cysts were first treated in the manner described, and the fibrous structure afterwards attacked with subcutaneous injections of iodine. In the only fatal case—one of fibro-cystic substernal goître—death suddenly supervened from the injection of air into a vein. In order to avoid such an accident in future, the author now uses a syringe with a long bent nozzle, which is so constructed that it cannot be completely emptied during the injection. With this precaution, he believes that the risk is entirely removed. Several cases were related in detail, and the following were the conclusions at which the author had arrived:—1. Any cystic goître which has attained the size of a hen's egg requires to be actively treated, even when the symptoms are not urgent; 2. Smaller cysts, which give rise to serious dyspnœa or dysphagia, likewise require to be treated; 3. The conversion of the cyst into a chronic abscess is the safest and most certain mode of treatment; 4. Suppuration is best set up by injections of the perchloride of iron, as the disposition to hæmorrhage is thereby effectually controlled; 5. Injections of iodine (in cystic goître) are dangerous, because often followed by sloughing; 6. There is a risk in the treatment by injections of iron, from the occurrence of too profuse suppuration when the cyst has been allowed to attain too large a size before treatment; 7. All operations on the neck are attended with the danger of air entering a vein and causing sudden death; 8. This risk is in proportion to the development of the veins, and the propinquity of the tumour to the heart; 9. In pure cystic goître, the chance of this occurrence is so slight that it may be dismissed from consideration; 10. In certain kinds of fibro-cystic goître, viz., those in which some of the original gland-substance is contained in the cyst, especially in substernal fibro-cystic goître, the risk is at its maximum; 11. The extirpation of cysts is always attended with great danger from hæmorrhage; 12. Extirpation is, nevertheless, justifiable where (the symptoms being urgent) the cyst has obtained an enormous size, and has a capacity of several pints, but is not directly connected with the trachea or œsophagus; 13. Extirpation is justifiable where such a cyst has already burst and the patient is in danger from an exhausting discharge; 14. Extirpation may also be employed for the removal of a small but distinctly pedunculated cyst, having, for instance, a capacity of two or three ounces, provided there be no large vessels in its peduncle.

Dr. YEO inquired if there was functional disease of the heart, and if it was removed by removal of the cysts.

Mr. T. SMITH inquired if the solution of iron was allowed to remain in, or if, when the parts inflamed, the cyst was laid open and treated like an abscess? or was the tube allowed to remain *in situ*, and did the discharge of pus through it continue?

In reply, Dr. MACKENZIE stated that there was no functional disease of the heart in any of his cases. He injected the solution of iron, and left it there for three days, for he had found if it was removed at the end of one or two days the operation often had to be done again. The tube remained in the wound plugged. After three days the iron was let out; the pus then escaped through the canula, which was kept *in situ* for three or four weeks, when the pus, having become thin, could easily escape.

Dr. ALTHAUS read notes of a case of Paralysis of the Radial Nerve caused by an Unusual Mode of Lead-Poisoning. The patient was a chemist, who was laid up for four months with erysipelas. Some time after, he lost the use of the muscles supplied by the radial nerve, so that he was unable to use his hand and fingers. The author found, by using electrical tests, that the paralysis must be owing to the influence of lead. There are three different forms of paralysis of the radial nerve—viz., one caused by injury, a second by the influence of wet and cold, and a third by saturnine poisoning; and these may be distinguished from each other by the following signs:—In rheumatic paralysis, the farado-muscular excitability is generally normal; there is no, or only a slight degree of, anæsthesia of the skin; and the supinator muscles suffer just as much as the extensors. Finally, in saturnine paralysis, farado-muscular excitability is lost; there is no anæsthesia of the skin; and the supinators are perfectly healthy. This last group of symptoms being present, search was made for a source of lead-poisoning; and it was at last found out that the patient had used an ounce of the unguentum plumbi subacetati compositum as a dressing for the sore on his thigh three times daily for a month. Lead is absorbed even by a surface not denuded of its cuticle; but its absorption was in this case very considerably facilitated by the highly vascular condition of the sore, and the length of time

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during which the lead ointment, which was spread on lint, remained on the surface of the wound. Iodide of potassium was given for three weeks without relief, but three applications of the continuous current completely restored the use of the limb. Dr. Althaus concluded his paper with some remarks on absorption of lead in general, and on the seat of the paralysing lesion in cases of lead-palsy, showing that the loss of power is not owing to an affection of the nervous centres or the muscles, but of the peripheral nerve-trunks. He recommended to resort early to treatment by the continuous current in these cases, as, in the latter stages of the complaint, when muscular atrophy and contraction of the antagonists has set in, the effect of the same treatment is much more slow, and not nearly as complete, as in the earlier stages of the affection.

Mr. LEE related the case of a young woman who gradually declined in health, had had loss of tone, etc., and whose ailment was traced to her occupation of shaking out clothes in a room full of dust, lead being found in the dust.

OBITUARY.

RICHARD W. TAMPLIN, F.R.C.S.

HAVING pursued his medical studies at the London Hospital, Mr. Tamplin passed the College of Surgeons in 1836, and was elected an honorary Fellow in 1843. He commenced general practice in Great Queen-street, Lincoln's-inn-fields, where he resided for some years. On the establishment of the Orthopædic Hospital by his brother-in-law, Dr. Little, Mr. Tamplin was appointed Surgeon to the institution. Shortly afterwards quarrels commenced, and were carried on with a bitterness scarcely ever surpassed. The antagonists in these unseemly disputes were Dr. Little and Mr. Tamplin. The result was the retirement of Dr. Little from the Hospital which he had founded. The City Orthopædic Hospital was the outgrowth of his retirement; but, though appointed Consulting Physician to it, he took no active part in its management or duties. The late dispute at the Royal Orthopædic Hospital is of too recent a date to require to be alluded to at length. It terminated in the retirement of Mr. Tamplin and Mr. W. Adams.

Mr. Tamplin was a surgeon of moderate abilities; he published the following:—"On Lateral Curvature of the Spine"; lectures on "The Nature and Treatment of Deformities;" contributed a "Case of Ununited Fracture of the Tibia, of twenty-four years' standing, Successfully Treated," *Medical Times and Gazette*; "Statistical Reports of 10,000 Cases of Contracture and Deformity treated at Royal Orthopædic Hospital" (*vide* Introductory Lecture), *Ibid.*, 1851; three lectures "On Deformities," *British Medical Journal*, 1860. He died at Twickenham last week, in his sixty-first year.

MEDICAL NEWS.

ROYAL COLLEGES OF PHYSICIANS AND SURGEONS, EDINBURGH.—DOUBLE QUALIFICATION.—The following gentlemen passed their first professional examination during the May sittings of the examiners:—

Hifferman, James Eld, Mallow.	Thomson, Edward William, India.

And the following gentleman passed their final examination and were admitted L.R.C.P. Edin. and L.R.C.S. Edin.:

Davies, James Harries, Llansawel.	Kearney, Thos., Dunmanway.
Gailey, John Alexander, Annan.	Pedrosa, Frank Hokins, Madras.
Gorham, Patrick Charles, Clifden.	Scott, John Malcolm, Mid-Lothian.
Hughes, Posthumous W., Flintshire.	Sharpe, Charles Edward, Coleraine.
Hurst, Hugh Frazer, Belfast.	Tyrrell, James Henry, Madras.
Inglis, Thomas, Edinburgh.	Walsh, Thomas Burke, Limerick.
Irvine, Tom Johnston, Lancashire.	Williams, Benjamin, Cardigan.
Jockel, Louis Conrad, Edinburgh.	Wynne, William, Merionethshire.

ROYAL COLLEGE OF SURGEONS OF ENGLAND.—The following gentlemen passed their primary examination in Anatomy and Physiology at a meeting of the Court of Examiners on the 12th inst., and when eligible will be admitted to the pass examination:—

Chamberlain, Edward Twyford, student of University College.
Collier, Herbert, of St. George's Hospital.
Coombs, Graham Lowe, of University College.
Cooper, John Nield, of the Manchester School.
Deck, Arthur Edward, of St. Bartholomew's Hospital.
Dobson, Henry, of the Edinburgh School.
Gilbert, Philip Francis, of Guy's Hospital.
Harker, Thomas, of the Edinburgh School.
Hodge, Arthur, of University College.
Kempe, Arthur Wightman, of University College.
Kilbride, James, student of the Dublin School.
Livesey, Ernest William, of St. Bartholomew's Hospital.
McCarthy, Justin McCallum, of Guy's Hospital.
Sherburn, John, of the Edinburgh School.
Wickham, Henry, of St. Mary's Hospital.
Williams, William Henry, of University College.
Young, Percy Gordon, of St. Mary's Hospital.

The following passed on the 13th inst., viz.:—

Armstrong, William, student of the Manchester School.
Ashe, William Percy, of St. Thomas's Hospital.
Beddoes, Charles Cecil Edgworth, of King's College.
Creed, Charles Philip, of Guy's Hospital.
Cundell, George Richard, of University College and St. Mary's Hospital.
Dodds, William John, of the Edinburgh School.
Green, Alfred Withers, of Guy's Hospital.
Heyman, Frank Gibbins, of the London Hospital.
Instone, Samuel Vaughan, of Guy's Hospital.
Jones, John Matthew, of the Edinburgh and Liverpool Schools.
Malpas, Douglas Dent, of Guy's Hospital.
Paddison, Edmund Howard, of Guy's Hospital.
Scallan, Ernest Oliver, of King's College.
Turner, Algernon Moxon, of Guy's Hospital.
Turner, Walter Pickell, of Guy's Hospital.

Of the 69 candidates examined on this occasion, 37 failed to acquit themselves to the satisfaction of the Court of Examiners, and were therefore referred to their Anatomical and Physiological studies for three months. The following were the questions for the written examination, viz.:—1. Describe the lachrymal gland, its position, and the anatomy of the various structures engaged in conducting the tears from the gland to the nose. 2. Describe the mucous surface of the duodenum, and state what changes the food undergoes in that part of the intestine. 3. Describe the attachments, and the relations in front and behind, of the quadratus lumborum muscle. 4. What is the normal temperature of the blood? and how is that temperature maintained? 5. Trace the supra-scapular artery from its origin to its termination, noticing the dissection necessary to display it, and naming its various anastomoses. 6. Describe the radius, including its articular surfaces; and mention the various muscles and tendons, in their proper relations, attached to and in connexion with it.

ROYAL COLLEGE OF SURGEONS, EDINBURGH.—The following gentlemen passed their final examination and were admitted Licentiates of the College during the May examinations:—

Carey, William, India.	Reid, Alexander William, Ceylon.
Coldstream, Alex. R., Edinburgh.	Law, William George Lemuel, Samoa, South Pacific.
Denholm, Andrew, Duddingston.	Stewart, Alexander Kenneth, India.
Pithie, John Young, Kirkcaldy.	

APOTHECARIES' HALL.—The following gentlemen passed their examination in the Science and Practice of Medicine, and received certificates to practise, on Thursday, May 7:—

Allden, John Horatio, Woodhouse, near Ely.
Ilott, Herbert James, Bromley, Kent.
Rayner, John Alexander, Hackney.
Shannon, Thomas Edward, Grantham.

THE APOTHECARIES' HALL OF IRELAND.—At the April examinations the following gentlemen obtained the licence to practise Medicine and Pharmacy:—

Allingham, Edward.	Kenny, Robert D.
Conway, James S.	O'Ryan, John P.
Gilmer, Robert.	Roberts, Thomas M.
Gregg, Francis B.	Sparrow, Charles B.
Howlin, William.	

The following passed the preliminary examination in Arts:—

Allen, William H.	Hornock, George Anthony.
Denning, Charles Ernest.	Jackson, Joseph B.
Finigan, John.	Lennon, Edward Emmanuel.
Fitzmaurice, Joseph Alphonsus.	Wall, Robert.
Godly, Richard.	

Mr. Robert Alexander Shannon obtained the Annual Prize in Chemistry and Pharmacy. Mr. William Z. Myles was awarded the Honour Certificate of second rank.

APPOINTMENTS.

*** The Editor will thank gentlemen to forward to the Publishing-office, as early as possible, information as to any new Appointments that take place.

GUNN, R. M., A.M., M.B., and C.M. Edin.—Assistant-Physician to the Perth District Asylum.

LEIGH, RICHMOND, M.R.C.S. Eng., L.S.A.—Honorary Assistant-Surgeon to St. George's Hospital for Skin Diseases, Liverpool.

SANSOM, A. ERNEST, M.D.—Assistant-Physician to the London Hospital.

TAYLOR, G. G. STOPFORD, L.K. & Q.C.P.I.—Honorary Assistant-Surgeon to St. George's Hospital for Skin Diseases, Liverpool.

WEIR, ALEXANDER MCCOOK, M.D., L.R.C.S. Edin.—Assistant Medical Officer at the Lunatic Asylum for the County and Borough of Nottingham, at Snenton, *vice* J. Hume-Smith, M.D., resigned.

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BIRTHS.

TAYLER.—On May 8, at Claremont Villa, Lewisham High-road, the wife of Francis T. Tayler, B.A., M.B., L.R.C.P., M.R.C.S., of a daughter.

WHITEHEAD.—On May 8, at St. Andrew's Villa, Ventnor, Isle of Wight, the wife of J. L. Whitehead, M.D., of a son.

MARRIAGES.

CARR—TAYLER.—On May 6, at the parish church, Trowbridge, Jonathan, eldest son of Isaac Carr, Esq., of Twerton, Bath, to Emily Marian, second daughter of Christopher Tayler, M.R.C.S. Eng., L.S.A., of Trowbridge.

COWAN—PEACOCK.—On May 12, at St. Marylebone parish church, London, James Moffat Cowan, M.D., to Jessie, daughter of Andrew Peacock, Esq., Edinburgh.

EDWARDS—BANFIELD.—On May 5, at the parish church, St. Mary's, Scilly Isles, Cornwall, Alfred Edwards, M.R.C.S., L.S.A., third son of T. Edwards, Esq., of St. Mary's, Scilly, to Annie Frances, second daughter of F. Banfield, Esq., of the same place.

GRANT—HATHAWAY.—On May 6, at the Abbey Church, Bath, George Grant, Esq., Bengal Medical Establishment, to Amy Florence, eldest daughter of Charles Hathaway, M.D., Barnard House, Bath.

HILL—TUSON.—On April 16, at Allahabad, India, Charles H. Hill, Esq., of the Middle Temple, barrister-at-law, professor of law, to Fanny Chichester, youngest daughter of E. B. Tuson, Esq., Deputy Surgeon-General, British Army.

JAY—GABB.—On May 6, at St. George's, Hanover-square, Edwin Jay, M.R.C.S., Eng., L.S.A., to Elizabeth May (*née* Hector), widow of the late G. Stacpoole Gabb, surgeon, and niece of Thomas Wright, M.D., F.R.S., F.G.S., of Cheltenham.

ROWLAND—FOXCROFT-JONES.—On May 6, at St. Augustine's Church, Queen's-gate, H. Mortimer Rowland, M.D., of Malvern Wells, to Maria Antoinette, youngest daughter of Captain Foxcroft-Jones, Adjt. 1st Oxford University R.V.

WOODFORDE—WOODFORDE.—On May 7, at the parish church, Ansford, Somersetshire, Francis Cardew Woodforde, B.A., son of Francis Henry Woodforde, M.D., of Amberd House, near Taunton, to Annie, elder daughter of the late William Woodforde, Esq., of New York, and great-granddaughter of the late Colonel Woodforde, of Ansford House.

DEATHS.

BLAIR, DAVID WHYTE, son of the late D. Blair, M.D., Surgeon-General of British Guiana, at Beech House, Churchill, Somersetshire, on May 10, aged 28.

BUCHAN, LOUISA, widow of the late Alexander Buchan, M.R.C.S., of Belford, Northumberland, at 4, Abbey-place, St. John's-wood, on May 4, aged 76.

BURY, ANNE, wife of John Carleton Bury, M.D., of Wisbeach, on April 30, aged 35.

BUTTON, MARY ELIZABETH, wife of Horace H. Button, L.S.A., at 133, Grange-road, Bermondsey, on May 4, aged 49.

DALZELL, EMILY MARIA, infant daughter of Dr. Dalzell, Surgeon-Major, late Bengal Army, at 40, Kensington-park-gardens, on May 7, aged 6 months.

FOX, ALEXANDER, Surgeon-Major, late of the Bombay Presidency, in London, on April 29.

FOX, CHARLES JAMES, M.D., late of 13, Finsbury-square, on May 12, aged 75.

GRIMSHAW, VIOLET SETTIE, only daughter of T. W. Grimshaw, M.D., of 13, Molesworth-street, Dublin, at Enniskerry, co. Wicklow, on May 5, aged 4 years and 11 months.

TAMPLIN, RICHARD W., F.R.C.S. Eng., of 33, Old Burlington-street, W., at Chiswick, on May 6, in his 61st year.

VACANCIES.

In the following list the nature of the office vacant, the qualifications required in the Candidate, the person to whom application should be made, and the day of election (as far as known) are stated in succession.

CARLISLE DISPENSARY.—Assistant House-Surgeon. Candidates must be duly qualified and registered. Applications, with testimonials, to Mr. Davidson, Honorary Secretary, Devonshire-street, Carlisle.

CARMARTHEN INFIRMARY.—House-Surgeon. Candidates must be duly qualified. Applications, with testimonials, to the Secretary, 58, King-street, Carmarthen, on or before June 2.

DARTFORD UNION.—Medical Officer. Candidates must be duly qualified. Applications, with testimonials, to the Clerk's Office, Dartford, on or before May 22.

HOSPITAL FOR WOMEN, SOHO-SQUARE.—House-Physician. Candidates must be duly qualified. Applications, with testimonials, to the Medical Committee, on or before May 16.

LIVERPOOL DISPENSARIES.—Assistant Resident House-Surgeon. Candidates must be duly qualified, Applications, with testimonials, to the Secretary, 34, Moorfields, Liverpool, on or before May 27.

PARISH OF LAMBETH.—Resident Medical Officer and Dispenser. Candidates must be duly qualified. Applications, with testimonials, to Mr. Wilmot, Clerk, Guardians' Board-room and Offices, Pleasant-place, Brook-street, Kennington-road, S.E., on or before May 18.

ROYAL HOSPITAL FOR DISEASES OF THE CHEST, CITY-ROAD, E.C.—Physician. Candidates must be Fellows or Members of the Royal College of Physicians of England. Applications, with testimonials, to C. Lowther Kemp, Secretary to the Council, before June 4.

ST. THOMAS'S HOSPITAL.—Resident Assistant-Physician. Candidates must be duly qualified. Applications, with testimonials, to the Treasurer, at the office, St. Thomas's Hospital.

UNIVERSITY COLLEGE HOSPITAL.—Resident Medical Officer. Applications, with testimonials, to John Robson, B.A., Secretary to the Council, on or before May 23.

WESTERN INFIRMARY, GLASGOW.—Superintendent. Candidates must be registered medical practitioners. Applications, with testimonials, to the Honorary Secretary, on or before June 15.

WEST RIDING LUNATIC ASYLUM, WAKEFIELD.—Junior Practitioner or Senior Student, to act as Clinical Assistant. Applications, with testimonials, to Dr. J. Crichton Browne, at the Asylum, on or before May 23.

WOLVERHAMPTON AND STAFFORDSHIRE GENERAL HOSPITAL, WOLVERHAMPTON.—House-Surgeon. Candidates must be duly qualified. Applications, with testimonials, to the Chairman of the Medical Committee, on or before June 1.

UNION AND PAROCHIAL MEDICAL SERVICE.

APPOINTMENTS.

Dewsbury Union.—Henry O. Steele, M.R.C.S. Eng., L.S.A., to the Gomersal District.

Doncaster Union.—Robert Storrs, M.R.C.S. Eng., L.S.A., to the Doncaster East District.

Wandsworth and Clapham Union.—Wm. F. Sheard, L.R.C.P. Edin., M.R.C.S. Eng., L.S.A., to the Putney District.

Devon (County of).—Alexander W. Blyth, M.R.C.S. Eng., L.S.A., as Analyst.

MR. GREENWOOD has been appointed Medical Officer of Health for Ossett.

SCARLET FEVER is on the increase at Sheffield, and measles at Wolverhampton.

CHOLERA is reported to have broken out at Siam, both in the towns and country districts.

THE deaths in London last week numbered 1337, which were 170 below the average. There were forty-four fatal cases of measles.

A BILL has been introduced into the New York Legislature for the incorporation of the "New York Incremation Society," with a capital of $50,000, and power to burn the dead.

ACCORDING to the recently published census of Japan for 1872, the health of the country is good, as shown by the fact that there were 75,000 men and 118,000 women over eighty years of age.

IT is proposed to establish in Singapore a well-organised European hospital for the European seafaring community frequenting the colonial ports, and for residents in the settlements.

A MEETING of the Society of Medical Officers of Health will be held at the Scottish Corporation Hall, Crane-court, Fleet-street, on Saturday, May 16, at 7.30 p.m. The report of the Council on the following subjects will be read:—The statistical returns in the annual reports of medical officers of health. The reply to a letter from the Registrar-General in reference to the payment of the registrars of births and deaths for the weekly returns of the mortality received by the metropolitan medical officers of health. The abstract of the replies received from the provincial medical officers of health to questions in reference to returns of sickness and death. The Bill for the Compulsory Registration of Births. The Metropolitan Buildings and Management Bill. The measures desirable to be taken in support of the views of the Society with regard to the abolition of private slaughter-houses and the establishment of public abattoirs. Dr. F. T. Griffiths, Medical Officer of Health for Sheffield, will be balloted for as an extra-metropolitan member. Dr. W. H. Corfield will deliver an address on "The Prevention of Enteric Fever."

DR. BATEMAN, of Norwich, delivered a lecture in the Rue Royale Chapel, Paris, on Monday night, the object of which was to test the Darwinian speculations on the descent of man by recent researches in language. The chair was occupied by Sir John Cormack. There was a large English, American, and French audience, by whom the lecturer and his conclusions were well received. Dr. Bateman's aim was to show that articulate speech is a universal attribute of man; that language is a distinctive attribute of man; and that Broca, and all others, have failed to trace speech to a material centre. Speech, the lecturer maintained, constitutes a difference in kind between man and the lower animals. He said that none of the various theories as to the seat of language stood the test of an impartial scrutiny; and he cited three well-authenticated cases of persons who could talk, in whom the presumed seat of speech was respectively occupied by a cancerous tumour, disorganised by disease, and destroyed by the traject of a pistol-shot. With these facts in view, he asked whether speech, like the soul, might not be an attribute beyond the limits of our finite minds. He further illustrated his meaning by an allusion to a passage in Plato's dialogue on the immortality of the soul, in which a disputant with Socrates inquires if the soul be not like the harmony of the lyre: more beautiful, more divine than the lyre itself, but yet nothing

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without the lyre—vanishing when the lyre is broken. For the word *soul* substitute *speech*, and for *lyre* substitute *brain;* the instrument—that is, the brain—may be damaged, and speech may become impossible; but that does not prove that the brain is the seat of speech, although it undoubtedly proves that it is the instrument by which this attribute becomes externally manifested.

BELFAST BRANCH OF THE ROYAL MEDICAL BENEVOLENT FUND SOCIETY OF IRELAND.—The usual quarterly meeting of the committee of the Belfast branch of this Society was held on the 6th of May; Dr. T. H. Purdon, permanent president, in the chair. Several applications were submitted for the consideration and disposal of the meeting, in order to be transmitted to the parent committee for placing on the roll of grants, and seven of these were approved of. Dr. Stewart, hon. secretary, made the satisfactory communication that the medical students of the Belfast Queen's College had this year exceeded their liberal donation of last year by £2, handing in now £17. The example so worthily set by the students ought to be more generally followed by qualified members of the profession.

THE COMMITTEE OF REFERENCE AND THE CONJOINT SCHEME OF PRELIMINARY EDUCATION.—With regard to what appears in another column relating to the arrangements as to preliminary education made at Cambridge, and as there seems a chance that before long the new regulations referring to professional as well as preliminary education will come into effect, we would commend the following to the notice of those who have friends or relations preparing for medical studies:—The Committee of Reference do not consider it desirable to recommend any change in, or addition to, the existing regulations relating to preliminary education and examination, beyond advising that, in addition to the examinations already recognised by the General Medical Council, the junior local examinations conducted by the English Universities should be recognised for the preliminary examination of medical students, provided that Latin and mathematics are among the subjects included in the pass-certificate. The Committee of Reference think it probable that, with this addition, the local and other examinations instituted by the English universities, and by other bodies whose examinations are recognised by the General Medical Council, will gradually diminish the number of candidates for whom it is necessary that the co-operating medical authorities should institute a separate examination. In order, however, to meet the present necessity for such an examination, they recommend that a board of examiners on the subjects of general education be appointed annually by the Committee of Reference, so long as it may be found necessary; and that any candidate who cannot produce evidence of having passed an examination on the subjects of general education recognised by the General Medical Council be required to pass the examination conducted by this board. That the board of examiners to be appointed in accordance with the preceding recommendation be, for the present, the board now approved by the Royal College of Surgeons of England, and that the examination be under the supervision of the Committee of Reference. That the fee for admission to this examination be two guineas, and, in the case of a candidate being referred, that the fee be returned less one guinea for expenses of the examination.

SUCCESSFUL PROSECUTION FOR ILLEGAL PRACTICE AT BREST.—The practitioners of Brittany suffer most serious losses from the illegal practice of medicine and pharmacy by the religious corporations, which the authorities either cannot or will not check; and of late, a retired naval captain has established himself at Brest, and has succeeded in acquiring a considerable practice, visiting patients in the town upon just the same terms as the legal practitioners. At last the branch Medical Association determined to interfere, and appointed a committee for collecting evidence and conducting the prosecution. The result was, that he was convicted in 136 instances of illegal practice, and the accumulated penalties form the considerable sum of 1360 francs, besides the expenses.—*Union Médicale*, May 5.

NOTES, QUERIES, AND REPLIES.

He that questioneth much shall learn much.—*Bacon.*

Inquirer.—During the closing of St. George's Hospital for repairs the students will be provided at other recognised hospitals with medical and surgical practice.

B. O. H.—The medical inspection of candidates for admission to the Royal Military Academy will take place on July 6 at the Academy at Woolwich.

Mr. Hastings.—Professor Flower returned to his official duties last week.

A Country Subscriber.—The Hunterian Oration will be delivered by Mr. F. Le Gros Clark, senior Vice-President of the College.

Mr. Morris, Solicitor.—The proceedings against Dr. Matthew Bass Smith, at Clerkenwell Police-court, were adjourned to Thursday. The General Medical Council struck his name off the Register.

F.R.C.S.—The Primary Examination for this distinction will take place next week, and we understand that there is an unusual number of entries. We have not heard that the standard of examinations has been lowered. Write to the Secretary.

One Interested.—The system adopted at the Northampton General Lunatic Asylum, of never admitting patients below certain rates, the highest of which is below the usual lowest charge in private asylums, but afterwards reducing the sum if the friends of the patient prove to the satisfaction of the Committee that so much cannot be afforded, has worked very well indeed. It has enabled a number of respectable struggling families to keep their unfortunate relations above the level of pauperism, and it has at the same time been a wholesome check upon those who would meanly take advantage of the charity.

The Royal Medical Benevolent College.—A valued correspondent draws attention to the fact that, for the *five* vacant pensionerships there are *fourteen* candidates, of whom only *two* are described as having been subscribers to this excellent institution—viz., the husbands of Mrs. Garrett and Mrs. Goude. For the "Foundation Scholarships" there are eight vacancies, and no less than *forty-two* candidates; and it is a melancholy reflection that of these the parents of only *seven* were subscribers to the funds of the College—viz. (taking them in alphabetical order), Mr. Adams, Dr. Bolton, Mr. Brown, Mr. Hoskins, Dr. Morris, Mr. Sharman, and Dr. Webb.

THE ANCIENT EGYPTIANS.

TO THE EDITOR OF THE MEDICAL TIMES AND GAZETTE.

SIR,—I see that the *Medical Times and Gazette* of March 28 gives the welcome news of the improved health and return homeward of Professor Flower, and says that the Professor has been working at the ethnology and craniology of the wonderful people who built the Pyramids. *Apropos* of this, let me quote a little bit from M. Mariette, who has been acting for some years as archæologist and conservator of antiquities to the Khedive. M. Mariette, in describing the statue of Ranafer ("Notice des Principaux Monuments du Musée d'Antiquités Egyptian à Boulaq," fourth edition, page 215) in the Boulaq Museum, depicts in him all the characters of the modern Fellah: broad shoulders, stout, resolute figure, and, above all, good legs. Despite the Arab invasion, the whole population now—as is averred by the author of Murray's Guide Book—are resuming the ancient Fellah type. The language of the Copts, the surmised descendants of the ancient inhabitants, though this language is now superseded by Arabic, has been of inestimable service in supplying the words designated by the hieroglyphics. Thus, on the plea of physical likeness and of identity of language, we affirm the ancient Egyptian people to have been the ancestors of the modern Fellah.

I am, &c.,
VIATOR.

Cairo, April 24.

CASE OF SUPERFŒTATION.

TO THE EDITOR OF THE MEDICAL TIMES AND GAZETTE.

SIR,—I send you an item which may be worth recording, bearing, as it does, on superfœtation and the retention of a second ovum for days.

The history of the case was that on December 1 the patient felt generally ill (after severe work at washing), and passed a fœtus supposed to be about three months old. On the next day the placenta came away. I had not then been sent for. Patient was up and at her work on the third day, apparently well. On December 21 I was sent for, as the discharge had returned. On examining the patient, I found the uterus larger than I should expect in a young woman twenty days after a slight miscarriage. The os was slightly dilated by what felt like a clot of blood. I succeeded with some trouble in gently extracting it, and on examination found a fœtus which, when removed from membranes, was one inch and two-thirds in length, evidently about two months old. The first fœtus, according to the mother's account, was twice as large as the second. As I have every reason to believe the mother's account of the passage of the first fœtus, this was a case of superfœtation.

I am, &c.,
HENRY DACRE DEAN, M.R.C.S.

Skipton, Victoria, Australia, February 23.

Parasite.—The lines are in Montgomery's poem, "The Pelican Island"—

> "Harsh seems the ordinance that life by life
> Should be sustained; and yet, when all must die,
> And be like water spilt upon the ground,
> Which none can gather up, the speediest fate,
> Though violent and terrible, were best."

Dr. Campbell.—The first baronet, long known as Dr. Vaughan, was physician to George III., George IV., William IV., and her present Majesty, and for many years President of the Royal College of Physicians. He assumed the name of "Halford," in lieu of his patronymic, on the extinction of the baronet's family of that name, to whom he was distantly related through his mother. He was created a baronet in 1809, and died in 1844, when he was succeeded by his son, the present Sir Henry Halford.

COMMUNICATIONS have been received from—

THE SECRETARY OF THE STATISTICAL SOCIETY; Dr. A. HILL, Birmingham; Dr. WM. NEWMAN, Stamford; Mr. T. JOHN, Liverpool; Dr. SANSOM, London; Mr. J. F. WILLIAMS, Stapleton; Dr. W. H. PHILLIMORE, Sneinton; Dr. MCINTOSH, Murthly; Dr. A. C. JAMES, New Cross; Dr. BIGGS, Paris; Mr. J. W. SCOTT, Dronfield; Dr. BALLOT, Rotterdam; Sir G. DUNCAN GIBB, Bart., London; THE REGISTRAR OF THE SOCIETY OF APOTHECARIES; Mr. H. D. DEAN, Victoria; Mr. R. V. MACCARTHY, Jamaica; Mr. G. C. WITHERBY, London; Messrs. BULLOCK and

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BOOKS AND PAMPHLETS RECEIVED—

Hebra on Diseases of the Skin, vol. iii.—Tyer's Block Telegraph and Electric Locking Signals—Thorowgood's Student's Guide to Materia Medica—Hill's Report on the Health of the Borough of Birmingham—Constitution and By-laws of the New York Society of Neurology and Electrology—Report of the Northampton General Lunatic Asylum—Newman on How to make Home Healthy—Callard on the Chemistry of Fermentation—Annual Report of Charing-cross Hospital—Pettigrew on the Physiology of the Circulation.

PERIODICALS AND NEWSPAPERS RECEIVED—

Lancet—British Medical Journal—Nature—Pharmaceutical Journal—Allgemeine Wiener Medizinische Zeitung—Centralblatt für Chirurgie—Bulletin de l'Académie de Médecine—Le Progrès Medical—New York Medical Journal—Berliner Klinische Wochenschrift—La France Médicale—La Tribune Médicale—Gazette des Hôpitaux—Gazette Médicale—Gazette Hebdomadaire—New York Druggist—The Empire—Marble Arch.

APPOINTMENTS FOR THE WEEK.

May 16. *Saturday* (*this day*).

Operations at St. Bartholomew's, 1½ p.m.; King's College, 2 p.m.; Charing-cross, 2 p.m.; Royal Free, 9 a.m. and 2 p.m.; Hospital for Women, 9½ a.m.; Royal London Ophthalmic, 11 a.m.; Royal Westminster Ophthalmic, 1½ p.m.; St. Thomas's, 9½ a.m.

ROYAL INSTITUTION, 3 p.m. Mr. R. A. Proctor, "On the Planetary System."

18. *Monday*.

Operations at the Metropolitan Free, 2 p.m.; St. Mark's Hospital for Diseases of the Rectum, 2 p.m.; St. Peter's Hospital for Stone, 3 p.m.; Royal London Ophthalmic, 11 a.m.; Royal Westminster Ophthalmic, 1½ p.m.

19. *Tuesday*.

Operations at Guy's, 1½ p.m.; Westminster, 2 p.m.; National Orthopædic, Great Portland-street, 2 p.m.; Royal London Ophthalmic, 11 a.m.; Royal Westminster Ophthalmic, 1½ p.m.; West London, 3 p.m.

ANTHROPOLOGICAL INSTITUTE, 8 p.m. Meeting.

PATHOLOGICAL SOCIETY, 8 p.m. Dr. Goodhart—1. Fibroma of the Ovary; 2. Secondary Cancer of Uterine Mucous Membrane. Dr. Hilton Fagge—1. Fibroid Degeneration of Heart; 2. Repaired Fracture of Sternum; 3. Bladder after Lithotomy. Dr. Morell-Mackenzie—1. Growth from Larynx and Trachea; 2. Bronchocele from a Dog. Dr. Julius Pollock—Lung Disease in a Child. Dr. Douglas Powell—Fatal Hæmoptysis in an Infant. Dr. Th. Williams—Double Aneurism of Thoracic Aorta. Mr. Callender—Femoral Artery which had been tied with Carbolised Gut, and a series of Gut Ligatures which had been subjected to the Action of Wound-Secretions. Dr. Wickham Legg—1. Mitral Stenosis with Hypertrophy of Left Ventricle; 2. Cancer of Portal Vein. Dr. Greenfield—Cylindrical Epithelioma of the Liver. Mr. Pugin Thornton—Syphilitic Narrowing of the Trachea. Mr. Gay—1. Specimen of Adenoma; 2. Varicose Veins. Mr. Nunn—Photographs of the Effects of Injury to the Ulnar Nerve. Dr. Crisp—1. Irish Poultry Disease; 2. Diphtheria-like Membrane in Pigeons. Mr. Croft (for Mr. James West)—Fibro-Cystic Tumour of the Neck. Dr. Downe—1. Aneurism of the Arch of the Aorta; 2. Aneurism of Pulmonary Artery.

ROYAL INSTITUTION, 3 p.m. Prof. Rutherford, "On the Nervous System."

STATISTICAL SOCIETY, 7¾ p.m. Mr. W. H. Millar, "Statistics of Deaths by Suicide among British Troops." Mr. John Biddulph Martin, "The Elections of 1868 and 1874."

20. *Wednesday*.

Operations at University College, 2 p.m.; St. Mary's, 1½ p.m.; Middlesex, 1 p.m.; London, 2 p.m.; St. Bartholomew's, 1½ p.m.; Great Northern, 2 p.m.; St. Thomas's, 1½ p.m.; Samaritan, 2½ p.m.; King's College (by Mr. Wood), 2 p.m.; Royal London Ophthalmic, 11 a.m.; Royal Westminster Ophthalmic, 1½ p.m.

HARVEIAN SOCIETY, 8 p.m. Extraordinary Meeting for the Election of Trustees and Alteration of the Laws relating to the Expulsion of Members. Clinical Cases and Discussion thereon.

ROYAL INSTITUTION, 3 p.m. Mr. N. Story Maskelyne, "On Physical Symmetry in Crystals."

22. *Friday*.

Operations at Central London Ophthalmic, 2 p.m.; Royal London Ophthalmic, 11 a.m.; South London Ophthalmic, 2 p.m.; Royal Westminster Ophthalmic, 1½ p.m.; St. George's (ophthalmic operations), 1½ p.m.

CLINICAL SOCIETY, 8½ p.m. Proposed Discussion on Dr. H. Weber's "Cases of Communication of Phthisis from Husband to Wife." Dr. Donkin, "Case of Diabetes treated by Skim-Milk." Dr. Buzzard, "Case of Tumour of Cerebellum." Dr. Greenhow, "Case of Cerebral Rheumatism."

QUEKETT MICROSCOPICAL CLUB, 8 p.m. Dr. Hogg an, "On a New Instrument for Cutting Sections, both of Hard and Soft Substances, for the Microscope."

ROYAL INSTITUTION, 9 p.m. Prof. W. K. Clifford, "On the Education of the People."

VITAL STATISTICS OF LONDON.

Week ending Saturday, May 9.

BIRTHS.

Births of Boys, 1253; Girls, 1194; Total, 2447.
Average of 10 corresponding years 1864-73, 2190·3.

DEATHS.

	Males.	Females.	Total.
Deaths during the week	720	617	1337
Average of the ten years 1864-73	697·7	672·0	1369·7
Average corrected to increased population	...	...	1507
Deaths of people aged 80 and upwards	...	...	48

DEATHS IN SUB-DISTRICTS FROM EPIDEMICS.

	Population, 1871.	Small-pox.	Measles.	Scarlet Fever.	Diphtheria.	Whooping-cough.	Typhus.	Enteric (or Typhoid) Fever.	Simple continued Fever.	Diarrhœa.
West	561359	1	12	4	1	6	2	2	...	2
North	751729	...	8	1	1	10	4	2	1	7
Central ...	334369	...	3	2	...	1	...	...	...	1
East	639111	...	11	4	...	6	1	4	2	4
South	967892	...	10	5	1	13	3	6	...	7
Total	3254260	1	44	16	3	36	10	14	3	21

METEOROLOGY.

From Observations at the Greenwich Observatory.

Mean height of barometer	29·604 in.
Mean temperature	44·2°
Highest point of thermometer	61·7°
Lowest point of thermometer	34·3°
Mean dew-point temperature	35·8°
General direction of wind	N. & N.N.E.
Whole amount of rain in the week	0·02 in.

BIRTHS and DEATHS Registered and METEOROLOGY during the Week ending Saturday, May 9, 1874, in the following large Towns:—

Boroughs, etc. (Municipal boundaries for all except London.)	Estimated Population to middle of the year 1874.*	Persons to an Acre. (1874.)	Births Registered during the week ending May 9.	Deaths Registered during the week ending May 9.	Temperature of Air (Fahr.) Highest during the Week.	Lowest during the Week.	Weekly Mean of Mean Daily Values.	Temp. of Air (Cent.) Weekly Mean of Mean Daily Values.	Rain Fall. In Inches.	In Centimetres.
London	3400701	45·1	2447	1337	61·7	34·3	44·2	6·78	0·02	0·05
Portsmouth ...	120436	26·8	76	43	...	...	...	...	0·45	1·14
Norwich	82257	11·0	42	32	57·0	32·0	41·5	5·28	0·18	0·46
Bristol	192889	43·3	119	68	56·1	34·7	44·1	6·73	0·36	0·91
Wolverhampton ...	70896	20·9	55	34	62·0	31·1	44·4	6·89	0·50	1·27
Birmingham ...	360892	43·0	313	147	58·4	33·2	44·3	6·84	0·39	0·99
Leicester	106202	33·2	101	32	62·5	33·0	44·6	7·00	0·33	0·84
Nottingham ...	90894	45·5	54	26	61·9	33·1	43·6	6·44	0·29	0·74
Liverpool	510640	98·0	376	296	53·0	37·9	44·2	6·78	0·47	1·19
Manchester ...	353309	82·8	277	186	59·0	29·0	44·1	6·73	0·33	0·84
Salford	133.68	25·7	111	65	56·0	28·3	42·4	5·78	0·47	1·19
Oldham	86281	18·5	65	43	...	...	40·6	4·77	0·82	2·08
Bradford	163056	22·6	117	55	54·0	31·6	42·3	5·73	0·24	0·61
Leeds	278798	12·9	225	136	57·0	36·0	43·5	6·39	0·35	0·89
Sheffield	261029	13·3	167	135	59·0	33·0	44·3	6·81	0·12	0·30
Hull	130996	36·0	95	62	58·0	33·0	41·8	5·44	0·66	1·68
Sunderland ...	104378	31·6	84	33	...	...	...	...	...	...
Newcastle-on-Tyne	135437	25·2	128	68	50·0	35·0	40·3	4·61	0·37	0·94
Edinburgh	211691	47·8	137	94	...	...	...	...	...	...
Glasgow	508109	100·4	382	258	54·1	34·5	44·1	6·73	0·50	1·27
Dublin	314666	31·3	198	197	61·5	29·7	45·1	7·28	0·67	1·70
Total of 21 Towns in United Kingdm	7618655	36·6	5569	3348	62·5	28·3	43·3	6·28	0·40	1·02

At the Royal Observatory, Greenwich, the mean reading of the barometer last week was 29·60 in. The highest was 29·87 in. at the beginning of the week, and the lowest 29·43 in. on Friday afternoon.

* The figures for the English and Scottish towns are the numbers enumerated in April, 1871, raised to the middle of 1874 by the addition of three years and a quarter's increase, calculated on the rate which prevailed between 1861 and 1871. The population of Dublin is taken as stationary at the number enumerated in April, 1871.

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ORIGINAL LECTURES.

CLINICAL LECTURES DELIVERED AT THE BIRMINGHAM GENERAL HOSPITAL.

By BALTHAZAR FOSTER, M.D., F.R.C.P.,
Physician to the Hospital, and Professor of Medicine in Queen's College, Birmingham, etc.

LECTURE I.

(*Concluded from page 526.*)

THE autopsy was made seventeen hours after death by Dr. Carter, the resident pathologist. The rigor mortis was well marked; the lower extremities were black, dry, and gangrenous as far as the knees, but less discoloured above. There were traces of blebs having formed on the left thigh. The brain and its membranes were normal in every respect; there was no atheroma nor plugging of the arteries at the base of the brain. The right pleura contained some five or six ounces of fluid, turbid, but not purulent. Both the parietal and visceral surface of the pleura were covered with a thick irregular layer of yellowish lymph. This layer was thickest at the anterior borders of the lung, and was cheesy in spots. The right lung was covered by this thickened pleura, and appeared not to perfectly fill the chest at the lower part. This lung weighed eighteen ounces, was tough, congested, but crepitant on section, and no part sank in water. The left pleura was firmly adherent at the apex. There were some more recent adhesions at the base, and in the cavity there was about a pint of turbid serous fluid. The pleura was covered with a uniform layer of recent lymph, which was easily stripped off, disclosing the pleura studded with miliary tubercles, which were especially numerous on the opposed surfaces of the upper and middle lobes. The left lung weighed also eighteen ounces, was less tough than the right, of a reddish colour, and congested throughout. The bronchial mucous membrane was congested and covered with a thick layer of mucus. There were no miliary tubercles in either lung. There was a slight excess of fluid in the pericardium. The heart weighed eleven ounces, was normal in shape and size, and its valves, orifices, and substance were perfectly healthy. Both sides were nearly empty. The right ventricle contained a small recent clot. The left ventricle contained three branched clots, which divided dichotomously, and were apparently casts of some bloodvessels. These clots were loose and unattached in the ventricle, and on opening the auricle a similar firm, branched, pale-coloured clot was seen protruding from one of the pulmonary veins of the right lung. The inner coat of the aorta showed spots of slight fatty change. The descending thoracic and abdominal portions of the aorta were healthy. The common iliac artery on each side was filled by a firm clot; the corresponding veins were quite patent. The embolus on the right side was composed of two parts—the one softer and redder, the other paler and more dense. The pale, tough portion had formed the original embolus, and was caught on the spur at the angle of the division of the common iliac, and projected into both branches, but more especially into the external iliac. On this original embolus the remainder of the clot had been formed by coagulation. In the left iliac artery the whole of the clot was softer and redder than on the right side. It was, however, composed of two portions as on the right side, the original embolus, though smaller, having the same characters as that in the opposite artery. The clots extended upwards on both sides to within about a quarter of an inch of the bifurcation of the aorta, and downwards into both internal and external iliac arteries. The peritoneum was covered with scattered miliary tubercles, similar to those on the pleura. Some in the mesentery were as large as peppercorns, each surrounded by an areola of congestion, and themselves blackish and pigmented. The smaller tubercles were almost invariably connected with the peritoneal bloodvessels. The intestines on their outer surface were blackish in colour, had lost the healthy peritoneal smoothness, and were congested. There was no excess of fluid in the peritoneum; and except the generally increased vascularity, and the miliary tubercles, no sign of inflammatory change. The stomach and intestines were healthy. The liver weighed sixty-one ounces, was unaltered in size and shape, but presented on section a greenish hue. The gall-bladder was full. The spleen contained a hæmorrhagic infarction as large as a small pear, wedge-shaped, with the base directed outwards, and with a hard-defined margin. The infarction was in part yellowish in colour, and generally of a lighter shade than the surrounding parenchyma. The kidneys were both enlarged; the left weighed nine and the right seven ounces and a half. On the left were seen several yellowish-red roundish elevations, ranging in size from a pin's head to a small nut. On section, these were found to be the bases of conical hæmorrhagic infarctions from embolism of the branches of the renal artery, and were surrounded by a dark areola of congestion. The right kidney presented only two similar hæmorrhagic spots, but was congested. In other respects, the structure was healthy in both kidneys. The retro-peritoneal glands were unusually large, red, and vascular.

Such is a condensed account of the rich pathological study which the post-mortem examination in this case afforded. You have already seen all the morbid parts, and had a full description of them from the Pathologist. I need not speak of them further; but would call your attention to some few points of clinical interest, such as the seats of the several emboli, the occurrence of the miliary tuberculosis, the discoloration of the skin observed during life, and the pigmentation of several parts found after death.

The theory of embolism by which we explained the chief phenomena of the case, found a most complete verification in the post-mortem facts. Not only were the emboli found as was anticipated, but their origin in thrombosis of the pulmonary veins of the compressed lung was most completely established. The presence of the branched clots in the left ventricle, and the lucky discovery of an old tough clot similar to the obstructing emboli in the iliac arteries, protruding from the pulmonary vein, conclusively demonstrated the truth of our theory. The embolic process was beautifully illustrated by the several specimens which you have examined from this case. The hæmorrhagic infarctions of the spleen and kidneys, and the necrosis of the tissues of the lower limbs, form together an unusually complete picture of the results of this process. When emboli enter the circulation from the left heart, they have certain preferences in the courses they follow. Whirled along by the blood-current, the little clots commonly pass by both the innominate and other branches of the arch of the aorta, to seek their resting-place in the splenic artery, which is the most frequent seat of impaction. Next, the renal arteries are most frequently obstructed, and then come the iliacs, especially the left. This order of preference was followed in the case we are considering, as far as the splenic and renal arteries were concerned. The hæmorrhagic infarction in the spleen presented, in its alterations of colour and consistence, evidence of a somewhat longer existence than those in the kidneys; and we are justified in saying that the splenic artery received the first embolic plug from the pulmonary veins of the right side. The renal arteries had not long to wait, as we know from the symptoms connected with the kidneys, the blocking of the renal arteries took place—in part, at least—in the twelve hours immediately following the paracentesis. Some forty-eight hours later the right common iliac received its obstructing clot, and the left iliac, which is more usually obstructed than the right, had twenty-four hours longer respite. Some of the infarctions in the kidney occurred no doubt later still, although I think, from their appearance and from the restoration of the urinary secretion, that none were formed for some six days before death.

The occurrence of embolism of the renal artery was once diagnosed by the clinical sagacity of Traube, in a case of ulcerative endocarditis, in which albuminuria and hæmaturia supervened. In our case, the renal pain and the excessively small urinary secretion first attracted our attention; and when the obstruction of the right iliac occurred, the key to the explanation of these phenomena was given. The existence of a trace of albumen in the urine of our patient before the paracentesis, and the absence of hæmaturia throughout, made the diagnosis less clear. In this case the renal embolism was associated with pain in the back, and a very scanty secretion of high-coloured, dense urine, which owed its density to the large quantity of urea it contained. There was also an increase in the quantity of albumen, but there was no hæmaturia perceptible to the naked eye, and no record was made by the house-physician of the presence of any blood-cells when he examined the urine microscopically. Before passing away from this part of the case, I must refer to a question that naturally suggests itself as to the causes which produced the

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thrombosis in the right pulmonary veins. It is certain that this coagulation does not happen frequently, and I can offer no explanation of its occurrence in this case beyond the condition of the lung. From the history of the patient, it seems to me that the lung had partly expanded after its first compression, and had been compressed again by an increase in the amount of effusion prior to the patient's admission to the hospital. In these conditions of long-continued partial compression, it is possible, I think, that coagulation may have been favoured in some branches of the pulmonary veins, which, receiving no blood from the corresponding pulmonary arteries, may have yet been filled by a reflux from the larger pulmonary veins. That such thrombosis, however it was produced, is very rare, is proved by the infrequency of such accidents after paracentesis as those described in this case. Rare as it undoubtedly is, there are conditions yet to be discovered which account for its occurrence. This case has taught us the fact; others must demonstrate the conditions of its production.

Let us now pass on to consider the miliary tubercle. "Pleurisy is a disease full of surprises," and there was yet another surprise for us in the discovery of the tuberculosis after death. The man's temperature when he was admitted, and for some days after the use of the aspirator, indicated no mischief of this kind. The turbercle could hardly have been latent, but was most probably developed after the operation, from the absorption of the cheesy matter from the right pleura. The condition of the patient when the embolism of his common iliacs occurred was so hopeless, and the production of blood-poisoning by absorption of septic matter from the lower limbs so possible, that the pleurisy was referred to this source. It proved, however, to be tubercular, and the cheesy degeneration of the old false membrane on the right pleura, which was not itself tubercular, was no doubt the source of the infecting matter. The absorption was favoured by the expansion of the lung and the restoration of the circulation through it. The eruption of tubercles on the peritoneum was a still later event. The tubercles bore unmistakable evidence in themselves of the date of their development. Whenever we examined these little bodies on the omentum, on the intestines, or on the mesentery, they were abundantly pigmented. This pigment, which was so freely deposited in parts of the peritoneum as to give it a dusky hue, was no doubt derived from the destruction of the large mass of blood in the lower limbs, and the consequent setting free of the colouring matter of the red corpuscles. To this loading of the blood with pigment we may refer the discoloration of the skin, which was similar to the icteric tinge observed in pyæmia and other analogous conditions. The liver, too, in its darkish-green colour and generally pigmented condition, testified to the amount of blood-pigment which it was called upon to transform. Wherever the red blood-cells have their birth-place, there is no doubt that in the liver they have a burial-place, and that in this organ their pigment is transformed and applied to other uses.

Lastly, I would say a word or two on the treatment in this case. We have one regret—that the evacuation of the fluid was not attempted earlier. Months before he came under our care it might have been performed, most probably with success. When the aspirator was used, it was to avert imminent death. So far the paracentesis was successful. The patient was saved; nay, more, for two days he enjoyed more comfort than he had done for weeks, and he lived many days longer than he could have done without the operation. The morbid phenomena which followed had, as far as we can see, no necessary connexion with the time or mode of the evacuation of the fluid. The clots in the pulmonary veins had certainly existed for some time; and whenever and however the circulation in the lung was restored, these clots would have found their way into the aortic system. The withdrawal of so large a quantity of fluid at a single use of the aspirator could have had no influence on the after-progress of this case. The man felt so much relief from every ounce withdrawn, and was so free from all the bad symptoms which are laid down as following the evacuation of too large a quantity of fluid, that the operation was completed. In another case I should certainly not evacuate the whole contents of the chest; it has, indeed, never been my practice to do so. Still, I cannot refer the morbid sequence in this case to the mode of operating: the evacuation of a smaller quantity would, I believe, have been followed by the same occurrences. It is these occurrences which I wish to impress on you. It is always an unpleasant task to point out a new source of danger after a common and important operation, but it is nevertheless a duty. In calling your attention to this case, I have warned you of the possibility of a like occurrence in the future, and I trust I have prepared you, whenever you meet a similar case, to study it with profit to yourselves and advantage to our art.

COMMENTARIES ON DISEASE IN CHILDREN.

By EUSTACE SMITH, M.D. Lond.,
Physician to H.M. the King of the Belgians,
Physician to the East London Children's Hospital,
Assistant-Physician to the Victoria-park Hospital for Diseases of the Chest.

(*Continued from page* 498.)

Lecture VI.—Acute Tuberculosis (*Continued*)—Tubercular Meningitis (Acute Hydrocephalus).

Acute tuberculosis of the pia mater is a very important and interesting form of the disease. The presence of the grey granulation in the pia mater is soon followed by inflammation of this membrane, and by effusion of fluid into the ventricles, and softening of the substance of the brain. This form of acute tuberculosis may occur at any period of life, but is most frequently met with between the ages of three and ten years. It is, however, far from uncommon even in infants of a few months old, but in such cases the distribution of the grey granulation is almost invariably general over the whole body, and the symptoms arising from the cranial cavity occur late in the disease, often in the course of an acute pulmonary tuberculosis, and confirm a diagnosis which the nature of the previous symptoms had already made sufficiently evident. In such cases the meningitis is spoken of as a *secondary* disease. This is the common form in children under twelve months or even two years old. At a more advanced age children are more subject to the *primary* form, in which—whether the presence of the grey granulation be or be not limited to the cranial cavity—the manifestations of cerebral distress are at any rate the first local symptoms to arise in the course of the general complaint. These local symptoms may indeed occur so early that the brain affection appears to come on suddenly in the midst of a state of health. This, however, is quite exceptional. As a general rule the meningeal disease is preceded by the signs which have been described as generally accompanying the constitutional malady, combined with others indicating a certain amount of mental disturbance and irritability.

In the large majority of cases, then, a certain amount of languor, pallor, and loss of flesh precedes by a few weeks the more special symptoms. It would be a mistake, however, to suppose that there must be necessarily any marked emaciation. The eye can often recognise no difference in the bulk of the child, but the hand appreciates a certain softness and flabbiness of the muscles, and the scales show that the actual weight of the body is diminished. The child is drowsy by day and easily fatigued; he is fretful, listless, and unwilling to play, and at night sleeps uneasily, and by fits and starts. Perhaps one of the most characteristic symptoms at this time is increased emotional sensibility. The child shows exaggerated distress at the most trifling occurrences, and when spoken to may burst into tears. This usually alternates with sluggishness of mind and drowsiness. He may show unusual stupidity at his lessons, or may stop in his play and fall asleep on the floor of the room. The temperature at this time is slightly raised, although there need be no increase of bodily heat appreciable by the hand. Cephalalgia slight in amount is often present; it is increased by movement or excitement or by a bright light. Young children may be noticed to lift the hand frequently to the head, and older children will often complain spontaneously of headache. The pain is usually referred to the crown of the head. It is often accompanied by giddiness. At the same time there are usually evidences of disturbance of the digestive functions; the appetite fails and the bowels become irregular. When such symptoms are present, the case should be always regarded with anxiety, and a careful watch should be kept over the patient so that the occurrence of any more characteristic symptoms may not escape notice. The symptoms of acute hydrocephalus fall naturally into three groups. As a part of acute general tuberculosis, the disease is a constitutional one, but, like most other general maladies, its chief manifestations result from local changes of structure. The

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local lesion is at first limited, and consists of irritation or inflammation at the base of the brain due to the presence of grey granulations in the pia mater. The irritation excited by this local condition is evidenced by symptoms of exalted activity in the parts supplied by nerves proceeding from the brain at the seat of disease. Afterwards, as effusion takes place into the ventricles and substance of the brain, other symptoms arise showing diminished nervous activity and gradual destruction of the functions of life. We find, therefore, a stage of invasion breaking in upon the indefinite symptoms of the general disease, and first marking the presence of a local lesion; this is followed by a stage of irritation during which the nervous functions are exalted; and lastly, the disease passes into the third and final stage of paralysis and death.

The first of the special symptoms pointing more directly to the nature of the disease is vomiting. The vomiting occurs not only after food has been taken, but at other times, and is often excited by raising the child up in his bed. The first occurrence of vomiting marks the first day of the disease; it is generally accompanied by constipation, which may be obstinate. Vomiting coming on in a child when the stomach is nearly empty, especially if accompanied by constipation, should always be regarded with very grave suspicion. The child looks ill; his features are more or less pinched, and the expression is anxious or spiteful. The appetite is lost, and the tongue may be furred thickly, although it is sometimes clean and moist. A convulsive fit occasionally occurs at this time, but as a rule it is a later symptom. The pulse is rapid, the breathing unequal and interspersed with sighs, and the temperature rises to between 100° and 101°. The headache increases, and is often accompanied by vertigo, so that the child will stagger in his walk, or if lying down will say that his bed is falling. He is sullen and drowsy, or excessively peevish and fretful.

The above symptoms constitute the invasion period of the disease. The beginning of the next stage—the stage of irritation—is marked by a sudden fall in the rapidity of the pulse. It becomes slow and irregular, sinking usually to between 60 and 70, but is quickened by movement. The irregularity affects rhythm as well as force. The irregularity of rhythm is particularly well marked, because, as a rule, the intermission is complete. This is the more evident on account of the slowness of the pulse. Several beats strike the finger in regular succession, then suddenly one beat is entirely omitted, and there is a pause until the rhythm is again taken up by the succeeding beat. The frequency of the intermission varies in different cases, but the intervals are seldom regular.

The headache often now becomes so violent that the child cries out with the pain. This is especially noticeable at night when gas-jets are burning, for a bright light seems to have the effect of greatly increasing the pain, and the child will be seen to squeeze his eyelids tightly together, and to cower down behind the bedclothes. At night, indeed, he is very restless, crying out frequently and showing great agitation. The cries are probably often due to delirium, for they cannot be always attributed to the headache. A sudden sharp squeal, common to this period, has been considered so characteristic of the disease that it has been called the hydrocephalic cry; but this symptom is not present in every case.

The pupils, which during the invasion period are usually small, now dilate, and are often unequal in size, although they still act regularly with light. There is very often transient strabismus of one or both eyes. If an ophthalmoscopic examination be made, the optic disc and retinal vessels will be found to be congested. The expression of the child at this time is peculiar: the brows are contracted, and there is a peevish, often spiteful, look on the face which at once attracts attention.

The respiration increases in rapidity, and continues very irregular. The child sighs deeply, and makes long pauses in breathing, the chest often remaining motionless for many seconds. His face flushes, and any—even the slightest—irritation of the skin, such as pressure with the fingers upon the forehead, is followed by a vivid blush—the *tâche cérébrale* of Trousseau. After three or four days the vomiting usually ceases, but the bowels remain confined, only acting under the influence of a stiff aperient, and the belly is retracted, and often becomes deeply hollowed.

After a few days the case enters into the final stage. The symptoms of irritation or exalted sensibility give place to those of depression, and there is a gradual extinction of the functions of life. In this period the headache ceases, but the delirium continues. There is stupor, and the sensitiveness to light is lost. Delirium and stupor often alternate with one another, the child dozing heavily for a few minutes, and then waking up with a passionate cry. At this stage the appearance of the child is very characteristic. He lies with cheeks brightly flushed, and with an expression of complete placidity, apparently asleep; but his eyelids close imperfectly, allowing some of the white to be seen, and he occasionally partially raises and then lowers his eyelids, as if an inclination to rouse himself were overcome by returning drowsiness. If the eyelids be lifted up by the finger, the pupils will be seen to be widely dilated and often unequal in size, and there may be an evident squint. The somnolence gradually deepens into coma, and the insensibility of the child is complete. At first, however, he may look up when his name is called loudly, but he shows no other sign of consciousness, and closes his eyes again almost immediately. Sometimes in these cases the child suddenly appears to wake up, and may be noticed for a few seconds to move his eyes from side to side as if looking about him, but it is difficult to say whether at this time there is any actual return of consciousness. It may, however, happen that the stupor really clears off for a while, and for several hours the intellect may appear almost natural, the child's interest in his toys returning, as if he were about to recover. But false hopes should not be excited by this apparent improvement. It will be noticed that other symptoms persist; the squint or the inequality of pupils still remains, and after a longer or shorter interval the insensibility is sure to return.

During the coma the flush on the face often fades, and is replaced by pallor. The sighing and irregularity of respiration continue. The pulse may remain slow, but generally in this stage it quickens again, and becomes rapid and more regular, although it may still occasionally intermit. A difficulty in swallowing is sometimes noticed at this time, and there may be retention of urine. If the urine be examined, it is often found to contain albumen.

Soon paralytic lesions begin to be observed. One eyelid droops; the squint may become permanent; there may be paralysis of the arm or leg—one or both—on one side, with often rigidity about the joints; the jaws may get stiff, and there may be a stiffness of the muscles at the nucha, with dragging backwards of the head. Although the child is perfectly insensible, automatic movements continue. Thus, he may push away a spoon held to his lips, or with his hand he may grasp objects within his reach, as the bars of his cot. In such a state a child may be seen lying, with half-closed eyes, perfectly motionless on one side of his body, while the other side is in constant movement, the knee being alternately raised and lowered, and the hand wandering to his head or lips, or being thrown about on the bedclothes.

Tremors and convulsive movements generally occur at this time. The eyeballs can be seen through the half-shut lids to have a rapid quivering movement; convulsive twitchings take place on one side of the face or in one or more of the limbs, and subsultus tendinum greatly interferes with observation upon the rapidity of the pulse. The temperature rises from 101° to 103° or higher, and sometimes before death may mount to 106° or 108°. Occasionally, however, instead of rising, the temperature falls, and during the last few hours of life the heat of the body, as registered by a thermometer placed within the rectum, may be below—sometimes very considerably below—the level of health.

In cases where ossification of the cranial bones is still incomplete, the fontanelle during the whole of this time may be depressed. Even in cases where bending back of the head is a prominent symptom, and where a post-mortem examination shows large effusion, with much flattening of the convolutions, the fontanelle, so far from being elevated, has been noted to be depressed below the level of the surrounding bones from the beginning to the end of the disease. The state of the fontanelle must not, therefore, be relied upon as a test of the amount of effusion. Towards the end of this stage the constipation often yields to a slight relaxation of the bowels. The motions, which are very offensive, are, with the urine, passed in the bed.

Ophthalmia often occurs before death, and the cornea may become ulcerated. Death may take place in a convulsive fit, or the child may pass away quietly. The end is usually preceded by aphthæ of the mouth, swelling of the previously sunken abdomen by gaseous distension, frequent pulse, profuse sweating, and copious secretion into the air-passages of the

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lungs, for on auscultation much fine bubbling rhonchus may be heard all over the chest.

To complete the picture of this form of tuberculosis, some variations in the symptoms must be noticed. Thus, the bowels are not always confined in the beginning; sometimes they are relaxed, with liquid offensive stools, but the looseness soon gives place to constipation, which then persists to nearly the end of the disease.

Again, the pulse may be infrequent from the very first, or, if rapid in the beginning, may soon fall and remain infrequent until the close. In other cases its rapidity may be maintained until a few days before death. Different cases will be found to vary greatly in this respect, but in all the pulse, if carefully watched, may be noted to be infrequent at some period of the disease, if only for a few hours. The pulse of tubercular meningitis is excited by very slight movements, and therefore it is important that observations upon its rapidity should be made while the child is quiet.

The temperature also is subject to no fixed rule. In the majority of cases it is only moderately raised, and for days together may maintain a uniform level of less than 100°. Thus, in a boy aged six years, the evening temperature on the eleventh day was 99·2°, and on the twelfth, thirteenth, and fourteenth days 99°, after which it became more elevated. This is exceptionally low, but until towards the end of the disease the mercury seldom reaches higher than 102° in the evening.

The *tâche cérébrale* is not a constant symptom, and the amount of redness produced by irritation of the skin will be found to vary very much in different cases. It is often not greater than that produced by the same means in a healthy child. The headache also is very variable—sometimes it is exceedingly violent and paroxysmal, and appears to be accompanied by tenderness of the scalp; at other times it is so slight as to be scarcely complained of; but in almost all cases the discomfort produced by a bright light may be observed. In the same way the intensity of most of the symptoms will be found to differ very much in different cases—sometimes one, sometimes another, assuming the chief prominence,—but in their main features all varieties of the disease show a very close resemblance.

The average duration of the illness, counting from the first day of vomiting, is twelve days. It seldom ends sooner than seven days or lasts longer than twenty-one.

(To be continued.)

ORIGINAL COMMUNICATIONS.

CASE OF

CIRRHOSIS AND CARCINOMA OF THE LIVER, WITH HEART DISEASE AND ASCITES.

By HENRY THOMPSON, M.D. Cantab., F.R.C.P. Lond.,
Physician to the Middlesex Hospital.

THE following case is interesting pathologically as an example of carcinoma rapidly developed and engrafted as an overgrowth on long-standing cirrhosis. Again, the physical signs in the chest were peculiar, and in this connexion the state of the heart is interesting in a clinical point of view. I was much struck during life with the characters of the pulse, which pointed strongly to the presence of aortic valvular incompetency, and with the results of auscultation, which seemed to confirm that suspicion, but at times only, and not invariably. Now and then, over and above the uniform asperity of the second sound, there appeared to be a sequel or appendage thereto—a prolongation of the sound with all the characters of a short but genuine murmur. All this is exceedingly well explained by the post-mortem appearances. There were only two segments to the semilunar valve of the aorta, and these were thickened and covered superiorly with calcified masses; the valve, however, seemed to be competent when tried by the water-test, whatever the value of that may be. In my opinion the valve during life was at times competent, at times incompetent; hence, one day we found simply a roughness in the diastolic sound, due to calcareous growths; on another we traced the prolongation aforesaid, due to an intermitting reflux of blood from artery to ventricle. A valve may be incompetent in varying degrees under a variety of circumstances connected with the ever-changing amount of blood it is called upon to hold in check from time to time; nay, if not seriously damaged, it may be competent at one time and incompetent at another. This intermittent incompetency is acknowledged to be true of the auriculo-ventricular valves; it is true, also, I am convinced, in disease of the aortic valve.

Finally, the case has a practical bearing. Is there any advantage in the oozing of fluid which sometimes follows paracentesis abdominis? I have seen great advantages many times. One case of ascites under my care made a marvellous recovery, owing, as it appeared, in great measure to continued outflow of serum from the wound in the abdomen. Is there any disadvantage or danger in prolonged percolation of fluid? I know of none, as a matter of experience; unless, indeed, the present case be an example in point. Unquestionably the leakage staved off the necessity of a second tapping, but from the accompanying evidences of irritation, and even inflammation, there are grounds for surmising that it may have been in part responsible for the peritonitis, whereof we discovered incipient manifestations after death. The oozing had ceased in the first instance on the 18th, and its cessation had been succeeded by a decided improvement. It recommenced on the 23rd. All then depends on the date of the first symptoms that betrayed the presence of peritonitis. Now, it is impossible to say whether they began on the 22nd or on the 24th, and therefore our own case is only an equivocal example. As for the remaining cases that have occurred under my care, perhaps they are insufficient in number to determine so important a point in practice. If, on a larger comparison of accumulated examples, the process of oozing should prove to be advantageous, it is a fair question to consider how far it can be artificially produced and maintained, of course without incurring the danger of admitting air into the peritoneal cavity, or of inducing peritonitis by propagation of morbid action from the wound. This, however, is a problem which must be left for the surgery of the future to solve.

Henry A., aged 60, a labourer, was admitted into the Middlesex Hospital on December 9, 1872. There was no history of cancer in his family. He had led an intemperate and somewhat dissolute life in his youth, and had contracted syphilis. At twenty years of age he had an attack of acute rheumatism. For fourteen years before admission he suffered from winter-coughs, with breathlessness on exertion, and occasional palpitation of the heart. He had been habitually a martyr to indigestion, with flatulency, foul tongue, and want of appetite. About thirteen months ago he was seized with sharp pain in the right hypochondrium, and was ill for a week. About five weeks before admission he first observed swelling of the abdomen and lower extremities.

State on Admission.—Patient pale, and much emaciated. Enormous distension of abdomen, which gives free and extensive resonance over the uppermost part, but is decidedly dull in the flanks, where fluctuation may be readily felt. The wave may also be transmitted, but with some difficulty, across the breadth of the abdomen. Considerable œdema of the lower limbs where the veins are varicose. Heart-sounds both unnaturally rough at base and along great vessels; first sound alone roughened at apex; same deficient in clearness at back. Over the third right cartilage the roughness of the diastolic sound appears at times to end in a short murmur, following the sound and propagated in the direction of the apex. Præcordial dulness abnormally extensive; slight cough and dyspnœa; pulse sharp and thrilling.

December 10.—Girth at umbilicus forty inches. No albuminuria. In the evening the breath was short and the pulse irregular.

16th.—Orthopnœa during the night; abdomen immensely distended, veins enlarged, and surface glistening. The urine showed a trace of albumen. Paracentesis was now performed, and six pints sixteen ounces of clear straw-coloured fluid were withdrawn. After operation, girth thirty-nine inches; pulse 108; temperature 99°.

17th.—Fluid has been oozing from the wound throughout the night. At 9 p.m. fluid continues to ooze; intense thirst; pulse 120; temperature 101°; nausea, but no vomiting.

18th.—Continued oozing; temperature 99°. In the evening the fluid ceased to escape. Temperature 98·8°; appetite improving.

19th.—Girth forty inches. Liver surface, rough and nodular, can be felt over the space of two or three inches below the margin of the ribs.

22nd.—Girth forty inches and a half; temperature 99°;

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pulse 96. Slight tenderness of abdomen; free fluctuation everywhere; veins again beginning to be conspicuous.

23rd.—Pulse 102; temperature 100°. Fluid has been filtering from the wound since 2 a.m.

24th.—Continued escape of serum throughout night. Girth thirty-nine inches; pulse 116. There are now both pain and tenderness in abdomen, and in the evening he vomited a quantity of greenish matter.

25th.—Slept fairly; pain relieved; no oozing; girth thirty-eight inches and a half; pulse 130. Pain and vomiting returned in the evening.

26th.—Pain continues; it is much increased by pressure. Vomiting also continues; no escape of fluid; girth thirty-nine inches and a half.

27th.—Passed a restless night. Pulse 130.

28th.—Another restless night. Pulse 126; girth forty inches; intense thirst. Legs drawn upwards, features pinched, nostrils quivering, cheeks projected with every expiratory act. At 12.15 p.m. he suddenly sank, and died in a few seconds.

Autopsy (abridged from Mr. Sidney Coupland's report).—All the heart's cavities were full of blood, especially the right, which were much dilated. Pulmonary and tricuspid valves healthy. The segments of the mitral valve were slightly thickened. In the aorta there were only two segments of the semilunar valves, the free margin of each measuring one inch and a half. Their upper surfaces were covered with firm calcified growths, but the valve itself was competent to the water-test. Right lung emphysematous anteriorly, posteriorly gorged with blood. Left lung also gorged and œdematous. The abdominal cavity contained six pints six ounces of turbid straw-coloured fluid. The pelvic peritoneum in parts, and some of the coils of the small intestines, were injected, but there was no lymph attached to the serous surface, and there were no adhesions anywhere. The liver was of great size, owing to immense enlargement of the right lobe, which on section presented hardly a trace of true gland-substance remaining; the whole lobe being constituted of white and yellowish-white material, forming irregular tracts of various size, the larger masses being soft and brain-like in colour and consistence, while the smaller were firm and overgrown with fibrous tissue. The left lobe, coarsely hobnailed on the surface, was apparently free from cancerous infiltration; the isolated bile-stained lobules representing the only normal gland-elements left. The microscopic appearances were those of carcinoma and cirrhosis, separate or conjoined. Spleen large and fibrous; capsule pale and thickened. Kidneys mottled and streaked on section; surface smooth.

AN UNUSUAL FORM OF

INTRACTABLE PROGRESSIVE ULCERATION OF BOTH CORNEÆ,

ENDING IN COMPLETE LOSS OF SIGHT.

By BOWATER VERNON, F.R.C.S.,

Ophthalmic Surgeon to St. Bartholomew's and the Great Northern Hospitals, etc., etc.

The following case, which defied all treatment during the greater part of two years, and which ended so disastrously for the patient, is, I think, very fortunately so rare that it needs no apology for its publication:—

Caroline C., aged 45, was admitted into St. Bartholomew's Hospital under my care in May, 1871, on account of a painful ulcer of the left cornea. She was a thin, unhealthy-looking woman, and appeared worn out with pain and want of sleep. She said she had enjoyed good health all her life, and had been married for twelve years, but without family. Six months previously, while stooping, she had struck the left eye against the fire-irons. The blow was not a very severe one, but caused her much pain, and she had been under medical care ever since.

Her manner was peculiar, sometimes decidedly hysterical; at others it was evident that she was in great pain. She referred her pain to the left temple and the left side of the scalp, and to the tracts supplied by the upper and middle divisions of the fifth nerve on this side. Sensation throughout these parts was perfect. There were no scars of any kind upon the forehead or nose to point to any past attack of herpes. She had lost all her back teeth, but there was not a stump nor a decayed tooth in her head.

The left eye was closed on account of extreme photophobia and lachrymation, but there was no swelling of the eyelids. There was a superficial crescent-shaped ulcer of the cornea at its junction with the sclera at the lower and outer sides. This ulcer occupied about a sixth of the cornea, with well-defined and rather undermined edges, and its floor was irregular and of a yellowish grey. There was very little redness of the surrounding conjunctiva; the cornea elsewhere was clear and transparent; the iris and anterior chamber were normal; and the pupil, though rather smaller than its fellow, was fairly active. She could count fingers readily, and could see all large objects.

There was not much in the appearance of the eye to attract especial attention, but the pain complained of was out of all proportion to the local mischief, and in spite of all remedies had been so from the commencement. For some weeks the eye was kept as far as possible completely at rest, it was most carefully dressed, and many local applications were tried, but without real improvement. At times the surface of the ulcer became smooth and glazed, and the paroxysms of pain were less frequent, yielding more to subcutaneous injections of morphia than to any other remedy; still the relief was but temporary—a fresh access of pain and increase of lachrymation was invariably followed by a fresh encroachment upon the cornea.

Her general appearance did not improve, and six weeks after admission she left the hospital, not materially better in any way. Three days afterwards her friends brought her back again. She was very ill, and had been in unceasing pain since her discharge. She was readmitted, and the ulcer was at once completely divided with a Graëfe's knife, which was passed into the anterior chamber, and then made to cut its way out across the entire base of the ulcer. The aqueous was evacuated without any prolapse of the iris, and with considerable relief to her pain. The progress of the ulcer, too, appeared arrested; it became glazed over and surrounded by new bloodvessels. It was now the latter end of July, and she again left the hospital and went into the country.

In November she presented herself again, in the same evil case as before, though, since leaving the hospital, she had had intervals in which her health improved and she had been free from pain. Now there was a papular eruption over the left side of the nose and the left forehead, and the ulceration had extended over four-fifths of the cornea, but, as before, was still superficial with an irregular base. A seton was inserted into the temple, and, as this produced no change, a free iridectomy upwards was made in December. This only seemed to increase her pain, and to be of no use whatever, for the ulceration soon involved the remaining portion of the cornea, and vision became reduced to mere perception of light. It was remarkable, however, that from this time her pain left her, the eye quieted down, the ulcer becoming healed over, and her health so improved that she again left the hospital.

It should be remarked here that, though an unhealthy-looking woman, no history whatever could be obtained of any constitutional taint of any kind. At different times, while under treatment, the eye was kept in absolute quiet by pressure-bandages; fomentations of all kinds were employed; and for considerable periods various drugs were fairly tried. Everything that medical skill in consultation could suggest was done for her, and without any appreciable result.

In February, 1872, she again came to the hospital. She had been living at her own home in Stoke Newington in fairly comfortable circumstances, but she now came on account of what appeared to be an attack of ophthalmia in the right eye. When first seen there was no appearance of ulceration, though carefully looked for. At the end of ten days, however, a small and superficial ulceration on the lower and outer margin of this cornea had made its appearance; symmetrically placed, in fact, to the seat of ulceration in the other eye, and similar in aspect and character. The ulcer was divided at its base as in the other eye, and she attended the hospital as an out-patient. After doing so for some weeks, and gaining no benefit, she ceased her visits and applied at Moorfields. While there her left eye was removed, and other treatment (of which I had no record) was adopted, without any good result, however; and she returned to my care with the corneal ulcer considerably increased in size, and her general condition as bad as ever.

From this time her symptoms were but a repetition of those already described as attending the destruction of the other eye. By fits and starts the ulceration progressed till it involv-

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the entire cornea, retaining throughout the same general characters—always superficial, always irregular,—its base appearing to be covered at times with some yellow-white substance almost like a new product, never very vascular and never attended with chemosis; but extreme photophobia and lachrymation were invariably present. At times the pain was severe, and was now referred more to the back of the scalp, but, as before, was most marked on the side of the head corresponding to the affected eye. Her general condition was most unsatisfactory, her appetite very capricious, and at times she was greatly dejected; at other times her manner was so strange, and so apparently heedless was she of the gravity of her case, as to give rise to suspicions of malingering on her part, though nothing was ever discovered to give probability to the suspicion. In spite of all care and every kind of treatment fairly tried, the disease followed the same course as in the other eye, progressing in the same insidious manner, and coming to the same termination—complete destruction of the cornea and loss of vision. As before, too, her health became much improved with the loss of her eye and with the cessation of her pain. I have seen her several times since, and she appears in every way to be in better health.

The case, which I have given as shortly as I could, does not to my mind correspond with any of the typical descriptions of corneal ulcers, nor has it ever occurred to me to meet one in any way like it; in its progress, in its symmetry, and in its disastrous ending it seems to me to stand by itself. It more nearly resembled a class of intractable chiselled ulcers as described by Lawson. But the special nervous disturbance which was clearly at work, the symmetrical manner in which the disease attacked the sound eye, and the almost complete uselessness of all and any remedy, even when most fairly and patiently tried, make Mr. Lawson's description inadequate. Where so many plans of treatment were adopted, and in vain, I am sorry that a syndectomy, as employed with success in a very intractable case by Mr. Bowman, was not performed. It seems most reasonable to connect the case with some special nervous disorder, and most probably of the fifth pair; but in many points it cannot be made to correspond with the neuro-paralytic ulcers of the cornea. So far as could be ascertained, there never was any impaired power of conduction of the fifth pair, nor any anæsthesia of the eyeball. The deeper parts of the eye were not involved, while the cornea never assumed the characteristic appearances usually met with in diseases of this pair of nerves. Nor does it correspond with the cases of herpes ophthalmicus in which the eyeball itself suffers. The eruption which was once noted on the left forehead and around the eye did not resemble that of herpes, and was at the time attributed to the sensitiveness of the skin after prolonged fomentation, and to the application of strapping. As, however, the unfortunate patient is still under observation, other symptoms may in time develope themselves and throw some light upon the origin of this very painful case.

REPORTS OF HOSPITAL PRACTICE IN MEDICINE AND SURGERY.

LONDON HOSPITAL.

CASE OF TUMOUR OF THE BRAIN.

(Under the care of Dr. RAMSKILL.)

W. S., a butcher, aged 56. When admitted into the Hospital, the patient's wife stated that one evening, about a fortnight previously, whilst sitting at tea, she observed that he dropped his cup, when she found that he had lost the use of his right hand and arm, and on the same night or night after he was lame in his right leg. No reliable information could be obtained as to what occurred during the interval between this attack and his admission into the hospital; but it would appear that this paralysis remained partial, for he was able, with the aid of a stick, to walk to the hospital. On examining him, it was evident that he had lost power in his right arm and leg; for, after raising the arm, it dropped listlessly by his side, and, by comparison, the right leg was much the weaker of the two. It was difficult, however, to estimate if he had any actual paralysis, and there was certainly no facial paralysis; but it was impossible to make him understand that we required him to close his eyes or whistle. On questioning him as to his occupation, or where he had lived, we could obtain no intelligible answer; he said "Yes" to a question, then contradicted it by saying "No." He always laid upon his back, not seeming to take much notice of anything; he had a vacant expression—in fact, his face might be termed expressionless, except at times when he frowned or cried. When his food was placed by his side, he made no effort to take it, but had to be fed. When asked if he had a good night, he said "Not very"; but his words were slowly and indistinctly uttered, and he seemed unable to enter any further into conversation. On admission, his body was found to be fairly nourished, his colour natural, and he had no incontinence of urine until two days afterwards. His heart was normal. There were no very typical signs of optic neuritis, the edges of the discs and the minute vessels being only rather less distinct than natural. After being in the hospital a short time, a bedsore appeared upon his back, and he wasted somewhat rapidly; he sometimes muttered a few words, occasionally asking for something, and seemed to understand what was said to him; but a little later, when spoken to, he would begin to cry. He gradually became more and more mindless, and sank without any convulsion or further paralysis.

Autopsy.—The only morbid change found was a tumour about the size of a walnut in the left hemisphere, involving the outer part of the corpus striatum and optic thalamus, and passing gradually and imperceptibly into the surrounding brain-substance. It was moderately firm, somewhat fibrous, and cut firmly also, and was of a yellowish-grey colour. It seemed to be a firm kind of gliomatous tumour.

Dr. Ramskill remarked:—When this patient was first seen, with the history showing that he had suddenly lost the use of his right arm and leg, without loss of consciousness, it was thought that he was most probably suffering from white softening of the left hemisphere. There was no heart disease or other condition to indicate that the vessels were probably plugged by emboli; and observing his age, it was thought that a vessel might be plugged by a blood-clot, or, in other words, that thrombosis had occurred in a diseased vessel, and thus the blood-supply had been cut off from a portion of the left hemisphere, which had suffered in consequence. His mental hebetude, it was thought, might be dependent upon co-existent atrophy of the convolutions; but at the same time, doubt was entertained respecting the reliability of the history given by his wife, for it was difficult to obtain any history from her, and her statements were contradictory. She at one time said he had suffered in his head, and been greatly troubled mentally by his affairs, as she supposed; and at another time, that he was well (probably she meant she thought he was well) up to the day he was sitting at tea and suddenly dropped his cup and became more or less paralysed. It would seem that he had not suffered with great pain in his head compelling him to leave his work, nor had it seemingly kept him awake at night. There was no history of severe vertigo or of epileptiform seizures, and seeing the position of the tumour altogether away from the surface, we should not expect him to have had much pain or convulsions. He had not, therefore, well-marked symptoms of cerebral tumour, and their absence is explained by the exceptional position of the tumour. We were also further misled by finding the optic discs almost free from morbid change. Knowing that there is always, or nearly always, well-marked optic neuritis when there is a tumour in the brain, absence of such neuritis was thought to be in favour of softening and opposed to growth. The notes show that the optic discs were not quite healthy, and they were carefully examined by direct method, and the only change observed was the edge somewhat indistinct, and a little haziness of the disc, looking as if there was commencing optic neuritis.

TRIPLICANE DISPENSARY, MADRAS.

EXTRACT FROM THE ANNUAL REPORT OF OUT-PATIENTS FOR THE YEAR 1871.

By Honorary Surgeon MOODEEN SHERIFF.

(*Continued from page 267.*)

II. Obstetric Operations.

Case 7.—Labour Preternatural, Laborious, and Complex—Delivery by Craniotomy—Recovery.

R., aged 25, Malabar, Triplicane. On May 5, 1871, I was requested by Mrs. E. W., a midwife, to come and deliver a woman who was about thirty hours in labour, and required

to be delivered by an operation. I went over to the patient, and on examination found a full-grown male child born up to the shoulders, with the head still above the brim; and it had been in that condition for about sixteen or seventeen hours previous to my visit. The child was already decomposed to some extent, its neck was dislocated and somewhat lengthened by a continuous and forcible traction, and it was attached to the head only by soft parts. On account of the neck in the pelvis I was not able to measure the latter properly with my fingers, but as far as I was able to judge, it was contracted at the brim. The previous history in this case was that the patient was confined twice some years before the labour in which I saw her, and on both these occasions the labour was premature and laborious, and the child stillborn. Being pregnant again for the third time, and at her full term, she was taken in labour on the morning of the previous day, and the liquor amnii escaped in the evening about eight o'clock, soon after which the feet presented and the fœtus was born or extracted as far as the shoulders. The head did not follow the body, and the native midwives were making forcible traction the whole night till the neck was dislocated and there was fear of separating the body from the head.

On the following morning Mrs. E. W. was engaged for the management of the case. She examined the patient, and finding "the pelvis contracted at the brim, she thought it impossible to deliver her without an operation, and therefore applied to me for my assistance." Meanwhile the patient was prepared by clearing out the bowels by an enema, and emptying the bladder by a catheter.

I proceeded at once to perform craniotomy. From want of room at the brim I felt a great difficulty in feeling any part of the skull to apply the perforator. After some perseverance, however, I succeeded in feeling the mastoid portion of the left temporal bone, to which I applied the instrument, and as soon as it penetrated the bone a gush of water indicated the existence of another impediment to the passage of the head through the pelvis—viz., hydrocephalus. On enlarging the opening some more fluid flowed, and it was in all about a pint and a half. Even now the head was not extracted without difficulty, and I had to pass the crotchet into the skull, hook it to a bone, and make a strong traction, in addition to the force applied through the neck, before it was drawn down into the pelvis.

The uterus was well pressed by the midwife, but it did not contract well enough to expel the placenta in due time. After the trial of ordinary means without success, I introduced two fingers into the uterus, and found the placenta loose and detached to a great extent, but still attached by a small portion. Although this portion was beyond the reach of my fingers it separated pretty easily by careful and gradual traction, and the placenta was removed entirely. I took this opportunity to examine the pelvis when my hand was in the vagina, and it was distinctly contracted at the brim. It was a lucky thing that the removal of the placenta was effected by the fingers; if not, I should have encountered very great difficulty in introducing my hand into the uterus.

After the removal of the afterbirth, I left the patient under the care of Mrs E. W., and she recovered without any untoward circumstance.

Case 8.—*Labour Laborious—Delivery by the Forceps—Recovery.*

Mrs. G. C., aged 16, East Indian, Triplicane. On June 5, about ten o'clock in the night, one Mr. R. C. came in great haste and requested me to see his brother's wife, who, he said, was seized with convulsions while in labour. I visited her immediately, and found, fortunately, that there were no convulsions, but rigors and shiverings. She was a very delicate young woman, a primipara, with the head of the child arrested in the cavity of the pelvis for five or six hours, and the contraction of the uterus very feeble after being very strong for some time at the commencement. The outlet of the pelvis was narrower than usual, and the head of the child larger and well ossified. The symptoms of exhaustion were just then beginning to develope, such as rigors, restlessness, vomiting, etc.

After a few doses of opium she appeared better and had a short nap, and soon after this the pains became stronger, but did not expel the child. I therefore, after waiting a sufficient time, applied the forceps and delivered a living child. Expulsion of the placenta natural. Recovery perfect and rapid.

Case 9.—*Labour Laborious and Complex—Delivery by the Forceps—Death on the Fourth Day.*

S. B., aged 25, Brahmin, Triplicane. On July 29 I saw this woman in Triplicane in a dangerous condition. She was a primipara, in the full period and in labour for thirty hours. The head of the child had been in the cavity of the pelvis for about eight hours, and the uterus ceased to contract after acting feebly and irregularly for a long time at the commencement. She had fever with delirium, and frequent stools mixed with mucus and blood. Pulse 120; respirations 30; skin hot, and tongue very dry and smooth. She was dropsical, and had a few bedsores on the loins from her long confinement to bed from dysentery and fever, previous to the labour.

As I was not quite sure of the death of the child, and as its head was low down in the cavity of the pelvis, I delivered it readily by the forceps, but it was stillborn. The uterus did not contract well, and I had to remove the placenta by the hand.

Though the patient appeared much relieved and less dropsical after the delivery, she was not free from the fever and dysentery, and died exhausted on the fourth day.

Case 10.—*Labour Laborious—Delivery by Craniotomy—Recovery.*

P. A., aged 18, Brahmin, Sydapettah. At the request of Mr. R., I saw this woman on August 9, in her first labour, which had been prolonged with the head of the child in the pelvis for eight or nine hours. She was hot, delirious, restless, and vomited everything given to her to drink. Pulse 116, respirations 28, and tongue dry. The pelvis did not appear small, yet the head was arrested and the ear could not be felt without difficulty. This was owing chiefly to the largeness of the head and inefficient uterine action. The fœtal heart was distinctly audible.

I gave her a full dose of opium (forty minims) immediately, which tranquillised her condition and produced a short sleep in about a quarter of an hour. When she awoke she felt better and fresh, but there was no distinct renewal of uterine contractions. A few doses of ergot were then administered, which brought on some pains, but they were inadequate to expel the child. Knowing that the delivery would not be effected naturally, and that a further delay would place both the mother and child in jeopardy, I proposed to deliver the patient by the forceps. Her friends were unwilling to allow the use of any instruments, and we therefore left the place.

Some hours afterwards, however, we were requested to see the patient again, and to do anything we might deem necessary. On my second visit I found the patient in a most dangerous state, with distinct signs of the death of the child. Now there was no other alternative but to remove the child by craniotomy, which I did in a few minutes under the influence of chloroform. The patient recovered.

Case 11.—*Labour Complex, with Convulsions and Injury to the Uterus—Delivery by Craniotomy—Death.*

P., aged 18, Malabar, Royapettah. On August 12, an old Malabar man came running and requested me to see his daughter in Royapettah, who was said to be in imminent danger, and as I went along with him he gave the following history of the case:—That she was a young woman about eighteen years old, a primipara, and in the full term of pregnancy. She lived with her husband in Blacktown, but came here a few days ago to remain in his house until the expected delivery was over. Though she did not complain of any particular sickness, she did not appear well, and took very little food for a few days previous. She was never subject to any kind of fits (convulsions). About eight or nine o'clock on that day (August 12) she was seized suddenly with convulsions and fell down on her face. The lips and forehead were wounded and bleeding, and there was much hæmorrhage from the vagina. As he was not at home, he could not come earlier to me.

When I saw the patient, I found everything related by the old man to be correct in the main. The convulsions were epileptic, very severe and frequent, with very short intervals, during which the patient was quite insensible, foaming at the mouth; tongue bitten and bleeding; pupils dilated; face bruised in three or four places. Pulse 100, small and soft; skin warm and moist. There was some hæmorrhage from the uterus, indicating an injury to that organ from the fall. The hæmorrhage appeared to have been very profuse at the commencement, amounting to fourteen or fifteen ounces, but at the time I examined her it was very slight. The os was dilated to the size of a quarter-rupee piece, and very soft and dilatable, the head presenting, and the membranes not ruptured. The fœtal circulation was distinctly perceptible. As she had already lost a sufficient quantity of blood, and was not yet

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quite free from bleeding, I did not think proper to take away any more of that fluid from her body by venesection, but began with dashing of cold water, and applied the same to the head after getting it shaved. In the meantime, as there was no power of deglutition, her bowels were cleared out by a purgative enema, with castor-oil and turpentine, and a large quantity of urine drawn off by a catheter. After three hours, I was disappointed to find that there was no decided improvement after so much bleeding and dashing of cold water, etc. There was neither more dilatation of the os nor any indication of pains, and the blood still continued to dribble from the vagina. Pulse 110, much weaker; the fœtal circulation still continuing, but very feebly. I now ruptured the membranes, and clapped a blister over the head and neck of the patient. After the next two hours the report is as follows:—"Is much worse. Pulse above 120, very small; respirations about 40, feeble and irregular; skin warm and dry; tongue has been bitten again, though a piece of cork was kept between the teeth. After the rupture of the membranes the bleeding has entirely ceased, and there were distinct indications of pains during the intervals of convulsions for about one hour, but none since that time. The convulsions have been less frequent, but stronger, and occasionally so strong as to threaten suffocation. The os is more dilated, soft, and dilatable; the pulsations of the fœtal heart not audible."

Having made myself sure on the last point, I delivered the child by craniotomy, and extracted the placenta by the hand. When my hand was in the uterus I felt as if it were in very warm water. A small portion of the placenta near its edge was covered with a thin coagulum of blood. After the delivery the patient appeared calm and quiet, with less frequent pulse and respirations, and there were no convulsions for some time; but, unfortunately, they came on again afterwards, and continued till she expired.

Remarks.

From some cause or other, which I am not able to explain, I have heard and seen more cases of unnatural labour in the Fourth District during the last year than in any other similar period previous to it. This was particularly the case in the second and third quarters of the year, during which period alone the whole of the cases of obstetric operations I have described above have occurred in my practice. In my practice of midwifery among the natives of this country I seldom get a case of natural labour. The cases I generally get are unnatural, complicated, and dangerous ones, requiring to be delivered by some operation or other, and under many disadvantages. The cases under examination are good examples of those I am generally called upon to attend.

In defining the above cases at their headings I have followed Denman's division of labours. For example, the first case (No. 7) is defined to be preternatural, laborious, and complex. It was preternatural on account of the feet-presentation; laborious, in consequence of the great delay and struggle in the second stage of the labour, owing to the distortion of the pelvis and hydrocephalic head; and complex, on account of the retention of the placenta. No. 7 case, then, is very remarkable for its complications and abnormal conditions, which I have just enumerated, and there is no doubt that the occurrence of so many of them in a single labour is very rare. I am not aware of any other case of this kind on record. However easy the diagnosis of a hydrocephalic head may be when that part itself presents, it is very difficult in all other presentations. Of course the difficulty is extremely great if there is another abnormal condition in addition to unnatural presentation. This was just what existed in the case under discussion, it being a footling case, with the child born up to the shoulders; and there was also a contraction of the pelvis at the brim. Under these circumstances I did not think of hydrocephalus until its existence was made known by the gush of water after the perforation of the skull.

In Case No. 8, the patient being an East Indian woman, her friends lost no time in seeking for medical aid as soon as they found her in difficulty, and expressed their willingness to any operation that might be considered necessary for her safe delivery. The forceps were accordingly used in time, and with a very favourable result to both the mother and child.

No. 9 case contrasts very unfavourably with the one I have just mentioned. This patient was not only allowed to become bedridden from a serious illness during the last part of her pregnancy, but was also neglected in labour for a long time, with the head of the child in the pelvis for about eight hours. Although the death in this case, which occurred on the fourth day after the delivery, was owing chiefly to the exhaustion from the fever and dysentery, yet it was much accelerated by the protracted labour. This was a proper case to have been delivered by inducing a premature labour about a month previous to the full term. Had this been done, the unfortunate woman might have been alive now with her child. The induction of premature labour is one of the greatest improvements in the modern practice of midwifery, and is the means of saving many lives which would otherwise be necessarily sacrificed.

The next case (No. 10) also differs unfavourably from No. 8 case; but the difference here is not so much of negligence as of unwillingness on the part of the patient's friends to allow the use of the forceps when it was urgently necessary. This unwillingness, unfortunately, as will be seen from the case, cost them the life of the child.

The complications in Case 11 were of a very dangerous nature—viz., convulsions and injury to the uterus. The convulsions were epileptiform, and their paroxysms were not only very frequent, but also of very long duration. They continued for the most part for fifteen or twenty minutes, and the interval between them was often much shorter than this. Occasionally they were so strong that there was a fear of death by suffocation. The nature of the convulsions was alone sufficient in this case to make the prognosis very unfavourable, and it was rendered still more gloomy from the injury to the uterus. The uterine hæmorrhage after the fall of the patient indicated a partial separation of the placenta, but there was more injury than this which was not suspected at the commencement. When I removed the placenta I felt the uterus so hot that I thought my hand was in very warm water. I believe this was owing to the inflammation of the uterus from the injury. I did not bleed the patient in this case on account of the uterine hæmorrhage. The latter amounted in all to about twenty ounces, and I consider this pretty copious in a native woman. If any good was to result from bleeding, it was sufficient in this case; but it was not of any avail. My object in rupturing the membranes was to check the hæmorrhage and hasten the labour towards its termination, and both these points were satisfactorily accomplished; but, unfortunately, the os did not dilate sufficiently to admit of the operation of turning before the death of the child. In spite of all the measures adopted in this case, the convulsions returned after a pause of a couple of hours following delivery, and put an end to the scene in a very short time.

(To be continued.)

POLYPUS OF THE NOSE.—At the New York Pathological Society, Dr. Keyes presented a patient from whose nose he had removed a polypus by a somewhat novel mode. The right nostril was entirely occluded, and an attempt to find the pedicle had been made without success. As much of the tumour as possible was removed by means of the long forceps, but with no relief, the remaining portion of the tumour being situated in the posterior nares. The patient being etherised, the forefinger of the left hand was passed into the entire length of the nostril, and although this was unusually small, it proved very dilatable. The forefinger of the right hand was then introduced into the mouth, and the tumour, which had already been pushed well back, was easily hooked backwards and removed entire.—*New York Medical Record*, April 15.

COD-LIVER OIL EMULSION.—This preparation, first devised by Dr. Andrews, of the Utica Asylum, is strongly recommended by Dr. Beard, as nearly destroying all taste of the oil, so that the most fastidious do not object to it. It is, however, very tedious and difficult to prepare it properly, so that chemists do not willingly undertake it unless large quantities are wanted. Some, however, prepare gallons at a time, as when properly prepared it will keep for months. Its preparation requires one or two hours. ℞. Glycoonin ʒix., ol. morrhuæ ʒiv., spt. ammon. arom. ʒj., vini Xerici ʒij., acid. phosph. dil. ʒss., ol. amygd. amar. gtt. ij.; dissolved in alcohol ʒij.—M. The glycoonin is made by beating yolks of eggs with a spatula until they are well broken, and then adding an equal measure of glycerine. Put the glycoonin first into the mortar, and then add the cod-liver oil by drops, stirring briskly all the time. A mass is produced having the consistency of soft butter, to which the other ingredients are to be added slowly in the order mentioned, stirring all the time.—*Boston Journal*, April 9.

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Medical Times and Gazette.

SATURDAY, MAY 23, 1874.

MEDICINE AS A PROFESSION.

The medical profession, when compared and contrasted with other learned professions, appears to possess two distinctive characteristics. The first is the large amount of gratuitous service which it renders to society; the second—and it is one observed and commented on by Lord Bacon—is the estimation of the value of its labour almost exclusively by the nature of the results produced by it. The amount of truth embodied in the latter distinction, and the influence which this characteristic has upon the whole constitution and policy of the profession, are not sufficiently evident without some measure of consideration. The barrister's success or failure is not determined by the number of his successful or unsuccessful cases. The clergyman's reputation does not depend upon the number of his proselytes, or the durability and efficacy of his conversions. In both these instances the credit assigned to the professional man springs more from the manner in which he performs his duties than from the nature of the results produced through his agency. And even in the more practical sphere of the military profession the approval of the public is awarded more to the nobility of courage and concordant patriotism in action than to the success which follows them as a practical and gratifying sequence. "'Tis not in mortals to command success," but popular applause is always ready for those who show publicly that they deserve it. But in the medical profession the greater part of a man's reputation must depend upon the results which transpire under his professional guidance. His patients are unable to appreciate the steps by which he proposes to reach such and such an issue. They cannot apprehend the influences by which he is led to modify or change his course of treatment. They cannot give him intelligent credit for the surmounting of difficulties which they themselves are unable to appreciate. Beyond the observation of apparent thoroughness in examination, and stray evidences of superior knowledge, the laity are naturally incapable of testing the faithfulness or accuracy of a diagnosis. Except in the grosser manifestations of therapeutic action they are unable to compare medical intention with physiological result. Consequently, in the absence of any standard element of criticism like that of eloquence in a preacher, or keen perception and ready utterance in an advocate, they estimate medical services principally by the fallacious principle of results, and only to a limited extent by incidental manifestations of tact and evidences of technical knowledge. So much is this the case that the recognition of the principle has always had a marked effect in practice. The medical man naturally concludes that if his character is to depend upon the issue of his cases, the shortest way to a certain conclusion is that which will best answer his purpose. As a consequence, empiricism has been either practically or avowedly the system of perhaps the numerical majority of medical men, and unless the course of medical investigation should be so successful as to establish a complete pharmacopœia of specific remedies, empiricism will maintain its ground. The practical patient and the empirical physician aim at the restoration of the appearances and feelings of health, rather than at the modification of diseased states in fluids, tissues, or organs. The first is a condition which the uninitiated patient can always appreciate by the feeling of well-being and exhilaration which accompanies health; the second is a condition only professionally intelligible. So that, to a great extent, the gauge by which a medical man can be popularly measured, is the nature of the results obtained by him under circumstances partly controllable, but mostly beyond the scope of any agency at his command.

"Other arts and sciences are judged of by their power and ability, and not by success or events. The lawyer is judged by the ability of his pleading, not the issue of the cause; the pilot by directing his course, and not by the fortune of the voyage; whilst the physician has no particular act that clearly demonstrates his ability, but is principally censured (judged) by the event, which is very unjust, for who can tell if a patient die or recover whether it were by art or by accident? Whence imposture is frequently extolled and virtue decried. Nay, the weakness and credulity of men is such that they often prefer a mountebank or a cunning woman to a learned physician." ("De Augmentis Scientiarum," section ix., page 3.)

Every profession has of necessity a commercial aspect, and it is the public recognition of this unsatisfactory and exclusive judgment by results which, when medicine falls into the hands of needy and nefarious and self-confident practitioners, brings the commercial element of our profession into disagreeable prominence. Every effort is made to promote popularity by the production of definite and popularly appreciable therapeutic results. Events which occur in the regular course of nature are appropriated or prognosticated as the effects of medical design; and the *vis medicatrix naturæ*, who usually

"———determines
Herself the glory of a creditor,
Both thanks and use,"

is purposely excluded from the reckoning. The mountebank takes the place of the physician, and the physician not unfrequently takes the place of nature.

The other feature which stands out in bold relief as a characteristic of the medical profession is the generosity with which it provides gratuitous advice and treatment. Owing to the manner in which the members of the profession are educated, this trait cannot be looked upon as exclusively charitable. The young practitioner makes himself acquainted with the forms of disease and the action of remedies by a personal examination of patients who receive the advice of his superiors in exchange for the opportunity they afford for the instruction of the student. The nascent clergyman practises upon his teachers and his fellow-students; the germinating lawyer learns the

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practical part of his profession at the expense of his early clients; but the medical student conducts his technical education on a system of which charity is a necessary element and mendicity a dishonourable accompaniment; for there can be little doubt that at almost every medical school the amount of gratuitous attendance on the sick is beyond the requirements of medical teaching. Both to the rank and file of the profession and to the lower orders of society this indiscriminating liberality is productive of bad effects. In many instances the advice and medicine supplied to a hospital patient is simply a fee taken from the pocket of a general practitioner. And besides, the direct injustice of the transaction, the effect upon the commercial morality of the lower classes, tells strongly against the prosperity of the doctor in general practice. A working man who has experienced the open-handed benefits of hospital treatment is sometimes placed in such circumstances that he must call in a practising surgeon. What is the result? Not unfrequently the patient estimates the value of the doctor's services not even by their result, but by the gratuitous scale of a public hospital. Consequently he repudiates the bill in a manner which is shown by London experience to be very effectual—by changing his address. Investigation shows that in more ways than one general practitioners pay for a large amount of our charitable hospital treatment. They suffer both in fortune and position by the practical acceptance of an opinion commonly held and occasionally expressed by the lower classes—that medical hospital attendance is a privilege which has been purchased for and by them, and not a charity provided for the benefit of the indigent poor and the relief of exceptional instances of temporary embarrassment through illness.

It is somewhat peculiar that the two features which are characteristic of the medical profession are both capable of being prejudicially employed. The unqualified estimation of superiority by results opens the way to trading in medicine. The injudicious administration of hospital relief lessens unfairly the patients of a class of practitioners already insufficiently recompensed, and exposes them to a profitless acquaintance with the dishonesty of men and women who have been taught by hospital experience to under-estimate the pecuniary value of medical skill. Both evils admit of reformation, and both are dependent upon the inaction, and removable by the energy, of the medical profession itself.

MEDICAL EXPERTS IN THE HANDS OF A "BARRISTER-AT-LAW."

There is a pretty widely spread opinion that in many complicated cases in law the special experience and knowledge of medical and other scientific experts are of considerable use in directing the court in the administration of justice. That in many cases, criminal and otherwise, justice could not be rendered without the evidence of men skilled in a particular subject, as well as that of men who are required to speak only to matters of fact occurring within the everyday range of experience. That when a right judgment depends upon special or technical knowledge which a jury and the ordinary run of men do not possess, experts have rendered important services by furnishing this desideratum for a verdict. But there is also a widespread public feeling against the admission of the evidence of experts. It has been asserted that nothing brings more discredit upon the administration of justice, because of the possibility, in all cases, of obtaining any amount of evidence on either side of any scientific question, because of the so-called absence (especially in lunacy cases) of explicit statement and the substitution for it of a "flow of hard names." It is quite true, moreover, that counsel on some occasions have behaved to experts as though they were hired advocates, and have not hesitated to imply, though without actually imputing to them, venality and untruthfulness.

If our readers desire to know the opinion entertained by at least one barrister of the value and importance of medical experts, we commend them to an article in the *Law Magazine and Review* for May. For the edification of those of our readers by whom this publication is not easily obtainable, we will quote characteristic passages from it.

The author, after making some comments on what he styles "all sorts of absurd claims" made in these days "in the name of science," and upon Dr. Maudsley, of whom he speaks as "one of the prophets of this new religion of science," says:—"The evidence of skilled witnesses have (*sic*) never met with much favour in courts of law, and it has been remarked that it is always the judges who have been the least able lawyers who have been the most willing to admit evidence of opinion." So much for the author's general estimate of the value of the evidence of skilled witnesses in the eyes of the law, and of the judges who have been willing to admit such evidence. But a few lines above there is a delicious bit of word-painting—we hope no one will think it daubing,—which we cannot resist quoting:—

"Lawyers are not likely to be turned from their staunch position by all the illogical vituperation which is poured out of such vials of wrath as are to be found in the breasts of those medical experts who have suffered a severe cross-examination, in which their threadbare theories fell to rags, and their high reputations looked but as ill-founded as their decrepit definitions and washed-out distinctions."

As this passage occurs in quite the early part of the article, we very soon settled down into an easy-chair, and felt ourselves impelled to read on with that kind of curiosity and amusement which such wild and vivid writing usually excites. We were not disappointed as we proceeded, and in one point, we are bound to say, we felt ourselves quite in agreement with the writer. We allude to the following:—"The law, by saying we will call those who saw the deed before twelve unprejudiced men, and ask them to decide upon the question of guilt or innocence, have (*sic*), it seems to us, done well." So we think; and to the opinion here expressed we give our adhesion, although we do not approve of the grammatical construction of the sentence which expresses it.

The reader will smile at the unworthy inuendo which is contained in the following extract:—

"Medical men have, to do them justice, seen the advantage which would accrue to them if they could induce Courts of Law to accept their opinions as if they were facts, and a good deal of the vituperation about 'frowning down pyschological (*sic*) truth' is occasioned by the refusal of our judicial authorities to do anything of the sort."

The author, we imagine, hardly expects anyone to take the trouble seriously to reply to all his blatant statements; and it seems quite unnecessary to remark that medical men do not want their opinions accepted as facts, but as opinions drawn from facts and observations which they can, and which a jury cannot, fully and properly reason upon.

In speaking of the decision on the guilt or innocence in any case being left to one man, the author adds:—"It would be ill-advised to trust such a function to one medical man, when the public would not be in a position to review his decision, and when the administrators of law have, from long and intelligent experience, come to the conclusion of the general worthlessness of the evidence of experts." Again, with reference to Dr. Ray's statement, that if the opinion of the expert is correct, it would be highly reprehensible in the jury to disregard it, we find the following question:—"Yes, if it is correct; but the chances being that it is incorrect, is it fair to allow the jury to be subjected to the pressure of this disturbing influence?"

Of course it did not surprise us to read that in the author's opinion the testimony of physicians of good reputation and

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standing, as to the insanity of an individual, "should always, as we have seen, be received as of very inferior worth."

But the enjoyment of the reader rises to the highest, and the thunderbolts of the writer fall the heaviest upon the doomed heads of medical experts, when, in endorsing Mr. Guernsey's view of the needlessness of expert testimony in cases of alleged insanity especially, the author indulges himself thus:—

"There is some truth in this view of the matter, and it is only natural that after a long experience of rash witnesses, who having really no right to an opinion at all, have expressed crude generalisations with an imperturbable effrontery; after a harassing experience of the unbounded demands of alienist physicians to be believed with an implicit faith which was only compatible with the grossest ignorance, lawyers should assert the utter uselessness of the evidence of scientific witnesses in relation to questions of insanity."

Nor is it only by the vehemence and intemperance of the language and assertions contained therein that the article we are referring to amuses us. The author is illogical in his reasoning as well as intemperate in his use of terms, and thus he adds still more to the reader's merriment.

Dr. Maudsley, we believe, has stated that insanity is a physical disease, that medical men alone are competent to decide upon its presence or absence, and that it is as absurd for lawyers or the public to give their opinion on the subject in a doubtful case as it would be to do so in a case of fever. The criticism upon this is as follows:—"Law has nothing to do with the investigation of diseases. If a man has lost a leg, and it was necessary to prove that he could not have walked to a certain place in consequence of that deformity, all the evidence that will be necessary will be such as proves that he was legless." In answer to this we say, Not at all. It is a common thing for men who have lost a leg to walk as far and as long as most other men can walk, and evidence ought to show whether there was anything about that deformed member, or the individual himself, which rendered the walk in question impossible in the particular case under inquiry. And this would require the evidence of a medical man, though not "as to the disease under which he laboured, and the necessity of the surgical operation," in stating which the author is battling with a shadow. "So in the case of loss of mind," the medical man is the proper and only efficient person to judge of the actual mental condition of the accused, though he would not think it necessary to explain the pathology and causes of general paralysis or of cerebral softening.

We are told that "the question that law has to decide is this, was the individual at a certain time, and in relation to a certain act, in such a relation as to knowledge and will, as that which is occupied by the majority of mankind when similarly circumstanced in connexion with like acts?" The first question the reader has to decide respecting this statement is, What does it mean? If it means this—Was the individual, at a certain time and *in relation to a certain act*, in the same position, so far as his knowledge and will are concerned, as that which would be occupied by most men under similar circumstances?—then we submit that this is not the question which the law has to decide. Universal experience has already decided it. Most men do not under any circumstances commit murder, but have their wills influenced by moral and political laws. The murderer is an exception to most men, and has not his will influenced by either moral or political laws. The question the law has to decide is, Did the individual commit the act? and if satisfied he did commit it, then the further question, if need be, Did he commit it in wilful neglect of morality and law, or in a state of insanity? This latter question cannot be decided except by the aid of those who are specially conversant with the signs and symptoms of insanity.

Take another point. The author says—

"But one thing at once became evident, and that was, that if medical men were to be allowed to express an opinion, say as to the sanity or insanity of an individual in a case where the question of guilt and innocence turned upon that of mental soundness or unsoundness, the functions of judge and jury would thereby become a farce. The jury would have simply to endorse the medical man's opinion, and the institution of trial by jury, which, as Burke has said, is the object of the whole British Constitution, including two Houses of Parliament, King, and all the rest of it, would be nothing more than an elaborate and ridiculous absurdity."

But surely this is random reasoning. The functions of judge and jury would by no means become a farce; for in the case of the crime of murder, have they not to decide upon evidence whether the accused has committed the act at all, and quite independently of the state of mind of the individual? The question of guilt or innocence, in so far as the sanity or insanity of the accused is concerned, is a further matter to be decided by them, and this they can only with safety decide upon medical evidence. If the first decision is that the accused has not committed the murder, he will be discharged; if it be that he has committed it, he will be held guilty if he be sane, and innocent if he be insane; in either case he will not be discharged. So that this flourish about the British Constitution, the King, Burke, and the two Houses of Parliament is all froth and fume, and means nothing at all.

A little further on we find it stated that the proper use of experts (for even the author, in spite of his stalking on such high stilts to overthrow them, acknowledges they are of use) is to explain to the jury how they might themselves come to a conclusion as to a disputed point, not to come to a conclusion for them. This sounds very like saying that experts are to accomplish the wonderful feat of explaining how a thing is to be done without telling what it is that has to be done. The case is given of an expert skilled in handwriting, who says, "I think these are written by the same person. I have come to that conclusion because in each of these writings the 'i' is formed thus, and the 'b' thus," and so on; and thus the jury can judge of the correctness or incorrectness of his inference. This is well enough where, as in this case, no previous *special* knowledge is required to appreciate or recognise the grounds of the inference; but who will say that the grounds upon which an opinion upon a medical case is based are appreciable or recognisable to a non-medical mind? Is a jury competent to judge of the correctness or incorrectness of the premises upon which a physician concludes that insanity exists? and has it a right to say that the conclusion is wrong? We think not, any more than twelve first year's students, to whom the symptoms and signs of pneumonia have been for the first time explained, are competent to decide whether the patient at whose bedside they are standing is suffering from the disease, or to say that the physician is wrong when he tells them such is the case.

That the jury does sometimes decide in opposition to medical experts is undoubtedly true. That medical experts have sometimes mixed themselves up as thorough-going partisans, and have assisted in the defence of persons charged with crime, is undoubtedly true, too. There is reason to think that both kinds of events will recur from time to time as long as it is allowable to search the whole medical profession to find persons ready to adopt either view of a case, and then to style them eminent members of their profession; as long, in fact, as it is possible for either side to furnish their own experts.

The scandals sometimes attaching to the evidence of experts would be removed, as Dr. Taylor has suggested, "either by the appointment of experts as assessors to the court, or by giving a power to the judge to summon to his assistance independent scientific witnesses."

The author of the article, "Medical Experts," says:—

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should almost feel inclined "to allow the jury to find a verdict, subject, if they thought right so to leave it, to an opinion upon the part of an unbiased expert that the person was sane or insane, as the case might be." By which we see that, although he would not suffer an expert to decide the question of sanity or insanity before the jury, he is disposed to give the jury power to find a verdict which shall be subject to the opinion of an expert; and thereby to render it possible for an expert to overthrow the judge and jury, and to turn the British Constitution, and the King, and the two Houses of Parliament, etc., into "an elaborate and ridiculous absurdity." We heartily commend the article in the *Law Magazine* to any of our readers who want half an hour's amusement.

THE PUBLIC HEALTH (IRELAND) BILL.

The Bill, which bears on the back the names of the Chief Secretary and of the Attorney-General for Ireland, consists of forty-three clauses. It deals with the question of organisation, Clause 2 providing for the establishment of urban and rural sanitary districts, Clauses 3 and 4 describing these districts and the sanitary authorities thereof, and Clause 10 providing for the appointment of sanitary officers.

In many essential features the Bill closely resembles the Public Health (England) Act, 1872. There are many excellent provisions in the measure, such as the power to alter sanitary districts (Clause 5), the payment of dispensary medical officers as sanitary officers (Clause 10), the compulsory powers to purchase land for hospitals (Clause 15), the union of sanitary districts (Clauses 18 to 24 inclusive), the providing for the destruction of infected bedding, etc. (Clause 38), and the deterrent penalty with regard to infected shipping (Clause 39).

But, on the other hand, we trust that the Government will see their way towards adopting some necessary amendments, if our Irish friends are to escape the "sanitary muddle" which at present exists in some parts of England.

The propriety of constituting urban sanitary authorities at all in Ireland is, also, perhaps questionable. Only fourteen out of some 120 urban districts, as proposed to be formed in Clause 3, will have populations above 10,000; and this is perhaps the smallest population which could sufficiently remunerate any properly qualified and efficient medical officer of health. Clause 5 seems to provide for the absorption of the majority of these urban districts into the adjacent rural areas of sanitary administration, but it does so at an enormous and unnecessary waste of time and trouble. But there is a further objection of a still more formidable kind. The sanitary authorities of urban districts are the town councils or township commissioners; those of rural districts are the boards of poor-law guardians. Yet whenever the Diseases Prevention Act is put into force, Clause 8 hands over the management of the urban districts to the boards of guardians of the unions in which such districts may happen to be situated. Surely this is illogical?

Clause 10 (page 4, lines 41 and 42) says—"Every medical officer of a dispensary district shall be a sanitary officer for such district." It is self-evident that the word "medical" is here required before "sanitary officer." Better still would it be to term the officer, as in the English Act, "medical officer of health." A similar change should be made in line 5, page 5, where "a superintendent [medical] officer of health" is spoken of.

This same amendment is again needed in Clause 11. What can be more absurd than to see lawyers, or even engineers, inspectors of the Local Government Board, performing medical inspections and giving medical sanitary advice? This is notably one of the great causes of the breakdown in the working of the English Act. By all means have engineering or legal inspectors, but in the name of common sense and fairness have medical inspectors also. Three or four such officers would be sufficient for the whole of Ireland.

These are a few of the suggestions from a medical point of view which we would make.

THE WEEK.

TOPICS OF THE DAY.

Mr. Sclater-Booth has announced his intention to introduce a Bill which will include a provision for extending to the metropolis the power of ordering the destruction of infected clothing, and provide compensation. The Act which gave to sanitary authorities that power did not apply to the metropolis. Looking at the quantity of infected clothing in the metropolis, the destruction of which would prevent the spread of a vast amount of disease, Mr. Sclater-Booth's Bill will prove most useful.

According to the *Eastern Budget*, an international "Cholera Congress" is to meet at Vienna next month. The questions, *inter alia*, to be discussed are the following:—1. Is cholera developed in India spontaneously, and is it always produced in other countries by transmission from abroad? 2. Is cholera capable of being transmitted by travellers from one country to another? 3. Can it be transmitted by articles used by cholera patients? 4. Can it be transmitted by provisions? 5. Can it be transmitted by living animals, or by the corpses of animals who have died from cholera, merely through the medium of the atmosphere? 6. Has the admission of fresh air to a cholera-producing agent any influence on its contagious or infectious properties? 7. How long is the period of incubation in cases of cholera-infection? 8. Are there any means of disinfection by which the cholera-producing or -spreading agent may be made positively harmless, or at least weakened, with any prospect of success? 9. Should quarantine establishments, to prevent the spread of cholera, be introduced on rivers, land, or sea? 10. Should permanent, or temporary, international stations, for the study of infectious diseases and the means of avoiding them, be established?

The Local Government Board have announced to the Metropolitan Asylums Board their concurrence in the suggestion of the latter, that on the existing temporary erections on the Hampstead site becoming dilapidated or unfit for further occupation they should be replaced by buildings of a permanent character, suitable for the reception of patients in the event of the occurrence of an epidemic of small-pox or other contagious or infectious disease.

The Mayor of Hastings has convened a public meeting at the Town Hall, on Tuesday next, for the purpose of taking into consideration the establishing of a provident dispensary.

The *Army and Navy Gazette* contains an article to which several correspondents have directed our attention. We do not entirely agree with all the statements contained in that article, and while reproducing it here we cannot admit that the Naval Medical Service is "popular" amongst our brethren. That it is less offensive to them than formerly we willingly admit, but that it is an attractive one is far from the fact. Many reforms of an important character must yet be carried out before the Naval Medical Service can be regarded as "popular." With respect to Dr. Donnet, the *Army and Navy Gazette* says:—

"A medical contemporary has of late rather gone out of its way to lecture the authorities at Whitehall on the management by them of naval medical affairs. In this week's number there is an article on the removal of Dr. Donnet from Haslar Hospital, which, if allowed to pass unnoticed, might have an injurious effect by tending to prevent young men

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from joining a popular service. Dr. Donnet is undoubtedly an able, praiseworthy officer, and has been substantially rewarded during a somewhat lengthened career. He has been thirty-four years in the Royal Navy, and out of the whole of this time he cannot reckon two years on half-pay. Again, he has not had much short of eighteen years' hospital time. It has not been deemed convenient to retain him at present on full pay, but it may be deemed certain that whenever a fitting opportunity offers itself he will again be employed; and we believe that if Dr. Donnet had been consulted the article in question would not have been published, as he cannot but admit that he has been liberally treated."

An Edinburgh University Club has been established at Manchester, its object being "to maintain good fellowship among its members and to promote the interests of the University of Edinburgh." The following gentlemen were elected office-bearers for the ensuing year:—*President:* Professor Balfour Stewart, M.A., LL.D. *Treasurer:* John Thorburn, M.D. *Honorary Secretary:* James Hardie, M.D.

Dr. Liddle, in his last quarterly report on the Whitechapel district, states that within the last three months fifty-two additional water-waste preventers have been erected in the district. There are now 257 of these appliances in action. He speaks in approving terms of the benefits resulting from them. He thinks the time has arrived when these assistants to the health and welfare of the poor should be made compulsory. It is highly to the credit of the East-end of London that the authorities of one important district, at least, have been energetic in carrying out so important a reform. We have always advocated the adoption of a constant water-supply. It has been proved, in spite of the interested opposition of the water companies, that the system does not involve any serious additional expense. It is due to Dr. Liddle on this occasion to mention with commendation this further service which he has rendered to the poor. We trust that the energy which he has displayed in this instance will be followed by all the medical officers of health in the metropolis. The thin end of the wedge has been inserted into the colossal beam, and it cannot be doubted it will be carried home ere long.

We regret to learn, from the reports of the Melbourne Hospital for 1873, that the Committee, through their chairman, are not disinclined to admit the practice of homœopathy into that institution. He states that during the year the Committee received a numerously-signed memorial asking that a portion of the hospital might be set apart for the practice of homœopathy, which received their best attention; but in considering the subject it was at once evident that, as medical officers are elected by the contributors, the Committee were powerless to dictate, or offer an opinion, as to the system of treatment which any practitioner might adopt; while, on the other hand, should it be decided to increase the present staff of physicians, all duly qualified practitioners could claim to offer themselves as candidates, and the intentions of the memorialists might not be secured. Under these circumstances, the Committee suggested that the matter should be left in abeyance until the expiry of the term of office of the present members of the staff, when a general election will be held, and greater facilities will be presented for the introduction of the proposed change in the medical administration of the hospital. It is difficult to conceive that the duties of a committee of an important hospital should not involve the expression of an "opinion" on so vital a matter. Whatever may be the number or the importance of the memorialists in favour of the introduction of homœopathy into the Melbourne Hospital, the Committee, we think, were bound to express their opinion on the subject. If the memorialists desire to found a hospital for the practice of homœopathy, let them do it on their own responsibility. This would be far better than to introduce a heresy into the practice of an institution devoted to legitimate medicine.

DISTRIBUTION OF MEDICAL OFFICERS FROM THE GOLD COAST.

Nearly the whole of the staff of medical officers of the army, who volunteered for service in the late Ashantee Expedition, have reported themselves fit for duty, and have returned or been appointed to the following stations:—Deputy Surgeon-General Sir A. D. Home, K.C.B., has joined at Dover as Principal Medical Officer of the South-Eastern District; Surgeon-Major J. E. Clutterbuck is at Bristol in charge of the 37th Brigade Depôt; Surgeon-Major D. A. C. Fraser, M.D., at Newport, Monmouthshire, with the 103rd Foot; Surgeon-Major Bleckley, M.D., C.B., has returned for duty at Netley; Surgeon-Major R. W. Jackson, C.B., is doing duty at Shorncliffe; Surgeon-Major J. E. Faught, at Chatham; Surgeon-Major J. Wiles is with his regiment the 2nd Battalion Rifle Brigade, at Winchester; Surgeons-Major F. A. Turton and E. L. Low, at Devonport, attached to the Western District; Surgeon-Major G. W. McNalty, at the head-quarters of the Medical Department in Whitehall-yard; and Surgeon-Major J. W. Murphy, at Chatham, in charge of Royal Engineers. The Surgeons have been distributed as follows:—W. Venour, to Penally; R. W. Stafford, to Portsmouth; F. R. Wilson, M.B., to Shorncliffe; A. Doig, to the 79th Highlanders, at Aldershot; R. W. Troup, M.B., to the 42nd Highlanders, at Portsmouth; W. R. Kynsey, to Netley; A. Turner, M.D., to the 82nd Regiment, at Chatham; R. H. Bolton, to the 2nd Battalion, 23rd Regiment, at Shorncliffe; C. A. Atkins, to the 1st Battalion, 7th Regiment, at Dover; J. Fleming, M.D., to the Royal Victoria Hospital, Netley; P. Smith, M.D., to the Royal Artillery, at Trowbridge; J. Maturin, to Manchester; J. Williamson, M.B., to Portsmouth; W. H. Steele, M.D., and J. F. Supple, to Aldershot; A. Macrobin, M.B., to 2nd Battalion, Rifle Brigade, at Winchester; and C. B. Jennings, to Woolwich.

Of the invalid officers returned from the war, Major Butler, C.B., and Lieutenant Sherstone, Rifle Brigade, are still unable to leave Netley Hospital, although reported to be doing very well. Brevet-Major Helden, 100th Regiment, has been ordered to a warm climate, but is not yet sufficiently recovered to travel. Captain North, 47th Regiment, is suffering from an attack of erysipelas which causes much anxiety to his friends. Another death has to be recorded in the case of Lieutenant Dillon, of the Army Hospital Corps, from the effects of fever contracted at Cape Coast Castle. Lieutenant Dillon arrived in this country in the *Thames*, about five weeks ago, his health having apparently been restored by the voyage home; he suffered from a relapse, however, and had not sufficient strength to rally.

THE UNIVERSITY EDUCATION OF WOMEN.

Mr. Cowper-Temple has given notice that he will postpone until June 12 his motion respecting the admission of women to university education. The opinion amongst those favourable to female medical education appears to be that no more will be heard at present of Mr. Cowper-Temple's Parliamentary advocacy. If the opportunity of reminding Mr. Disraeli of the time when he appeared to evince a partiality for the stronger-minded members of the fairer sex has thus escaped them, Mr. Disraeli has also lost another chance of affirming that a great deal has transpired since then. The following petition from three of the most eminent medical professors in Edinburgh University appears in the report of the Public Petitions Committee of the House of Commons:—

"The petition of the undersigned professors in the Faculty of Medicine in the University of Edinburgh humbly showeth—

"1. That a Bill has been introduced into your honourable House, entitled 'A Bill to remove doubts as to the Powers of the Universities of Scotland to admit Women as Students, and to grant Degrees to Women.'

"2. That the Bill proposes to confer on the University Court of each university in Scotland powers to enact regulations to

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admit women as students, to provide instruction for women either in separate classes or otherwise, and to grant degrees to women.

"3. That under such regulations professors in the Universities of Scotland might be called upon, in addition to their present duties, to teach women in separate classes, or along with men in mixed classes.

"4. That the University of Edinburgh is the only university which has attempted to teach women in separate classes.

"5. That the attempt was made by three of the professors of the Faculty of Medicine, and that they found the additional labour so great and so injurious that they were obliged to discontinue it.

"6. That the teaching of medicine in a university to a mixed class of young men and young women would be repugnant to the feelings of the petitioners, and opposed to the convictions of a vast majority of the educated classes of the country.

"7. That the Bill, as stated in its preamble, proceeds on the assumption that 'doubts have arisen as to the powers of the universities of Scotland to admit women as students and to grant degrees to women,' whereas it is certain that whatever doubts may have existed at one time, these have been removed by a decision of the Supreme Court in Scotland, to the effect that the charters of the universities of Scotland do not entitle women to study and graduate therein.

"8. Under these and other circumstances which might be submitted, your petitioners humbly beg that the Universities (Scotland) Bill be not passed through a second reading.

"And your petitioners will ever pray, etc.

(Signed) "R. Christison.
J. H. Balfour.
Douglas Maclagan."

Army Circular on Sanitary Precautions after Infectious Diseases.

An army circular has recently been issued, detailing the sanitary precautions which are to be invariably adopted when infectious fevers or other infectious diseases shall have occurred among the occupants of officers', non-commissioned officers', or married soldiers' quarters, or in barrack-rooms. When a case of scarlet fever occurs in quarters, the rooms are to be vacated, and the windows kept open for as long a time as practicable, to insure thorough ventilation. The furniture, floors, and all the painted woodwork are to be sponged and scrubbed, the bedding, clothes, and carpets to be thoroughly cleansed and disinfected before further use, and the ceilings to be whitewashed; the walls also, if papered, are to be repapered, the old paper being first carefully scraped off. Barrack-rooms under similar circumstances are to be thoroughly cleansed and limewashed, and in the first instance, if deemed necessary, fumigated with chlorine, nitrous acid, or sulphurous acid gas. Of the barrack bedding used by sufferers from infectious fevers prior to admission into hospital, the straw will be burnt; the remainder, together with the clothing belonging to patients but not actually in use, will, if not liable to injury thereby, be subjected to the process of boiling. Hospital bedding, clothing, etc., used by patients affected with fevers of infectious character will be treated as follows:—The hair of the mattress, etc., will be opened out, exposed to the air and beaten, and when practicable submitted to a dry heat of not less than 250° for at least one hour before being used again; the remainder of the bedding, clothing, etc., if not liable to injury thereby, will be disinfected, steeped in boiling water, exposed to the air, beaten, and afterwards washed with soap and water. Such articles of a soldier's kit as cannot be treated in the manner laid down as above will be removed to hospital, and there fumigated and exposed to the air and sun for a week, then beaten and brushed. At foreign stations, after the occurrence of yellow fever or other infectious disease, the room or quarter will be disinfected and lime-washed, the floors well scoured, and the paint well washed with soap and warm water. The windows, also, are to be left wide open for as long as practicable before reoccupation. The lime-washing to be undertaken by the Royal Engineers, and the disinfection and fumigation to be carried out by the subordinates of the Medical Department, wherever the necessary establishment exists.

Royal College of Surgeons in Ireland.

A deputation from this body waited upon his Grace the Lord Lieutenant at the Viceregal Lodge, on the afternoon of Thursday, May 14. The deputation consisted of the following:—The President (Dr. Denham), the Vice-President (Mr. Joliffe Tufnell), William Colles (Secretary), J. Stannus Hughes (Secretary of Council), John Brennan (Registrar), Robert Adams, Richard G. H. Butcher, Rawdon Macnamara, George Hornidge Porter (Surgeon-in-Ordinary to the Queen), Benjamin F. M'Dowell, Edward Ledwich, Alexander Carte, James H. Wharton, Albert J. Walsh, E. D. Mapother, Archibald H. Jacob, John Morgan, E. Hamilton, George H. Kidd, F. Kirkpatrick, Alfred H. McClintock, John Hamilton, Francis L'Estrange, Edmund Nugent, Henry J. Tweedy, John R. Kirkpatrick, Benjamin MacDowel, John Cronyn, Philip C. Smily, William Stokes, Henry Croly, Christopher Fleming, John Barker, Henry J. K. Gogarty, W. H. O'Leary, M.P., B. Wills Richardson, M. A. Ward, William Roe, Sir William Wilde, Edward Quinan, John Lentaigne, Henry Wilson, Robert Henry Moore, Peter Shannon, John Grant, Nugent Duncan, William Jameson, M. Kilgarriff, and W. Arnold Thomson.

The President read the address, as follows:—

"May it please your Grace, we, the President, Vice-President, Council, and Fellows of the Royal College of Surgeons in Ireland, desire to approach your Grace to offer our sincere congratulations upon your arrival in Dublin as the representative of our beloved Sovereign, and to assure you of the very great satisfaction we feel in having an opportunity of again welcoming to this country a nobleman who has already manifested so deep an interest in its prosperity. We would respectfully assure your Grace that we shall always be ready to promote, by every available means, the welfare of the public service in all matters of State Medicine, and that we shall be happy to receive from the Government such suggestions as it may think proper to make in furtherance of these important objects. We avail ourselves of this opportunity to express a hope that your Grace may be pleased, at no distant day, to honour our College with a visit, and thus be enabled to judge of its capabilities to discharge the important duties confided to it by her Majesty and her royal predecessors. In conclusion, we trust your Grace may be pleased to extend to our profession that consideration and support which we feel it is fairly entitled to expect."

His Grace replied in the following terms:—

"Mr. President and gentlemen, I have listened with peculiar pleasure to the address just delivered to me by the representatives of the Royal College of Surgeons. By your patient researches, by the intensity of your studies, by the boldness of your experiments, and, above all, by the high integrity and noble self-devotion of your members, you have earned for yourselves a leading place among the scientific institutions of the world. I accept with great pleasure the assurance which you give me that you will be able to devote some portion of your valuable time to the study of the best means of promoting the general welfare of the community. You will find me ever ready to make such suggestions as may have occurred to me for the attainment of this desirable object; and I trust that I may have the benefit of your wide experience and useful advice in these matters. I shall be most happy shortly to visit your College, and I shall inspect its various branches with deep interest. You may rest assured that every consideration and support shall, on my part, be extended to your noble profession."

Several members of the deputation having been introduced to his Grace, the deputation retired.

Floating Baths on the Thames.

We are glad to be able to chronicle that one of the many wants of London is in a fair way of being satisfied. On Saturday last the iron hull intended for a large bath, to be

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moored in the river off Charing-cross Pier, was launched from the slips on which it was built in the Thames Ship-building Company's yard. This bath is the first of several about to be constructed for the Floating Swimming-Baths Company. It is 177 feet long by 30 feet wide, and has a bathing area of 135 by 25 feet, the water varying in depth from three to seven feet. At one end of the bath Perrett's patent filtering apparatus will be fitted, provided with pumping machinery capable of passing 1000 gallons of water per minute into the bath, and thereby insuring a constant change of clean water. The question of filtering the water supplied for bathing has occupied the attention of the Company for some time, and the present arrangements have only been adopted after severe trials carried out by mooring a vessel, with the apparatus now selected on board, over the very spot where one of the baths will subsequently be stationed, in order that samples of the water might be obtained under every condition of tide and weather. The bath will be covered by a handsome superstructure of iron and glass, enlarged into a dome towards either end, under which fountains will be placed delivering the fresh filtered water into the bath. The bath now launched, after being completed in its internal fitments, will be moored in the recess of the Victoria-embankment on the west side of the Charing-cross-bridge, access being obtained to it by means of the landing-stage at present in use there. These floating baths have been for many years in use on the Seine at Paris, where, we believe, they pay remarkably well, and there would appear to be no reason why the speculation should be a failure in this country. From a sanitary point of view, their establishment and continuance is of vast importance. The baths at present in existence for a great city like London are too few, and not always of the best description; but if the present Company meets with the success it deserves, it will be possible to have a refreshing swim, without danger, in the purified tide-way of a rapid river like the Thames, which of itself will be highly conducive to the health of that hard-working portion of the community who have neither time nor money to spend at the legitimate bathing place—the seaside.

THE EDINBURGH UNIVERSITY CLUB.

The quarterly dinner of this Club was held at St. James's Hall on Monday, the 18th inst. The Lord Advocate for Scotland presided, and was supported by Professor Huxley on the right, and Professor Gairdner, of Glasgow, on the left. Between fifty and sixty gentlemen sat down to dinner, among whom were Mr. Thomas Faid, Drs. Sieveking, Murchison, and Cobbold, Mr. Gay, Mr. Callender, and Professor Bertier, of Aix-les-Bains. After the usual loyal toasts, the Lord Advocate, as Vice-President of the Society, proposed, "Prosperity to the Edinburgh University and the London Club." Never, said the President, was the University in a more prosperous state than now. Men from all quarters of the globe were enrolling themselves as matriculated students. A subject of considerable importance was now before the House of Commons—viz., a proposal to sanction the education of women. "I believe," said the Lord Advocate, "there is a very strong feeling against it." For himself, he was not entirely opposed to the admission of women to the medical profession; but to allow them to meet with men in the same classes, and for the study of disease, would be destructive of all decency and proper feeling. As a member of the University Court, he never could consent to such a subversion of established rules of propriety. He was in favour of the scheme proposed by the University of London, to license women if they should succeed in passing the necessary examinations and curriculum, but it would never do to admit them with male students to a teaching university. Probably the best course for medical men to adopt would be not to oppose the wishes of a few very determined enterprising ladies, because it would lay them open to a charge that they were acting in self-defence rather than in the interests of the fairer sex. If the women were conceded the right to obtain degrees, there would probably be very few who would exercise it, for women, almost without exception, place more confidence in a man's judgment and discretion than in a woman's. He trusted the proposal of the University of London would be carried out, as it would then give a chance of a peaceful solution of this much-vexed question, and it would save the University of Edinburgh a great deal of bother. He looked upon Mrs. Garrett-Anderson as an exceptional person, and he believed the profession to be favourably disposed towards her. He was quite opposed to compulsory measures, and even a permissive legislation would probably give rise to very strong opposition.

Later in the evening the Lord Advocate made some remarks upon the sanitary measures now before Parliament. He knew of no question of greater importance than that introduced by the London College of Physicians to remedy the injurious effects of overcrowding. It cannot be too strongly impressed upon the ratepaying public that a temporary increase in the rates for the purpose of improving the dwellings of the poor would be of ultimate advantage, as it would before long relieve them of a considerable portion of the burden for which they are now taxed. By improving the dwellings you lessen the sickness, and in so doing lower the rates.

Professor Huxley, replying for "The Visitors," said that he was indebted to Scotchmen for many honours far beyond his deserts. He did not in the least expect that, when appointed Lord Rector of the Aberdeen University, he would be arrayed in a gorgeous gown, and have an honorary degree conferred upon him.

Toasts were also proposed by Mr. Butler, Professor Gairdner, and Dr. Sieveking.

ALBUMINURIA AS A SYMPTOM OF THE EPILEPTIC PAROXYSM.

It has lately been shown by Dr. Max Huppert that every well-marked fit of epilepsy is succeeded by the appearance of albumen in the patient's urine. The albumen is not found in the urine which is passed just before or during the paroxysm, but in that voided directly after it, and continues to be present for three or four and sometimes for six or eight hours. The more severe the fit, the more abundant the albuminuria; but cases of mere epileptic vertigo may be quite unattended by this phenomenon, unless the attacks follow one another rapidly. The amount of albumen excreted is never large. There may be sufficient, however, to form the ordinary flocculi with heat and nitric acid, but often there is only a white cloudiness or mere opalescence, especially after mild epileptic fits. The largest quantity of albumen is found in the first urine passed after the fit, and the greatest average amount in those patients who have long suffered from severe attacks. Such urine is also remarkable for its clearness and its increased quantity, and its specific gravity generally ranges from 1018 to 1020.

Of course great care is required in testing for such small amounts of albumen as epileptic urines contain; but Dr Huppert shows by comparative experiments with aqueous solutions of albumen of known strength, that the heat and nitric acid test is really a delicate one if properly applied. The best plan is to boil half an ounce of the urine, and then to let it cool a little before adding the acid, so as to avoid the reaction of indican, which might otherwise mislead the experimenter. Six or eight drops of concentrated (not fuming) nitric acid are then added, and the whole is allowed to stand for twenty-four hours, as the albumen reaction does not always take place at once. If a deposit of urates occurs after cooling, it is only necessary to heat the liquid a second time, when the urates dissolve and the albumen remains unaltered. There are two other phenomena by which the severer forms of epilepsy are accompanied; the appearance of hyaline cylinders

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and of spermatozoa in the urine. The cylinders are found in the first or second urine after the fit, but they do not remain present so long as the albumen does. The spermatozoa also occur in the first urine, after severe attacks, and in about a tenth of the cases exist in such numbers that the conclusion is inevitable that a definite although slight ejaculation of semen is coincident with the fit. It probably is due to a direct nerve-irritation—that is, one which bears the same relation to the central nervous centres as the convulsions do. A true seminal emission is not a phenomenon of epilepsy in Dr. Huppert's experience. It is remarkable that red blood-corpuscles are absent from the urine after epileptic attacks of all kinds, or their number if present is so small that it can be considered of no significance. Even where there were subconjunctival petechiæ, Dr. Huppert could not find an increase of red blood-cells in the urine, even with the most careful microscopical examination. White blood-cells, on the other hand, are almost always present. This absence of red corpuscles points to the arteries as the source of albumen in epilepsy, since Liebermeister, Cohnheim, and Hering have shown that venous congestion, even without rupture of bloodvessels, is always accompanied with an abundance of red corpuscles in the urine as soon as albuminuria commences.

Dr. Huppert (whose paper will be found in the last number of Virchow's *Archiv*) mentions in conclusion the curious fact that while the urine of patients with progressive paralysis of the insane, after epileptiform or apoplectiform attacks, agrees with that of epileptics in containing albumen and hyaline casts, it differs from the latter in containing red blood-corpuscles in some quantity, either isolated from one another, or in groups of six to twelve in each. He does not attempt an explanation of this fact, but contents himself with simply recording it.

A SUBSTITUTE FOR THE ELASTIC LIGATURE.

At the last meeting of the Clinical Society, Mr. Callender exhibited for Dr. Hollis "A Sarcotome." This instrument consists essentially in substituting, as a cutting apparatus, a spiral steel spring and a waxed thread for the ordinary caoutchouc tubing, which has hitherto acted as an elastic ligature. The spring is confined in a small metal tube, A, closed at one end and wormed externally as a screw for about an inch at the other, in order to receive a ring of metal called the "screw ring." A short cylinder, B, slides readily over A, and is fixed to one extremity of the spring by means of a screw which passes through two longitudinal slits in the sides of A. A metal cap having a small ring at its free end fits on the closed end of A. When arranged for use, the free end of the spring is forced against the closed end of A by the "screw-ring" and sliding tube, B. A waxed thread or other ligature is placed around the parts to be screwed; the surgeon passes its ends through the ring in the cap, and then fastens them by means of a screw nut fixed to B. The string is released by removing the screw ring, and its whole pressure is directly exerted upon the ligature. Dr. Hollis claims for this invention many advantages over the elastic ligature. It can be used with any form of thread or wire ligature, thus diminishing the risk of breakage; it is easily adjusted to a constant known pressure; and, in as far as it has already been applied by Mr. Callender, it appears absolutely painless in its operation.

THE ACTION OF VALERIAN IN DIABETES INSIPIDUS.

M. Bouchard (*Comptes-Rendus de la Société de Biologie*, Paris, p. 255) has lately investigated the influence of valerian on diabetes insipidus, and finds that it acts by diminishing the excretion of urea, and so secondarily the polyuria. After eight grammes of the extract of valerian the urea excreted may fall to forty grammes, or about 600 grains, per diem; and there is no diminution in the amount of urine observed until the urea has fallen below its normal quantity, and then only 2000 or 1500 grammes—*i.e.*, four or three pints—may be excreted in twenty-four hours. In other diseases the action of valerian is variable, but where any exists it can always be referred to the diminution in the excretion of urea which it produces; and if there is no azoturia the action is *nil*. Thus, in diabetes mellitus, if urea is in excess, it may fall while the patient takes valerian from forty-five grammes to twenty-five or even nineteen per diem, and then the polyuria and glycosuria diminish in their turn. Dr. Bouchard considers that the action of valerian is to spare waste of tissue, and in support of this view he mentions that certain Indians of Lower California and Mexico are accustomed to go through a course of it for a month before they enter upon a severe expedition, so that they may be better able to bear fatigue. He gives it in frequent small doses, and gradually increases the amount taken until he has in some cases reached a dose of thirty grammes in twenty-four hours.

USE OF OPIUM IN AMERICA.

The *Cincinnati Gazette* reports that the use of opium as a stimulant is becoming pretty general throughout the United States. The Custom-house returns show that the quantity of opium imported into the country, now nearly 250,000 lbs. annually, is ten times more than it was thirty years ago; and it is the opinion of physicians and druggists that not more than one-third of the quantity is used for medical purposes.

THE PHARMACEUTICAL SOCIETY'S DINNER.

On Tuesday, the 19th inst., the members of the Pharmaceutical Society and their friends met to dine at the Crystal Palace, with Mr. T. Hyde Hills, the President, in the chair. The Society was well represented, members from all parts of the country being present in large numbers, so that a goodly company sat down to dinner. It is a laudable practice at this annual gathering to limit the number of toasts, so that, with a tolerably early hour of meeting, those present may have at the end of the evening some opportunity for social intercourse. In this respect the dinner was highly successful, though in certain respects the arrangements on the part of the Crystal Palace authorities might have been improved. On Wednesday evening the annual *conversazione* of the same Society was given at the South Kensington Museum. As usual, the affair went off well.

ST. MARYLEBONE GENERAL DISPENSARY.

At a meeting of the directors, held on May 20, at 77, Welbeck-street, W., it was resolved that the voluntary contributions to this institution be supplemented by provident payments. An energetic sub-committee has been appointed to submit a plan for carrying out this reform to an early meeting of the governors. This dispensary (the oldest but one in London) has of late been declining for want of support; but we trust that ere long, under improved financial handling, its excellent working medical staff may receive some pecuniary recognition for their good service.

LEEDS AND WEST RIDING MEDICO-CHIRURGICAL SOCIETY.

The annual meeting was held on Friday last. The report showed that the Society was in a flourishing condition, there being 159 members. The following gentlemen were elected office-bearers for the ensuing year:—*President:* Dr. Heaton. *Vice-Presidents:* Mr. Wheelhouse and Dr. Myrtle (Harrogate). *Treasurer:* Dr. Heaton. *Hon. Secretaries:* Mr. A. F. McGill and Dr. Symes (Skipton). *Committee:* Dr. Clifford Allbutt, Mr. E. Atkinson, Dr. Bell (Bradford), Dr. Crichton Browne (Wakefield), Mr. Chaffers (Keighley), Dr. Eddison, Mr. S. Hey, Mr. Jessop, Mr. Leak (Hemsworth), Mr. Nunneley, Mr. Scattergood, and Mr. S. C. Smith (Halifax).

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FESTIVAL OF THE EAST LONDON HOSPITAL FOR CHILDREN.

The first festival of the East London Hospital for Children, Ratcliff-cross, was celebrated at the London Tavern on the evening of Wednesday last. Mr. Samuel Whitbread, M.P., occupied the chair, and in a very eloquent speech urged the strong claims of the charity on the public for support, especially at this time when the erection of a new hospital is delayed solely from want of funds. The appeal was cordially responded to, and subscriptions nearly to the amount of £2000 announced in the course of the evening.

PARLIAMENTARY.—REGISTRATION OF BIRTHS AND DEATHS——DESTRUCTION OF INFECTED CLOTHES—PUBLIC HEALTH BILLS (IRELAND AND SCOTLAND)—CATTLE DISEASE IN IRELAND.

In the House of Commons, on Thursday, May 14,

Mr. Sclater-Booth, having introduced the Government measure for the Registration of Births and Deaths, proceeded to the second reading of the Bill, the details of which he explained to the House. In England, registration is not compulsory, and provisions were therefore inserted in the present Bill to make it obligatory. Various measures had been brought before the House during recent years, but had not obtained the assent of Parliament. Mr. Sclater-Booth expressed surprise that so many years had elapsed without those compulsory powers of registration which it was the object of this Bill to provide. Registration as regarded marriages was complete enough, but that of deaths was not satisfactory; and when it has been computed that 20,000 births escape registration annually, it is clear that some remedy for this defect is of paramount importance. Not only did births escape registration, but many infants born alive were represented as stillborn. It has also been provided that persons living at a distance from the registrar may, on payment of a shilling, require him to attend at their house. The Act also gives power to register a birth in another sub-district to that in which the child was born. Additional securities were taken that infants born alive should not be buried as stillborn, but Mr. Sclater-Booth admitted that it might be thought he had not gone far enough in that direction. The Bill gave powers for creating sub-districts where the present districts were too large, and in this way it was hoped to procure more speedy reports of the prevalence of epidemics, so that the sanitary authorities might take steps to remedy it as soon as possible. The Bill provided for a more complete system of registration of births and deaths at sea. The registrars would be required to register births gratuitously for three months instead of three weeks as at present.

Dr. Playfair intended to have opposed the second reading of this Bill; but as it appeared that an efficient system of compulsion would be introduced, he would withdraw any opposition to the Bill. The subject was very important, inasmuch as the Anti-Vaccination League were persuading parents not to register their children's births lest the latter should be compulsorily vaccinated. Dr. Playfair informed the House that there was an average of 40,000 illegitimate children born annually in England and Wales, and that the temptation to avoid registering these was very great, especially where criminal neglect was contemplated. Upwards of 8000 deaths occurred annually in which no medical certificate was forthcoming, and no inquests were held upon the bodies. The Committee stage was fixed for June 4.

Replying to Lord Claude Hamilton, Mr. Sclater-Booth explained that, under the Public Health Act, sanitary authorities may order the destruction of infected clothing, and give compensation for the same. It is proposed to extend this power to sanitary authorities in the metropolis who are exempted from the operation of the Public Health Act.

On Thursday, May 21,

The report upon the expenses connected with the Births and Deaths Registration Bill was to be considered.

The Public Health Bill for Ireland was entered for a second reading, as also the supplemental Bill for the Public Health of Scotland.

Sir R. Buxton was to ask whether, as there appears no prospect of the cattle affected with pleuro-pneumonia in Ireland being slaughtered and compensated for, the Lord President will rescind the order in Council which enforces such slaughter in Great Britain.

THE CASES OF THREE WOUNDED OFFICERS TREATED ON BOARD THE "VICTOR EMMANUEL."

Case 1.—Captain D. N., a volunteer serving with the Ashantee Expedition, aged thirty-three years, and with sixteen years' service, was admitted to H.M.S. *Victor Emmanuel*, on February 13, with three gunshot wounds, received at very close quarters in a skirmish at Fommanah on the 2nd of the same month. The wounds were as follows, viz.:—

1st. A large opening, situated three inches and a half under the right clavicle, at the junction of the outer and middle thirds, about two inches in diameter, and with inverted edges. The slugs took a direction from above, downwards, outwards, and backwards along the floor of the axilla. A small opening—clearly that of exit of one or more of the projectiles—existed at the edge of the posterior wall of the axilla, almost closed, and quite free from discharge. When pressure was made along the tract of the wound, a quantity of pus exuded from the anterior orifice. Neither the cavity of the thorax nor the shaft of the humerus had been involved, and there were no lesions to indicate an injury to either large vessels or nerves.

2nd. There were two wounds of right forearm; one on the posterior and outer aspect of the limb, about four inches below the olecranon process, the second situated on the same aspect of the limb, but nearer to the joint. Both were circular in outline, looked sloughy, and seemed to be orifices of exit.

3rd. A smaller wound was found close to the internal condyle, which also appeared to be an orifice of exit.

A great amount of pain, heat, and swelling existed about the joint, and a considerable quantity of pus had formed and been evacuated by a small opening on the anterior surface before admission to the hospital-ship, which opening had by that time closed. Extreme pain was complained of when the limb was moved, so much so as to lead to the inference that the joint had been implicated. The general health had been indifferent, and he suffered very severely in the long and tiresome journey down to Cape Coast Castle from the front; indeed, but for the devotion of a soldier of the 42nd Highlanders, who, himself a hospital patient, attended him most carefully on the road, I think it more than doubtful if he ever would have reached the ship.

The wounds were dressed with carbolic oil, one part to fifty, and lightly covered with lint, the elbow was placed on a pillow, and an anodyne of hydrate of chloral administered. Pulse 88; skin cool; tongue moist, and covered with a creamy fur. Iced soda-water and brandy, with strong soup and beef-tea at intervals, were administered. The patient, I ought to have said, was on arrival placed in a large airy stern cabin, with an open port close to his bed. Next day he continued much in the same state. In dressing the limb two small fragments of bone, each about the size of a split pea, were removed. Pulse 88; temperature 98° Fahr. On the 15th, as there were great pain and tenderness about the joint, two free incisions were made posteriorly (under the influence of chloroform), and a careful examination by probe was made of all the wounds. Small portions of loose bone were found about the situation of the head of the radius, but no slugs were anywhere to be traced, and the conclusion seemed warranted that the injury to the joint was not so extensive as had at first sight appeared. Towards evening febrile symptoms set in, the pulse rising to 96 and the temperature to 102·2° Fahr., with a dry brown tongue and great thirst; the pain round the joint became intense, the tenderness being most marked between the external condyle and olecranon process. Some relief was derived from the carbolic spray and lightly swathing the tender parts afterwards in carbolic gauze. The chloral hydrate draught was continued at bedtime. On the 17th and 18th, reports were much the same: tolerably easy and quite free from fever during the day, but with fresh febrile accessions every evening, which lasted through the night, and disappeared in the morning with an imperfect effort at diaphoresis. In order to support his strength a very liberal allowance of soup, milk, eggs, and jelly was made, and stimulants well iced were freely administered.

As the quotidian accessions of fever closely resembled those met with in numerous other patients on board, it was thought that the complication was less symptomatic than malarial,

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and hence quinine was prescribed in small quantities on the 20th. This was found to answer well, and he improved slowly for the three next days. The discharge from the wound on shoulder, however, continued very profuse. On the 23rd he complained of great pain in the elbow, which was much swollen and presented a reddish blush; the discharge also became scanty, thin, and sanious; pulse and temperature went up; he had a distinct rigor; and a slight cough was noticeable, although it did not attract his own attention, and was not attended with any expectoration. As a soldier had died on board during the week from pyæmia, and as another wounded officer presented the same symptoms with the patient under consideration, our apprehensions were naturally excited, and grave doubts began to be entertained as to the probable issue of the case. Nor did matters improve for the four following days. On the contrary, the swelling extended up to the shoulder, and the fever continued; the temperature at one time rising as high as 104° Fahr. Quinine was increased to five grains three times a day, stimulants were very liberally administered, and the pain and insomnia were combated with hydrate of chloral and morphia in full doses. Fortunately, as our hopes were getting very low, we left Cape Coast Castle for home on the evening of February 26, and with our departure from its pestiferous shores an improvement became faintly perceptible in this patient, which daily increased as we steamed into a more genial climate. By March 2 a very abundant discharge of an offensive character began to come from the wounds, followed by shreds of sloughing tissue. This relieved greatly the pain, tension, and swelling. A splint was now placed on the arm, which he had not been able to bear before, and which gave the elbow-joint steady support. A large bedsore now appeared over the sacrum, which complicated matters and retarded any very decided progress. It was dressed with carbolic oil and gauze, and support given by air-pillows; but occasional change of posture from bed to an easy chair became now an absolute necessity, and this, notwithstanding his weak and emaciated condition, soon told in his favour. On March 7 another small fragment of bone came away from the lower wound at the back of the elbow. On the 10th the denuded bone could be felt near the external condyle, and in a situation corresponding to the head of the radius. Discharge still very copious from wound in shoulder. To relieve pressure and a threatening sore over the internal condyle, the arm was put up at this date in an iron splint, which was afterwards changed for one of pasteboard.

The reports for the rest of the voyage are favourable. He slowly regained strength, the bedsores and wounds commenced to heal, and, although the elbow-joint continued somewhat swollen and very stiff, all pain and tenderness disappeared. The wounds had quite healed when he reached England on April 10, and his general health had improved to a degree beyond our most sanguine expectations. As, however, the elbow-joint threatened to be anchylosed at an obtuse angle, it was felt that the time had now come for such operative interference as might be deemed best to give him a serviceable arm, and he was accordingly transferred to the Royal Victoria Hospital, Netley, for further treatment.

Case 2.—Sub-Lieutenant C. D. S., aged 20, with nearly three years' service, was brought on board H.M.S. *Victor Emmanuel*, on the morning of February 15, with a gunshot wound of the right arm received in the action at Amoaful on January 31. The projectile, a rifle-bullet, entered at about the lower third of the upper arm, at its posterior and outer aspect. The orifice of entrance was large (two inches in diameter), and that of exit was higher up on the outer side of the fold of the axilla, where the bullet was cut out. In its transit the shaft of the humerus was extensively fractured and comminuted. A small fragment was removed on the day of his admission through the upper opening; discharge of matter profuse and fetid. Pulse 80; skin cool; tongue clean; appetite good. The journey, a long and perilous one, was borne very well. The devotion of his soldier-servant, who brought him down by double stages, and never left him for a moment, elicited the admiration of everybody. The arm was put up with an anterior and posterior splint, and carbolic oil and gauze used in the dressing.

He had an attack of fever on the afternoon of the 17th, which continued during the night, and left him very weak in the morning, as, notwithstanding an anodyne draught, he had little sleep. Discharge very profuse and offensive; bones still out of position, and cannot be better adjusted owing to their shattered state and the great pain that manipulation causes him. On the 20th the arm was changed to a guttapercha splint, the elbow being flexed at an acute angle. Milk, jelly, beef-tea, soup, and wine were liberally given, with iced soda-water as a beverage. Nothing worthy of note took place until the 22nd, when very high fever set in, with pulse 104; temperature 105° Fahr.; foul tongue, nausea, thirst, and slight dry cough, but no rigors. A deep-red blush appeared over the entire arm, which was swollen and very painful, the discharge continuing profuse and very offensive. The reports of the next three days are much the same: fever continued; pulse from 116 to 120; temperature 102° to 105° Fahr.; great thirst; entire loss of appetite, with consequent prostration; discharge of same character; swelling and pain in arm very great; restlessness and depression, with occasional delirium. Salines were administered, with five grains of quinine three times a day and anodynes at night; and wine and soup were given at frequent intervals, and in such quantities as he could be induced to take.

On the 26th his condition was all but hopeless—delirium, with symptoms of extreme depression, having set in during the night. Captain D. N. was at the same time in a very critical state with pyæmia, and a wounded soldier had died from this complication within the week. At the suggestion of Drs. McNalty and Moore, who had served throughout the Franco-Prussian campaign, it was decided, as a *dernier ressort* to move Mr. S. to the open air, so far as such could be managed, and a bed was accordingly fitted up for him in the most forward part of the ship, where he had fresh air blowing in direct from both a large port and a scuttle. Quinine with diaphoretics was continued, with champagne, iced brandy and soda, etc., and ice to the wounded arm. We left Cape Coast Castle on the evening of February 26, and on the day following a slight change for the better became apparent in the disappearance of the delirium, lowering of pulse and temperature, return of natural sleep, and diminution of the redness and brawny condition of the arm; but the progress was very slow, and for many days he continued in a very critical condition.

On February 28 and March 2 small pieces of bone were removed from the upper wound. It was attempted at the latter date to put a second splint round the limb, but he could not bear it. Temperature and pulse still over 100, and delirium recurred from time to time. Anodyne draught continued at bedtime; but, with the exception of an occasional purgative, no other medicine administered. Carbolic lotion used freely by means of irrigator twice a day, and carbolic oil and gauze as a dressing to wounds.

The further progress of this case was considerably retarded by febrile accessions from time to time, and by the presence of bedsores over the right internal condyle and sacrum, and on one occasion he was so utterly prostrated by a slight attack of diarrhœa as to be for some hours in a condition verging closely upon collapse. He was also greatly upset by the rough weather which we encountered on the latter part of the home voyage, as even sea-sickness became in his low state a serious complication. His general health improved considerably before reaching England, but he was never in a condition to warrant anything beyond palliative surgical treatment. The state of the arm had not materially improved on reaching Portsmouth on April 10, as much dead bone remained, and no attempt at separation had taken place. As further treatment was indicated, and as it seemed a fair case for conservative surgery, Mr. S. was transferred on April 13 to the Royal Victoria Hospital, Netley.

Case 3.—Captain and Brevet-Major W. B., aged thirty-eight, with twenty-two years' service, admitted to H.M.S. *Victor Emmanuel*, on February 16, suffering from three gunshot wounds received in action at Amoaful on January 31. These were as follows, viz.:—

1st. A slight flesh wound in the right lumbar region, producing a superficial ulcer about three inches in length; the projectile, a slug, merely grazing the surface.

2nd. A penetrating wound of right calf, the slug passing from without downwards and inwards, and lodging in the calf about half an inch under the skin.

3rd. A penetrating wound of the internal and anterior aspect of the left thigh. The orifice of entrance (which was small and almost healed on admission) was situated about two and a half inches posterior to the femoral vessels, and about five inches from the flexure of the groin. The projectile had been cut out at the outer aspect of the thigh, about two inches below the great trochanter. There was a large indurated discoloured swelling, about six inches in diameter, around the orifice of entrance; its greatest diameter corresponded with

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the femoral canal. It was not painful on pressure, but certain positions and movements of the limb caused great pain, both in the groin and on the inner side of the left knee. There was no œdema of the foot or leg; the posterior tibials beat synchronously and with equal volume; and there was no difference in the temperature of the feet.

This patient suffered also from an extensively hypertrophied heart, and from aortic valve disease, the result of an attack of rheumatic fever some time before starting for the West Coast of Africa—it is believed about two years. On admission, he was in a very anæmic state, and complained much of weakness, which he ascribed to the heavy loss of blood on receiving the last described wound, to occasional attacks of fever, and to the very fatiguing journey down-country. A loud systolic bruit was audible with the first sound of the heart, and the second was replaced by a prolonged murmur. The entire chest vibrated strongly at each beat of the heart, and all the superficial arteries of the body beat with a visible pulsation. He slept badly, was in a very nervous state, and was much troubled with dreams.

Carbolic oil dressing was applied to the wounds, and an anodyne draught ordered at bedtime. For several days after admission he suffered greatly at times from pain round the orifice of entrance of the slug in the left thigh, and extending down its inner surface. Spongio-piline stupes and the hypodermic injection of morphia were tried, and gave temporary relief. He was kept quite quiet, and in a recumbent position, on account of the very excitable state of the heart, and because of the great pain occasioned to the wounded thigh by motion of any kind. A generous diet was allowed, but stimulants were only given sparingly and tentatively.

On February 28 he suffered from very violent pain in the left groin, which was induced by his getting up to relieve his bowels, and again on March 1 he had another very severe attack of pain in the same situation. Large quantities of morphia had to be used hypodermically before relief was obtained. Four injections were required, the last two of which contained three-quarters of a grain of the alkaloid.

About this time the tumour was noticed to have increased considerably in size, and the patient's condition began to excite considerable apprehension. His appetite failed; his lips became pale and blanched; the heart's action was more tumultuous than ever; and his spirits, hitherto cheerful, became gloomy and depressed. Feverish symptoms showed themselves on the evening of March 3, but passed away on the morning of the 4th, and he remained during that day pretty much as usual. In the course of conversation in the afternoon it was observed that he wandered a little, but he soon afterwards corrected himself. He lay on a sofa in the sick officers' saloon near a stern port throughout the day, did not take his dinner as usual, and retired to bed at 8 p.m. An hour afterwards he was seized with a convulsive attack, becoming at once quite unconscious, with pupils fixed and dilated. Pulse 120; respiration rapid and very laboured; tumultuous action of the heart. Every effort to rouse him from this state failed, although feeble attempts to rally were at times evident, and he gradually sank throughout the 5th until 10.45 p.m., when he expired. For several hours before death the breathing was very difficult, and almost entirely abdominal, ceasing for a time, and then followed by three or four violent efforts to fill the chest.

In this case it was evident, from the nature of the wound, that a bloodvessel of considerable size had been injured. Operative interference had been considered, but the idea had to be abandoned, owing to the nature and extent of the heart disease.

Post-mortem Examination, twelve hours after Death.—External Appearances: Body emaciated. A large, circumscribed, tense, oval tumour, four inches and a half in long diameter by two inches in the transverse, exists on the inner aspect of the middle of the left thigh slightly posterior and parallel to the femoral artery. In the centre of the swelling is a small, open, circular granulating wound on the skin, half an inch in diameter; and there is a similar wound, a little larger, on the opposite side of the thigh. A small circular wound, nearly healed, exists on the outer aspect of the calf of the right leg below its middle, and there is a large circular, open, granulating wound, one inch in diameter, in the middle of the back, an inch and a half to the right of the spinous processes of the vertebral column. Head: Inner table of skull irregular, and in places the calvarium is very thin, especially at the anterior and superior angles of the parietal bones, where there are two oval symmetrical depressions, one inch in their long diameter. Much opacity and thickening of arachnoid, with effusion under that membrane. Vessels of the surfaces of the brain congested, with flattening of the superior convolutions. One ounce of serous fluid in lateral ventricles. Brain-substance very soft. Chest, etc.: Old firm adhesions of the pleura on the right side opposite the middle of the inferior lobe, and marks of old cicatrices on the anterior surface of the right lobe. Puckering of the apex of the left lung, and marks of old stellate cicatrices in the same locality; base of the lung congested. Both lungs emphysematous in patches over the surface; glands at their roots much enlarged. Congestion of the lower part of the trachea, extending into the bronchi. Two ounces of amber-coloured fluid in the pericardium. Heart very large; dimensions as follows, viz.:—Extreme length, 7·5 inches; groove to apex, 5·5 inches; circumference, 12 inches. A large oval "white spot," one inch and a half in long diameter, on the anterior surface of the right ventricle, and a corresponding one on the pericardium; right ventricle covered with fat; a partially decolorised clot in the right auricle, extending into the right ventricle. Cavity of left ventricle large, and valves hypertrophied; decolorised clot in the left auricle. Lappets of the aortic semilunar valves thickened, with fibroid-like deposit along their edges and in their structure; tricuspid and mitral valves free from disease; lining membrane of the aorta rough, puckered, and studded with soft yellow gummy-like deposits, in size from a line to two lines in breadth. Deposits of the same kind are observable throughout the lining membrane of the arteries generally, except the pulmonary; patches of atheroma very distinct in the arch of the aorta. Abdomen: Some puckering of the capsule, and one large stellate cicatrix on the surface of the right lobe of liver. Dimensions as follows, viz.:—Right lobe, antero-posterior, 8 inches; transverse, 7 inches; depth, 3·5 inches. Left lobe, antero-posterior, 5·5 inches; transverse, 3·5 inches; depth, 2 inches. Substance friable; no reaction with iodine; capsule adherent in places; gall-bladder small and elongated, half full. Spleen—Length, 6 inches; breadth, 4 inches; depth, 2·5 inches; capsule adherent; structure very dark-coloured, pulpy, and almost diffluent. Kidneys—Left healthy; yellowish deposits in the apices of pyramidal portion of the right. Stomach and intestines healthy; no parasites detected. The tumour in the inner side of the left thigh was found to consist of a large partly decolorised laminated clot, about two pounds and a half in weight, bounded by a sac formed by the muscles and intermuscular tissue, and communicating with a small wound of the lower and posterior part of the profunda femoris artery.

NOTES ON FOREIGN HOSPITALS AND SCHOOLS OF MEDICINE.

III.—GREIFSWALD—(*Continued*).

Part 2.—The University Hospital.

A few weeks ago we attempted to give some description of the University of Greifswald. We then sketched somewhat roughly the position, situation, and appearance of the town itself, the character of the University, and the arrangement of the University buildings; and tried to represent in fuller detail the condition of the scientific departments of the medical faculty, and the buildings in which they are severally to be found. The anatomical, physiological, pathological, chemical, mineralogical, botanical, and zoological departments were thus described at greater or less length. What still remains to be noticed is the clinical department, and this we propose to do in the present notes.

The University Hospital is the centre of clinical work at Greifswald, and has been already referred to as forming part of the great group of buildings which belong to the Medical Faculty in the north-eastern corner of the town. Its situation is apparently a carefully selected one; it is exposed to plenty of fresh air and bright sunshine in front, while behind it a broad open tract of flat coast-land stretches down to the Baltic, which just escapes being seen in the distance. The Hospital building presents a very handsome appearance. It is quite a modern structure, having been erected in 1858,

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while the medical clinic was under the direction of Niemeyer, who was undoubtedly a leading spirit in this as in many other recent improvements at Greifswald. The ground-plan of the Hospital is shaped somewhat like the letter ⌊, thus: ⌐,—the long limb of the letter representing the front of the building towards the street, and the short limb a wing which runs back into the garden. In its present condition the Hospital is not complete, and we believe that a considerable addition will very soon be made to it by building from the extremity of the back wing—in the first place a continuation of this wing in the same line, and in the second place a block parallel with the front. These additions have been necessitated by the crowded state of the Hospital as it is at present, although it contains upwards of 180 beds.

The Hospital is built in five storeys, and the plan of its internal arrangement is the one so common in large public buildings on the Continent, whether hospitals or not,—of having a long corridor on one side, and on the other the apartments which open out of it. The greater part of the Hospital building at Greifswald is thus disposed, while the staircases are in the corners, as well as the various accessory departments, including the rooms of the resident medical officers, and the bath-rooms, water-closets, etc. The two principal floors are occupied by wards; the lower floors by kitchens, store-rooms, etc.; and the top floor by a ward for mild surgical cases, as will be afterwards described at greater length. The operating- and lecture-theatres and the waiting-halls for out-patients are located at the extremity of the back wing.

Such is the general plan of the Hospital, and the arrangements of the wards will now be more particularly described. The wards are entered at the back from the corridor, and are lighted mainly by a large window in the front. They are small when compared with the more modern English wards, being intended for not more than six beds each, but eight have frequently been put in them on account of the large number of applicants for relief. There is, indeed, an aspect of confinement about these wards, which is, however, somewhat relieved by free communication between the adjacent apartments through doors in the side walls or partitions. At certain intervals a small room intervenes between two neighbouring wards; this is occupied by the ward attendant, or may occasionally be used by a single patient; and a kind of ward-kitchen intervenes between it and the corridor. Ventilation is effected in the wards by natural means only. We believe that when the Hospital was built a system of artificial ventilation by suction was arranged, but it soon got out of order, and has never been repaired; so that open doors and windows are now alone trusted to for fresh air; and, as far as we can speak, no fault can be found with the wards in this respect. The walls are oil-painted on paper. The ward furniture scarcely requires special notice, but it may make this description more complete if we say that the beds are of iron, with wooden tops and bottoms; that the mattresses are of hair, in three pieces, above a straw bed; and that the bedclothes in use are blankets. The wards on the lower floor are occupied by men, and those above by women. The former are under the care of male attendants, and the latter of females or nurses, one attendant being allowed for every sixteen patients. There are no special night-nurses.

The bath-rooms are supplied with hot and cold water, and are not peculiar in any important respect. The baths can be wheeled at pleasure from the bath-rooms to the bedside of the patient; and the cold-water treatment of pyrexia is carried out in the wards in this way. The water-closets are not peculiar.

Having gone thus far in the description of the Hospital at Greifswald, let us now consider the character of the diseases most commonly to be found in it. The climate is, of course, during a part of the year at least, a cold one, which may account for the fact that acute rheumatism is of very frequent occurrence, with attendant or consecutive heart disease. Phthisis is also very prevalent on this part of the Baltic coast, and acute tuberculosis by no means rare. Pleurisy is also said to be exceedingly common in Greifswald, so that it is the exception to open a body post-mortem without finding the lungs adherent. The reader will not forget that Niemeyer spent a considerable portion of the most active part of his professional life at Greifswald, and must have been very much influenced in arriving at settled opinions on phthisis by the class of cases of the disease which he saw here. As for epidemic diseases, typhoid fever is rare—a better state of matters, perhaps, than one might expect in a flat country like Pomerania and in a town with open sewers. Typhus is very rare. On the other hand, there was a very severe epidemic of relapsing fever in 1871; and in 1872 small-pox carried off a number of the inhabitants. Syphilis is rather common. There are special syphilis-wards for females in the Hospital, but male syphilitic patients are treated in the ordinary wards.

The medical wards are at present under the direction of Dr. Mosler, physician to the Hospital, and Professor of Clinical Medicine in the University. Mosler is well known in Germany as the author of the most complete work that has yet appeared on the subject of leukæmia, in connexion with which he performed and described certain experiments on the extirpation of the spleen. He has also written on typhoid fever, and it is only quite recently (*Medical Times and Gazette*, 1874, page 187) that a proposal of his for the topical treatment of pulmonary cavities was described in this journal. The Professor of Clinical Medicine visits the Hospital daily at nine o'clock in the morning. We are not aware that the system of clinical instruction at Greifswald is different in any essential respect from that pursued at other German universities, and of which some account was given in the notes on the University of Kiel (*Medical Times and Gazette*, 1874, page 18). In regard to treatment, it may be mentioned that the cold-bath treatment of typhoid fever prevails here, as in so many other parts of Germany at the present time. The patient's temperature is taken every four hours *in recto*, and should it be found to rise above 40·5° C. (104·9° Fahr.) a bath of 26° C. (79° Fahr.) is immediately administered. Scruple or half-drachm doses of quinine are also given in some cases every forty-eight hours. Pleurisy, which is so common at Greifswald, is treated with iodine externally and iodide of potassium internally. Aspiration is not resorted to unless demanded by dyspnœa and pyrexia, and then Dieulafoy's instrument is employed.

Besides the ordinary professor of medicine at Greifswald, there is an extraordinary professor of Syphilis and Dermatology. Two *Privatdocente*, or private teachers recognised by the University, give instruction respectively in laryngoscopy and diseases of the larynx, and in percussion and auscultation. With four teachers of practical medicine in its various branches, and opportunities of acquiring a knowledge of pathology such as were described in the first part of this report, the students at Greifswald ought to be turned out sound and well-informed physicians.

The same may be said of the surgical part of their education. The Professor of Clinical Surgery and chief surgeon to the Hospital attends daily from half-past ten till twelve. These posts are at present occupied by Hüter, whose name has been prominently before the profession, both in Germany and in this country, for the last few years. Hüter is probably best known to us as the surgeon who has recommended and practised the removal of "scrofulous" glands from the neck and elsewhere by surgical means, in order to prevent the possibility of future infection, and the development thereby of tuberculosis (see *Medical Times and Gazette*, vol. i. 1873, page 227). Hüter's theory of fever has also been made known to English readers (*Medical Times and Gazette*, vol. i. 1873, page 278); and quite recently his method of treating erysipelatous and other inflammations by local injections of carbolic acid (*Medical Times and Gazette*, February 28, 1874). In his own country Hüter has earned for himself a considerable reputation as an operator, especially as a military surgeon in the Franco-Prussian war, and as the author of an important work on Diseases of the Joints, and another on the Principles of Surgery. He has also contributed several important papers to the medical journals, and is one of the editors of the *Deutsche Zeitschrift für Chirurgie*. We have given this detailed account of Professor Hüter's claims to notice because we believe that the time has come when the profession in England should be familiar with those of their Continental brethren who have deserved so well of them, and when they should be able to discriminate between the work of reliable authorities and that of merely ephemeral writers. At the time of our visit to the Greifswald Hospital we looked with some interest for a case of excision of scrofulous glands, but were rewarded with the sight of nothing more than a scar on the neck of a patient whose ankle had more recently been resected for scrofulous disease. Diseases of bone seem to be common at Greifswald, and many of the cases were being treated with drainage. Disease of the hip was treated with extension by pulleys. Professor Hüter practises a method of dressing wounds which may be described as follows:—All wounds are washed out with a weak solution of carbolic acid,

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contained in a vessel which may be raised or lowered at pleasure, according to the amount of force required. The wound is then dressed with carbolised gauze, carbolised cotton-wool, and oiled paper, in succession. This dressing is changed twice a day. Hüter does not employ the carbolic spray while the wound is exposed.

Pyæmia occasionally occurs in the Hospital, but is considered by no means common. The number of serious cases, including amputations, that have been treated by the above method of dressing since its adoption is, however, too small to justify the compilation of reliable statistics. It must also be remembered that, as has been already stated, Greifswald Hospital is overcrowded. Here, as in Germany generally, plaster of Paris is in high repute as a material for splints. Simple and compound fractures, resections, and in fact all injuries and diseases demanding treatment by rest, are believed to call for a plaster-of-Paris splint. For example, even the ordinary bandage for fractured clavicle is fixed in plaster of Paris. Professor Hüter has discarded altogether the use of the starch-bandage.

The professor of surgery has an assistant-surgeon in the Hospital, who shares his duties both in the wards and the out-patient department. Dr. Vogt occupies this post at present.

It has already been mentioned, in the description of the Hospital, that there is a ward on the top-floor for slight surgical cases. This ward is immediately under the roof, in garret-fashion; the beds are more closely packed than in the wards proper; the windows are very small, and ventilation must be effected with some difficulty; yet the atmosphere of the place was not offensive, although there seemed to be overcrowding. This ward is apparently reserved for simple casual cases of a surgical kind.

In describing the "Clinics" of the Hospital at Greifswald, we may remind the English reader that the "surgical clinic" of a German hospital, in the popular acceptation of the term, signifies the operating-theatre and a kind of out-patient practice which is carried on in it during a certain part of the day. At Greifswald, which is a fair example of this arrangement, there is in the first place an ante-room or hall, in which the patients wait before seeing the surgeon; within this is the operating-theatre, with a central table and raised seats; and beside these are one or two rooms for the assistants, instruments, etc., and a room for gynæcological examinations and operations. The operating-theatre at Greifswald is found awkwardly small, and will be one of the first parts of the Hospital enlarged. The professor of surgery and his assistant attend in the clinic every forenoon to meet the out-patients, as well as for the purpose of operating on in-patients and lecturing to the surgical class. We believe it is intended to form this ambulant clinic at Greifswald into a special department with a professor of its own.

The University Hospital at Greifswald has its "barrack" behind it, like many others in the same country. Those who have read the description of the Kiel Hospital in the *Medical Times and Gazette* (*loc. cit.*), may have learned something about this temporary-looking class of hospital. The description of the barrack at Kiel will apply without serious inaccuracy to that at Greifswald. The latter, which contains thirty-two beds, stands in the garden behind the Hospital proper. It is supported on pillars three feet above the ground, so that the wind sweeps fairly under the floor, and would prove cold and dangerous but for a layer of turf which is put beneath the boarding. There can be little doubt but that this is a cold house in winter, although the verandah is shut up, and the fires in the large stoves kept blazing; for the walls are but of wood, the windows single, and the rafters open. The cases sent to the barrack are of course the least serious.

The in-patients of the Greifswald Hospital have to pay a sum of money for their board; and they are divided into three classes according to the amount—namely, 10, 30, and 45 thalers (30s., £4 10s., and £6 15s.) a month respectively. The diet of the patients, of whatever class, is very good. Every patient has meat once a day, with a variety of vegetables. Extra diets are supplied as ordered by the medical officers. In the morning each patient has coffee, and in the evening soup; some of them have another cup of coffee. In regard to beverages, beer is not allowed in the ordinary diet, although we need hardly say that it is drunk in abundance outside the Hospital walls. On the other hand, wine seemed to be frequently prescribed; it is served out in peculiar little bottles of three ounces each.

It need scarcely be added, in concluding this rapid sketch of the Greifswald University Hospital, that the administrative part of the establishment is large and very well arranged. At our visit to the place we were taken over the kitchens, store-rooms, wine-cellars, engine-rooms, vapour-bath-rooms, etc., on the lower floors, and shown every detail of possible interest with the same courtesy and consideration which we experienced on all hands in Greifswald.

In every respect this Hospital seemed to be in a satisfactory condition, and the manner in which it was directed and appointed especially praiseworthy. English surgeons might object to the small size of the wards, and the principle of the corridor arrangement; but it must be remembered that both these plans are recommended by certain high authorities on hospital construction, however rarely they may be adopted in this country.

The department of Midwifery at Greifswald is not at present to be found in or near the Hospital which has just been described. The town is provided with a small Lying-in Institution—part of the remains of the professional establishment at Greifswald of former days. This stands near the University, and is said to be by no means more free from puerperal fever than a good many other similar institutions in Germany. It is probable that this year a new lying-in institution will be erected near the present Hospital. The midwifery clinic will then be re-established in a satisfactory form, under the direction of Dr. Pernice, the professor of this subject.

Reference has been already made to the teaching of diseases of the skin and throat at Greifswald. It remains to be mentioned that there is also an Ophthalmic Clinic in the town, under the charge of Professor Schirmer.

FROM ABROAD.

HYPODERMIC INJECTION OF QUININE IN INTERMITTENT FEVER.—DR. LENTE has read at the Duchess County Medical Society, and published in the *New York Medical Journal* for March, an elaborate paper detailing the results of his experience on this subject. After passing in review the various cases in which the hypodermic treatment has been hitherto tried, he next adverts to the accidents which its employment has not infrequently given rise to, with the view of showing how they may be obviated. These chiefly consist in the production of circumscribed inflammation, abscess, and sloughing, the liability to the production of which has much limited the employment of this means of treatment. Dr. Lente believes that they are chiefly due to the irritant character of the injection employed, and, after having tried various solutions, he has finally adopted the following as the most suitable:—Quinine fifty grains, dilute sulphuric acid 100 minims, carbolic acid five minims, and water one ounce. The quinine and water are heated to a boiling point in a porcelain dish placed over a spirit-lamp, the sulphuric acid being added while stirring with a wooden spatula. The solution is at once filtered into a bottle, and the carbolic acid added. This solution causes as little irritation as injection of morphia or other substances of smaller bulk, for all hypodermic injections, however small, will occasionally induce inflammation, abscess, or even sloughing. The injection is performed by a gold (not gilt) needle, which and the syringe should be kept well washed and oiled. Two punctures are made at two inches and a half or three inches apart, so that the same wet application for the prevention of inflammation may cover both. The injection should be made slowly, waiting for half a minute or a minute until the smarting caused by the first few drops has subsided, and then continuing drop by drop. When the needle is withdrawn a finger should be placed for two or three minutes over the puncture. The best time for the injection is just before or during the cold stage, but it need not be confined to this period. The dose usually administered has been a drachm of the above solution, although in bad cases, in which the production of severe pain and abscess is of comparatively little moment, two or three drachms may be used. In a severe epidemic the dose will have to be repeated every fourteen or twenty days, in some cases every six days, and now and then every day or two, it being not usually necessary to give any other antiperiodic or tonic in the intervals.

Dr. Lente's own operations have been 238 on 134 pe[illegible] or 476 injections; and those of his assistants number

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63 patients, or 302 insertions—giving a total of 389 injections or 778 insertions. Besides these, there have been various cases which have not been recorded. In 104 cases only one injection (two insertions) was used; in forty-seven there were two operations; in twelve, three; in three, four; in eight, five; in one, six; in one, nine; in one, ten; in one, twenty; in one, twenty-nine; and in one, forty. There were twenty-nine patients under eighteen years of age, the youngest being five months, and in no instance has any unpleasant local or general result happened to very young children. A few very young infants were injected a number of times, as vomiting was almost incessant.

In nine cases the method succeeded after the failure of remedies by the mouth; but in seventeen cases no marked effect was produced by the injection. In four of these it was tried only once, and in four others failure resulted from continued fever having been mistaken for intermittent. The injection, indeed, is an important means of diagnosis, as the symptoms at the beginning irregular forms of intermittent are almost identical with those of typhoid fever. In fourteen cases the urgent symptoms were relieved within half an hour; and in fourteen, the injection failing to check the disease during a week, no further trial was made of the means. In some of the successful cases, also, remedies may have been administered by the mouth. In twenty-one cases vomiting was noted as being so obstinate as to preclude giving medicines by the mouth, and generally food likewise. In every one of these this symptom was promptly relieved by the injection. The temperature during the paroxysm varied from 102° to 107°, being, however, rarely as high as 106°. It is to be observed that these cases have occurred during an epidemic that has been prevailing for the past three years, which has proved very rebellious to treatment, and has been characterised by frequent relapses. Where, too, the injections have not arrested the disease, they have often proved of great utility as auxiliaries, relieving vomiting, severe cephalalgia, and other pains, and improving the appetite and strength. The hypodermic method, too, as compared with ordinary treatment, has seldom given rise to severe cerebral symptoms, while it has promptly imparted a feeling of vigour and hopefulness.

"To recapitulate: This method would seem, in the light of our present experience, to be particularly applicable to those fatal cases of the disease called 'pernicious' or 'congestive fever,' in which no reaction—or a very imperfect one—takes place, and a patient dies, as in the collapse of cholera, because neither the stomach nor rectum will absorb medicine, even if they could retain it and there were time for it to act; to cases where vomiting is persistent, or where intense pain or other distress is a prominent symptom; to quotidians, where the paroxysm is so protracted as to afford little time for the action of remedies by mouth or rectum; to patients who cannot tolerate quinine, on account of cerebral symptoms; and to the cases of the poor and of labouring men, where promptness in action and cheapness of material are important considerations. Indeed, in an economic view, especially in the case of armies, hospitals, and eleemosynary institutions, its advantages are very manifest, particularly in regions where the doses by the mouth need to be enormous; and from all parts of the world, temperate as well as tropical, where malaria prevails at all, we have reports of the necessity of these extreme doses in certain cases of epidemics."

Several cases are given in illustration of the paper.

Anæsthesia by the Injection of Chloral.

A recent communication to the Académie des Sciences, made by Professor Oré of Bordeaux, has excited a good deal of attention. Having occasion to perform an excision of the calcaneum for necrosis in a man twenty-two years of age, he resolved to induce anæsthesia by the injection of chloral into the veins, a procedure he had already derived advantage from in two cases of tetanus. One of the radial veins having been opened by a capillary trocar, the solution of chloral (ten grammes in thirty) was slowly introduced, and when twelve grammes of the solution had been thrown in, the patient, whose respiration continued perfectly regular, declared that he felt quite overcome with the desire to sleep. However, the injection was slowly continued until twenty-two grammes had entered the vein, and the desire to sleep had become quite irresistible, the patient resembling a corpse in appearance. Not less than ten minutes were required to produce this result. The operation was now proceeded with, and lasted twenty-five minutes. During the whole time the patient continued in the calmest of sleep, not the slightest cry or moan being heard, and the complete immobility of his features sufficiently indicating the utter annihilation of all sensibility. The respiration continued calm and regular, and, what is remarkable, unattended with those momentary signs of asphyxia which had always been observed in the injections when made in animals, and in the two patients so treated for tetanus. After the operation had been completed, the patient would in all probability have continued for hours in this immovable condition, had not a means of arousing him been tried, which had been found so efficacious in animals—namely, the electric current. One of the conductors having been placed over the left side of the neck, and the other over the epigastrium, after the passage of the current, with forcible and rapid intermissions, the patient awoke, and, sitting up in bed, began talking and shaking hands with everybody around him. He declared that he had felt or perceived nothing whatever. This state of ebriety continued for more than an hour, and was terminated by crying. He then fell into a quiet sleep, and all passed away. "Thus, in this way," Professor Oré observes, "we are enabled to exactly dose the anæsthetic substance, induce insensibility for as long as may be necessary, and then dissipate the effects at will. Is not this a true solution of the problem of anæsthesia?"

M. Oré feels assured that the complete absence of all irritation of the respiratory organs, as contrasted with what he had observed in his experiments, was due to the precautions he had taken. Believing that the slight appearance of asphyxia, attempts at exspuition, etc., which he had observed in animals at the moment of introducing the chloral, were due to the presence of very minute foreign bodies in the solution, he took the precaution of interposing in the syringe employed in this case a sieve which intercepted even the smallest particles.

The Mecca Pilgrimage of 1874.

Dr. Buez, writing to the *Gazette Hebdomadaire* (No. 19) from Djeddah, reports that the pilgrimage has been accomplished this year under the most favourable conditions as regards the public health; so that if Europe is to suffer from an attack of cholera this summer, it will not be due to a new importation from India. There is, therefore, no danger of encountering a new *épidémie d'origine*, which is a far more dangerous affair than the *efflorescence* of an old ill-extinguished epidemic—of the tail of a cholera epidemic. It cannot be doubted, he observes, that the manifestations of late met with in Europe are but recrudescences or remains of the great epidemic of 1864-65, which left ill-extinguished foci in several localities, capable of being again brought into activity by favourable conditions, but always manifesting a decreasing vitality; so that if a renewed importation can be prevented, such foci will gradually die out. Still, as long as these secondary foci do persist there is always a possibility of the malady acclimatising itself in Europe.

The pilgrimage has been this year as large as last year, and there seems no sign that it will diminish in size in future. From September 27, 1873, to January 25, 1874, there arrived in the Hedjaz by sea 46,196 pilgrims, of which number 35,773 disembarked at Djeddah, and of these 30,223 came by steamers. The great religious festival took place at Mecca on January 28 to 30, amidst a concourse of between 150,000 and 160,000 pilgrims and merchants. There were 80,000 sheep, 200 oxen, and 50 camels sacrificed under supervision. None were slain outside the *abattoirs* well supplied with water, and the victims were buried in numerous pits which had been prepared for their reception. Amidst this enormous crowd, only 92 deaths occurred during the three days—a surprisingly small number when it is remembered that in this vast agglomeration there were women, children, aged persons, and persons exhausted by fasting and religious excitement. The great bulk of the pilgrims returned to Djeddah, while others visited Medina. The vessels, before the re-embarkment, are subjected to inspection; but the Sanitary Commission has had a difficult time of it in resisting the cupidity of the shipping agents, who persisted in overcrowding the ships.

Adelaide Hospital, Dublin.—At the annual examination, held at the close of the past winter session, the clinical prizes were awarded as follows:—Senior Medical, Mr. Meredith and Mr. Pollen (equal); Junior Medical, Mr. T. R. Hamilton; Senior Surgical, Mr. T. R. Hamilton; Junior Surgical, Mr. Oldham; Gynæcological Prize, Mr. Neill.

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REVIEWS.

The New Chemistry. By JOSIAH P. COOKE, jun., Erving Professor of Chemistry and Mineralogy in Harvard University. (The International Scientific Series.) London: Henry S. King and Co. 1874.

THIS little book is admirably adapted to supply a want very frequently felt by a large portion of the members of the medical profession—that portion, namely, whose hair is beginning to turn grey. For we (let us candidly betray the secret), absorbed in the duties of our arduous life, have lived through a great transformation of one of the sciences on which our whole art is founded, most of us unconscious of the change; so that we continually find our ears assailed by unfamiliar terms, and new principles taken for granted, in one of the regions of science that we legitimately supposed we had made our own. Nothing, therefore, could be better adapted to our wants than a brief summary of chemical facts, luminously arranged, not overcrowded with details, and especially designed to make clear the differences between the new and the old manner of regarding them, so that one can easily see how to fit his old facts into the new theories. From this point of view the perusal of this book is a real delight. It assumes but little knowledge in the reader, and yet takes him rapidly through the salient points of the modern views, till it lands him in the theory of the structure of the most complex organic compounds. The book consists of lectures given before the Lowell Institute of Boston, in 1872, which were designed for an audience who had studied the elements of the subject under the dualistic system. As the basis of the whole exposition, the law of Avogadro is taken—namely, that equal volumes of all substances, when in the state of gas, and under like conditions, contain the same number of molecules. From this point, seizing the idea of the molecule, and bringing clearly out the difference of the molecules from the *atoms* of which they may be constructed, Dr. Cooke proceeds to the questions of their grouping, and their measurement by means of light. Here he refers to Sir W. Thompson's researches, which (guided also by the degree of force required to reduce a film of water to a certain thinness) represent the size of the molecules of water at from the two hundred and fifty millionth to the five thousand millionth of an inch; so that if we conceive a sphere of water as large as a pea to be magnified to the size of the earth, the magnified structure would be coarser-grained than a heap of small lead shot, but less coarse-grained than a heap of cricket-balls. Then the determination of the weights of the molecules and of their combining numbers is explained; and the theory of combustion, wherein it is pointed out how the old doctrine of phlogiston was in reality an imperfect anticipation of the modern doctrine of force. Nothing indeed is more interesting throughout the volume than the clear way in which the use of theories is kept before the mind—as a means of formulating existing knowledge for the purpose of gaining more, but never as a final expression of the truth. Himself an advocate of the real existence of molecules in the most absolute sense, the author yet reminds us repeatedly that this view is but provisional, and may be destined to follow in the footsteps of so many previous methods of presenting the then ascertained phenomena of chemistry. In the present state of chemistry, too much importance cannot be attached to this attitude of mind; for, in spite of the great advances made,—in spite of the splendid way, *e.g.*, in which possibilities of structure suggested by the symbols have been followed out to the production of new substances,—we may still perhaps be justified in feeling that new simplifications are possible. The relations of *force*, and especially the opposite relations of force in the converse chemical processes of synthesis and analysis, etc., may come to furnish unsuspected keys, when the thought of *substance* shall have a little relaxed its hold. Already perhaps we see signs of an advance in this respect, in the more ample evidence which the "new chemistry" affords that the difference in properties determined by mere difference of "structure" may be not less than that dependent on diversity of substance. May we even now look for a time when all chemical processes and qualities shall be capable of being presented under the aspect simply of force-relations?

But the most interesting part of the book commences with the treatment of acids and alkalies, and the new view of their union, which represents it as, in each case alike, the "substitution" of a simple or compound "radical" for a molecule of hydrogen. With this is introduced the subject of "quantivalence," which is represented as expressing the number of "bonds" left unsatisfied in any given case; and due stress is laid upon the fact that these always increase or diminish in number by two at a time, indicating at once the polarity of the force expressed, and that molecules of the same substance may be united with each other as well as with those of other kinds. Finally, organic substances are treated of, and it is shown that the views which have been developed step by step find in them a simple and natural expression: how the arrangement of H, N, and O, variously combined around nuclei composed of multiple elements of carbon, presents in a perfectly normal order to the eye the structure of highly complex organic compounds. The characteristic of carbon which fits it to be thus the pivot, as it were, of this more multifold combination is "the power which its atoms possess of combining among themselves to an almost indefinite extent;" and with this the fact that it is *quadrivalent*, or that each of its molecules can unite with four others.

By aid of this handy volume everyone may readily and pleasantly become acquainted with the present aspect of chemical philosophy. It is not brilliant, perhaps, but it is clear and straightforward, and the end is kept steadily in view from the beginning. Unfortunately, it is marred by one or two misprints, the chief of which is in the list of the alcohols given on page 309.

Tests adapted to Determine the Truth of Supernatural Phenomena. By GEORGE HARRIS, F.S.A., Barrister-at-Law, Fellow of the London Anthropological Society, etc. London: Baillière, Tindall, and Cox, King William-street, Charing-cross. 1874.

THE above is the substance of a paper read before the London Anthropological Society at one of their meetings, and published by request. We read it through in hopes of obtaining some enlightenment on a somewhat abstruse subject, but we are fain to confess that Mr. Harris has not started any very novel ideas in expounding the tests which he recommends for adoption. He very candidly admits, however, that all he ventured to aim at was to lay down some general principles on which any examination into this matter ought to be based, leaving it to others to mature the plan, and to follow up to completion what he has commenced. Mr. Harris modestly desires to act the part of pioneer only in "this great field of inquiry"; but if, as he says, "a noble arena is here open for philosophical investigation," we think he should lay aside his modesty, and be himself the first to appear therein, more especially as he confidently asserts that, if this investigation be carried out in a manner worthy of its importance, the result will not fail to be attended with corresponding success.

Animal Physiology: the Structure and Functions of the Human Body. By JOHN CLELAND, M.D., F.R.S., Professor of Anatomy and Physiology in Queen's College, Galway. London and Glasgow: Collins. Pp. 325.

A BOOK like this, fairly well done, and therefore reliable, whilst at the same time sensibly and plainly written, has long been a desideratum. It is only experience which will show whether the book exactly meets the object for which it was intended; but the examination we have given it certainly induces us to receive it most favourably. It is not easy to write a book of this kind, though generally it is supposed to be so, but the difficulty seems here on the whole fairly well met and overcome. It is a question how far in such books purely human physiology should be given, and how far the functions of the lower animals should be used instead. It is so easy to obtain actual specimens from animals perfectly suited for school science-teaching, whilst it is quite plain that such specimens from the human subject are quite inadmissible.

THE ERECTION OF A STATUE OF CLAUDE BOURGELAT.—It has been determined to erect in the principal courtyard of the Veterinary School of Alfort a statue of Claude Bourgelat, the founder of veterinary teaching in France, whence it has spread to the principal countries of Europe, the founders of all other existing veterinary schools having been themselves pupils at Alfort. All willing to aid in so laudable an object may forward subscriptions to M. Prudhomme, 60, Rue des Tournelles, Paris.

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GENERAL CORRESPONDENCE.

VIVISECTION.

LETTER FROM MR. JOHN ROBSON.

[To the Editor of the Medical Times and Gazette.]

SIR,—In an article on this subject published in your issue for last Saturday, some remarks are made on a phrase in Mr. Hutton's motion brought before the Convocation of this University at their meeting on the 12th inst.; and as the phrase in question was misprinted in the agenda paper, which was no doubt followed by the writer of the article, it is due to Mr. Hutton that I, as the officer responsible for the correctness of the agenda, should inform you that Mr. Hutton, on rising to propose his motion, stated that the phrase, "when not intended to be *medical* or curative," should have been "*remedial* or curative," as he had so written it in the manuscript notice. That such was the fact I have since ascertained by referring to his manuscript. The mistake, therefore, was not his, but mine and the printers'.

Requesting you to have the kindness to insert this correction in your next issue, I am, &c., JOHN ROBSON,
Clerk of Convocation.

MESSRS. CORBYN AND CO.'S INHALER.

LETTER FROM MESSRS. CORBYN AND CO.

[To the Editor of the Medical Times and Gazette.]

SIR,—Referring to a letter in your issue of the 16th inst., we beg leave to state that it has never been claimed by us that our inhaler is superior to all other inhalers; nor have we stated that its special features are entirely novel; nor, indeed, if we understand the term "eclectic" correctly, do we suppose that Messrs. Bullock and Reynolds would assert each feature of their apparatus to be original. All we attempted was to improve on the already convenient instrument of Messrs. Maw, Son, and Thompson. It would not be difficult, however, were the matter of sufficient importance, to show that we have also improved on that of Messrs. Bullock and Reynolds; and there is at least one important particular not mentioned by those gentlemen—viz., that we have been able to produce an inhaler admitted by them to be efficient (complete in case, with thermometer and nasal-piece) at half the cost of the "Eclectic" similarly fitted, and that we have done away with all necessity for the trouble and expense of a spirit-lamp.

We are, &c., CORBYN AND CO.

300, Holborn, W.C., May 19.

REPORTS OF SOCIETIES.

ROYAL MEDICAL AND CHIRURGICAL SOCIETY.

TUESDAY, APRIL 28.

Dr. C. J. B. WILLIAMS, F.R.S., President, in the Chair.

DR. DOBELL read "A Contribution to the Natural History of Pulmonary Consumption, consisting of an Analysis of 100 Male Cases of Hæmoptysis." The paper was based upon an analysis of 100 cases of hæmoptysis in males, recorded on a plan of inquiry so designed that it should as far as possible avoid the chance of prejudice from preconceived opinions and impressions, and include all the facts essential to the inquiry in a tabular form. The author considered that the 100 cases represented an average succession of more than 600 cases, in consequence of the rigorous system of rejections adopted in collecting them; at the same time that they formed a fairer basis for statistics than if no selections had been made, because incomplete and unreliable reports were excluded. The plan adopted was fully detailed. Eighteen tables were given. In the principal table was shown "the relation between loss of weight, cough, hæmoptysis, and lung disease in 100 male cases of hæmoptysis tabulated under seventy-four headings;" each line in the horizontal direction representing a complete case, and each column giving the answer "yes" or "no" to the question at its head. The primary object of the investigation was to assist by clinical observation in settling the important question of the true position of hæmoptysis in the natural history of pulmonary consumption. But it had been necessary to this end that a number of circumstances connected with each case should be recorded, and these may form a basis for many other inquiries than time had allowed to be worked out in this paper. The author had therefore made it an especial object in arranging and tabulating the facts to place them in such a form that others might work from them as well as himself. A digest of the contents of Table 1 was given, showing the results obtained by each column, and comparing one with another. In a statistical point of view, Dr. Dobell considered that, notwithstanding the plan of rejections adopted, one hundred cases was too small a number to form the basis of final conclusions; he therefore wished them to be regarded as only a contribution to the subject, and hoped that others with more time at their disposal would follow up and supplement his contribution with more cases similarly analysed, until the number was sufficiently large. The author observed that he had studiously avoided entering upon questions of pathological histology, his object being to keep as strictly as possible to a simple analysis of the clinical facts presented by the cases. He pointed out that the cases, when tabulated, arranged themselves naturally into groups; first into three large clinical groups characterised by the relation in point of time between the first hæmoptysis and the first loss of weight; into three other groups characterised by the relation in point of time between the onset of first cough and the occurrence of first hæmoptysis; and again into two other groups characterised by the relation in point of time between the onset of first cough and the occurrence of first loss of weight; and others not enumerated. These natural groups formed the basis of some of the supplementary tables, of which there were seventeen. The first of these (Table 2) was an analysis of the conditions of the lungs in the 100 cases. Table 3: An analysis of twelve cases in which first cough began at the same time as first hæmoptysis. Table 4: An analysis of eight cases in which first hæmoptysis occurred before first loss of weight. Table 5: An analysis of ten cases in which first hæmoptysis and first loss of weight occurred at the same time. Table 6: An analysis of eighty-two cases in which first hæmoptysis occurred after first loss of weight. Table 7: A comparative analysis of Tables 4, 5, and 6. Table 8 gave the total loss of weight and the rate of loss per annum in the three groups of cases analysed in Tables 4, 5, and 6. Table 9 showed the loss of weight, the time in which it had occurred, and the rate of loss at different stages of lung disease. Tables 10 to 18 analysed the cases grouped under different stages of lung disease. Details were given of the cases in some of the most interesting of the clinical groups, and commentaries offered upon them, in which the meaning of the hæmoptysis in each case was especially considered.

DR. THEODORE WILLIAMS said a number of topics had been brought foward in reference to hæmoptysis. The chief point attempted to be established was, that loss of weight always preceded hæmoptysis; but the author must remember that in order to insure his cases being those of undoubted phthisis, he had eliminated all cases of hæmoptysis unaccompanied by loss of weight, thereby making sure of his conclusion beforehand. A reference to the fortnightly weighings of the Brompton Hospital would easily determine this point. Dr. Williams could call to mind several instances in which hæmoptysis was not followed by loss of weight. He had noticed patients gain flesh to a large extent after large hæmoptysis. The causes alleged by patients for hæmoptysis were diverse and too frivolous to give much information, and should not be too much relied upon. The true causes must be sought for in the pathology, and not in the clinical history of the disease. When cavities existed, the hæmorrhage could generally be traced to the bursting of an aneurismal dilatation of a branch of the pulmonary artery. The hæmoptysis of the second stage could be explained in a similar way, the vessels being laid bare and occasionally penetrated by the ulcerating process. The hæmorrhage of the first stage had been accounted for by a fragile state of the arteries arising either (1) from fatty degeneration, or (2) from atheromatous changes. Recently Dr. Rasmussen had assigned minute aneurisms of the branches of the pulmonary artery as a cause. Hæmoptysis prevailed to a greater extent among males than females—63 per cent. of males to about 37 per cent. of females; if the hæmorrhage was profuse, about 35 per cent. of the former to

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18 per cent. of the latter. He wished to draw attention to another form of "hæmorrhagic" phthisis, which had been recognised by Dr. C. J. B. Williams and Dr. Peacock. It was marked by copious hæmoptysis and very slight physical signs. The general health was at first good, but the after-progress proved the cases to be phthisis.

Dr. SYMES THOMPSON thought that if the paper had contained more pathological details many would have been ready to debate, but these had been avoided generally. Two or three points had been illustrated by a case or two. It appeared that if the cases of hæmoptysis were grouped together, and compared with those in which there was no hæmoptysis, the duration of life was greater in those with hæmoptysis. In cases of hæmoptysis there was not unfrequently an improvement in weight, the breathing being freer and the digestion improved, and thus the weight was increased.

The PRESIDENT thought the subject was full of interest. Hæmorrhage was usually preceded by symptoms of ill-health, cough, or morning expectoration. It might come on without these symptoms having preceded it, but always some previous pathological change. He thought the earliest sign of phthisis was some change in the lymphatic system, and a swelling of the glands. He did not think hæmoptysis ever took place in a healthy lung; there was always some cause of fragility in the lung to produce it.

Dr. DOBELL was glad to hear that the President agreed with the statement that there was some constitutional symptom before hæmoptysis. He had drawn attention in the paper to the loss of weight before hæmoptysis, and not to that which is met with afterwards. With regard to the quantity of blood spat, he had taken the cases where there was always more than streaks of blood in the sputa—not less than half a drachm.

OBITUARY.

CHARLES JAMES FOX, M.D.

THE late Dr. Fox was the son of Dr. Joseph Fox, formerly Physician to the London Hospital; he was born in London January 25, 1799, and studied and took his degree at the University of Edinburgh; he subsequently became a Member of the Royal College of Physicians of London. He married, in 1828, Miss Guion, the daughter of Captain Guion, R.N., and in the same year commenced practice at Margate, but shortly removed to Billiter-street, in London. In 1839 he removed to 30, New Broad-street, and with this residence his name is chiefly associated, as he practised there successfully for twenty-six years. The encroachments of the railways and the subsequent changes in the neighbourhood necessitated his subsequent removal, first to Finsbury-circus and then to Finsbury-square, where he practised till suddenly stricken with paralysis in the midst of his work. He may be truly said to have died in harness, for, though he subsequently rallied, he never again left his room, and at last calmly sank to rest on May 12, 1874. Although Dr. Fox was not known as a medical writer, he was a gentleman of great powers of observation, and his accumulated experience, gentle kindly ways, and unvarying urbanity to his colleagues and those of his brethren who met him in consultation, endeared him to a large circle of patients and friends. He held the appointments of Consulting-Physician to the Royal Hospital for Diseases of the Chest, to St. Elizabeth Hospital, to the Jews' Hospital, Tower Hamlets Dispensary, and the Metropolitan Assurance Company. He was much sought after by members of the Jewish faith, by whom he was greatly beloved; and in his own (the Roman Catholic Church) he was held in such high regard for his estimable and charitable life, that of their own accord he was buried by his clergy with all the honours of a pontifical high mass of requiem.

ROBERT COWIE, M.A., M.D.,

DIED at his residence at Lerwick on the 8th instant, after an illness of a few hours, aged thirty-two. He received his education partly at Aberdeen, where he took the M.A. degree, and partly at the University of Edinburgh, where he was a student of the late Sir James Simpson. He succeeded to his father's practice at Lerwick, and held several public appointments. As Admiralty Surgeon at the port he evinced great interest in the Royal Naval Reserve. He was the author of a handbook of the Shetland Islands, a new edition of which he complete only a few days before his death.

MEDICAL NEWS.

KING AND QUEEN'S COLLEGE OF PHYSICIANS, IRELAND.—At examination meetings of the College held on Tuesday, Wednesday, and Thursday, May 12, 13, and 14, the following candidates were deemed qualified to obtain the Licence to practise Medicine:—

Billing, James Pymar.	Longford, Henry.
Dixon, Henry George.	Patterson, Alfred.
Langan, Francis.	Taylor, James.
Limrick, Osborne Edward Barber.	

The Licence in Midwifery was granted to:—

Dixon, Henry George.	Longford, Henry.
Limrick, Osborne Edward Barber.	Patterson, Alfred.

ROYAL COLLEGE OF SURGEONS OF ENGLAND.—The following gentlemen, having undergone the necessary examinations for the diploma, were admitted Members of the College at a meeting of the Court of Examiners on the 19th inst., viz.:—

Bradford, Peter, Hanley, Staffordshire, student of University College.
Burke, William Harry Emeris, Kibworth, Leicestershire, of University College.
Cartwright, Alexander, Old Burlington-street, of King's College.
Clarkson, John Wilkins, Surbiton, of St. Thomas's Hospital.
Collins, Walter Charles Grosett, M.B. Aber., Chew Magna, Somerset, of St. Bartholomew's Hospital.
Cosham, William Raymond, M.B. Aber., Clevedon, Somerset, of the Bristol School.
Davis, Robert, Gateshead, of the Newcastle School.
Denby, Timothy Curtis, Bradford, of the Leeds School.
Latour, Harry Archibald de, Richmond, Surrey, of King's College.
Kirby, Albert Edward, Eastcheap, of King's College.
Ranking, George Speirs Alexander, B.A. Cantab., Tunbridge Wells, of St. Bartholomew's Hospital.
Ranking, John Ebenezer, B.A. Oxon., Tunbridge Wells, of St. Bartholomew's Hospital.
Sandford, Horace Charles, Kensington-road, of St. Thomas's Hospital.
Schlesinger, Barthold Maurice Martin, L.S.A., Chichester-street, Hyde-park, of St. Mary's Hospital.

The following gentlemen passed on the 20th inst., viz.:—

Amyat, Thomas Howes Edward, Diss, Norfolk, student of King's College.
Campbell, Colin George, Dublin, of the Dublin School.
Day, Charles Henry, Brightwell, Oxon., of St. Bartholomew's Hospital.
Farnell, Henry Dawson, Great College-street, of University College.
Garlick, George, Great James-street, of University College.
Harper, Gerald Samuel, Christchurch, Canterbury, New Zealand, of St. George's Hospital.
Heddy, William Jackson, Redcliffe-gardens, S.W., of Guy's Hospital.
Lawrence, Thomas George, Rutland-street, N.W., of University College.
Lees, David Bridge, M.A. and M.B. Cantab., Manchester, of Guy's Hospital.
Lilley, George Herbert, Ware, Herts, of University College.
Moore, George Edward, Hoxne, Suffolk, of King's College.
Parker, Alfred Edward, Finborough-road, S.W., of St. George's Hospital.
Prichard, Arthur William, Clifton, of the Bristol School.
Slaughter, John Edward, Farningham, of St. Thomas's Hospital.
Sparrow, Walter Whitchurch Bryant, Saltby, near Birmingham, of the Birmingham School.
Talbot, Russell Main, L.R.C.P. Edin., L.S.A., Bromley, Middlesex, of Guy's Hospital.
Walby, Thomas, Liverpool, of the Liverpool School.
Willans, William Blundell, Singapore, of King's College.

The following passed on the 21st inst., viz.:—

Blanch, Henry John Thomas, Shacklewell, student of St. Bartholomew's Hospital.
Prockter, Alfred Edgcumbe, Cheltenham, of the Bristol School.
Reid, Thomas Whitehead, Canterbury, of St. Bartholomew's Hospital.
Ross, Douglas McKissock, Brighton, of the Glasgow and Edinburgh Schools.
Scott, Edward, L.S.A., Honiton, Devon, of St. Thomas's Hospital.
Simpson, Walter Samuel, Pontefract, of the Leeds School.
Tattersall, Lord, L.S.A., Bacup, Lancashire, of St. Bartholomew's Hospital.

Seven candidates passed the examination in Surgery, and when qualified in Medicine will be admitted Members of the College; and eighteen candidates having failed to acquit themselves to the satisfaction of the Court, were referred to their studies for six months.

The primary examination for the Fellowship of the College takes place this day (Friday); about seventy gentlemen have entered their names.

APPOINTMENTS.

*** The Editor will thank gentlemen to forward to the Publishing-office, as early as possible, information as to any new Appointments that take place.

BOURKE, WILLIAM, M.B., C.M.—Resident Physician at the Royal Infirmary, Edinburgh.

CASH, ALFRED, M.B., C.M., M.R.C.S.—Resident Surgeon at the Royal Infirmary, Edinburgh.

CHURCH, HENRY M., M.B., C.M., Resident Physician at the Royal Infirmary, Edinburgh.

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DRAPER, MATTHEW RYDER, L.S.A.—Assistant Resident Medical Superintendent at the Bristol Lunatic Asylum, Stapleton.

EVANS, T. D. F., M.R.C.S.—Resident Surgeon at the Royal Infirmary, Edinburgh.

GRASETT, F. LE MAITRE, M.B., C.M.—Resident Surgeon at the Royal Infirmary, Edinburgh.

KIRKWOOD, GEORGE, L.R.C.S.—Resident Surgeon at the Royal Infirmary, Edinburgh.

LEWTAS, JOHN, M.B. Lond.—Honorary Medical Officer to the North Dispensary, Liverpool.

MURRAY, R. D., M.B., C.M.—Resident Physician at the Royal Infirmary, Edinburgh.

SAUNDBY, R., L.R.C.P.—Resident Physician at the Royal Infirmary, Edinburgh.

SMELLIE, G. W., M.B., C.M.—Resident Physician at the Royal Infirmary, Edinburgh.

BIRTHS.

FITZGERALD.—On April 3, at Bangalore, Madras Presidency, the wife of Surgeon-Major P. G. Fitzgerald, M.D., of a son.

HAMILTON.—On May 15, at Henry-square, Ashton-under-Lyne, the wife of Alexander Hamilton, L.R.C.P. Edin., of a son.

FAGGE.—On May 18, at 11, St. Thomas's-street, S.E., the wife of C. Hilton Fagge, M.D., F.R.C.P., of a daughter.

SIMMS.—On May 14, at Yew Cottage, Twickenham, the wife of Frederick Simms, M.B., of a daughter, prematurely.

WINKFIELD.—On May 13, the wife of Alfred Winkfield, F.R.C.S., of Beaumont-street, Oxford, of a son.

MARRIAGES.

DU PRÉ—STOKOE.—On May 12, at St. Giles's, Camberwell, James, eldest son of the late Rev. W. M. Du Pré, to Lily, youngest daughter of R. Stokoe, M.D.

GOSSE—BENNET.—On March 4, at St. John's Church, Mount Pleasant, South Australia, John Gosse, M.R.C.S., of Moonta, to Mary, only daughter of the late John Bennet, Esq., J.P., South Rhine, S.A.

STUBBS—WHATELY.—On May 12, at the parish church, St. Peter's, Great Berkhampstead, Herts, Henry Stubbs, M.R.C.S. Eng., of Madely, Salop, to Mary Ann, eldest daughter of G. F. Whately, M.R.C.S. Eng., L.S.A., of Great Berkhampstead.

DEATHS.

CHARLTON, EDWARD, M.D., second son of the late W. J. Charlton, Esq., of Hesleyside, at 7, Eldon-square, Newcastle-on-Tyne, on May 14.

SIMMS, CAROLINE FRANCES, wife of Frederick Simms, M.B., and younger daughter of the late Wm. Wyon, Esq., R.A., at Yew Cottage, Twickenham, on May 15, aged 37.

VADE, the Rev. VICESIMUS KNOX, eldest son of the late J. K. Vade, M.D., of 4, Lower Berkeley-street, Portman-square, at Notting-hill, on May 13.

VACANCIES.

In the following list the nature of the office vacant, the qualifications required in the Candidate, the person to whom application should be made, and the day of election (as far as known) are stated in succession.

BRADFORD INFIRMARY AND DISPENSARY.—Assistant House-Surgeon. Applications, with testimonials, to Mr. C. Woodcock, Secretary, 65, Market-street, Bradford, on or before June 8.

CANCER HOSPITAL, BROMPTON.—Surgeon. Candidates must be M.R.C.S. Eng. Applications, with testimonials, to the Chairman of the Weekly Board, at 167, Piccadilly, W., on or before June 2.

CARLISLE DISPENSARY.—Assistant House-Surgeon. Candidates must be duly qualified and registered. Applications, with testimonials, to Mr. Davidson, Honorary Secretary, Devonshire-street, Carliale.

CARMARTHEN INFIRMARY.—House-Surgeon. Candidates must be duly qualiffed. Applications, with testimonials, to the Secretary, 58, King-street, Carmarthen, on or before June 2.

DERBY COUNTY LUNATIC ASYLUM.—Assistant Medical Officer. Candidates must be duly qualified in medicine and surgery. The office will be vacant on August 2. Applications, with testimonials, to John Barber, Esq., County Lunatic Asylum, Mickleover, Derby.

DERBYSHIRE GENERAL INFIRMARY, DERBY.—Assistant House-Surgeon. Applications, with testimonials, to Mr. S. Whitaker, 4, Victoria-street, Derby.

GENERAL HOSPITAL, BIRMINGHAM.—Resident Registrar and Pathologist. Candidates must be duly qualified. Applications, with testimonials, to the House-Governor, on or before May 25.

GLASGOW ROYAL LUNATIC ASYLUM.—Resident Physician-Superintendent. Candidates must be duly qualified. Applications, with testimonials, to J. Roxburgh Strong, Esq., C.A., 110, West George-street, Glasgow, on or before June 12.

LIVERPOOL DISPENSARIES.—Assistant Resident House-Surgeon. Candidates must be duly qualified, Applications, with testimonials, to the Secretary, 34, Moorfields, Liverpool, on or before May 27.

NEWCASTLE-ON-TYNE INFIRMARY.—Junior House-Surgeon. Candidates must be duly qualified and registered. Applications, with testimonials, to the Secretary, on or before May 30.

ROYAL FREE HOSPITAL.—Junior House-Surgeon. Candidates must be duly qualified. Applications, with testimonials, to the Secretary, on or before June 3.

ROYAL HOSPITAL FOR DISEASES OF THE CHEST, CITY-ROAD, E.C.—Physician. Candidates must be Fellows or Members of the Royal College of Physicians of England. Applications, with testimonials, to C. Lowther Kemp, Secretary to the Council, before June 4.

ST. THOMAS'S HOSPITAL.—Resident Assistant-Physician. Candidates must be duly qualified. Applications, with testimonials, to the Treasurer, at the office, St. Thomas's Hospital.

SURREY COUNTY LUNATIC ASYLUM, NEAR WANDSWORTH-COMMON RAILWAY-STATION.—Junior Assistant Medical Officer. Candidates must be duly qualified. Applications, with testimonials, to Dr. Bigga, Superintendent, on or before May 23.

UNIVERSITY COLLEGE HOSPITAL.—Resident Medical Officer. Applications, with testimonials, to John Robson, B.A., Secretary to the Council, on or before May 23.

WESTMINSTER HOSPITAL.—House-Surgeon. Candidates must be qualified to practise under the Medical Registration Act of 1858, and will be subjected to a competitive examination, and are to send in their names to the Secretary, on or before June 1.

WESTMINSTER UNION.—A duly qualified Medical Practitioner in Surgery and Medicine. Candidates will be required to reside within one mile of the Union School at Tooting, Surrey. Applications, with testimonials, to the Clerk of the Union, at the Union office, Poland-street, Oxford-street, on or before May 27.

WESTERN INFIRMARY, GLASGOW.—Superintendent. Candidates must be registered medical practitioners. Applications, with testimonials, to the Honorary Secretary, on or before June 15.

WEST RIDING LUNATIC ASYLUM, WAKEFIELD.—Junior Practitioner or Senior Student, to act as Clinical Assistant. Applications, with testimonials, to Dr. J. Crichton Browne, at the Asylum, on or before May 23.

WOLVERHAMPTON AND STAFFORDSHIRE GENERAL HOSPITAL, WOLVERHAMPTON.—House-Surgeon. Candidates must be duly qualified. Applications, with testimonials, to the Chairman of the Medical Committee, on or before June 1.

UNION AND PAROCHIAL MEDICAL SERVICE.

*** The area of each district is stated in acres. The population is computed according to the census of 1871.

RESIGNATIONS.

Daventry Union.—Mr. B. C. Gowing has resigned the First District; area 14,739; population 6142; salary £60 per annum.

Salford Union.—Mr. Robert N. Ingle has resigned the Workhouse; salary £80 per annum.

Skirlaugh Union.—The Aldborough District is vacant; area 15,750; population 2162; salary £40 per annum.

Swaffham Union.—Mr. John Ewart has resigned the Saham Toney District; area 12,551; population 2537; salary per case.

APPOINTMENTS.

Cranbrook Union.—Richard Minors, M.R.C.S. Eng., L.S.A., to the Benenden District.

Leicester Union.—Henry Meadows, M.B. and C.M. Edin., to the Third District; John Oliphant, M.D., M.R.C.S. Eng., L.R.C.P. Lond., to the Fourth District.

Morpeth Union.—Frederic Wm. Skrimshire, M.R.C.S. Eng., L.S.A., to the Second District.

Pocklington Union.—George M. A. Rudkin, L.K. and Q.C.P. Ire., L.R.C.S. Ire., to the Sutton-upon-Derwent District.

Rochdale Union.—George MacGill, L.R.C.P. Edin., L.R.C.S. Edin., to the Blatchinworth and Calderbrook District, and the Workhouse.

Thingoe Union.—Frederick H. Watson, L.R.C.P., M.R.C.S., to the Fourth and Fifth Districts.

Gateshead.—Mr. Alfred J. M. Edger, as Analyst for the Borough.

Huntingdon.—Mr. Richard Apjohn, as Analyst for the County.

PROFESSIONAL EXAMINATIONS.—The following were the questions on Surgical Anatomy and the Principles and Practice of Surgery at the pass examinations for the diploma of Membership of the Royal College of Surgeons, which were brought to a close on Thursday, viz.:—1. Enumerate in their order, from the skin inwards, the parts which are divided in the operation of lateral lithotomy; point out any arterial anomalies which may give rise to unexpected or unavoidable hæmorrhage. State what vessels or vascular tissues may be wounded in the operation apart from any anomalies; and point out how best to avoid such hæmorrhage, and how to act when it occurs. 2. Describe the nature of the injury which the parts sustain in a compound dislocation of the foot outwards. State the occasional obstacles to the reduction, how they are to be overcome, and how the foot should be kept in position. 3. Describe the symptoms, diagnosis, and treatment of complete subcutaneous rupture of the popliteal artery. 4. Describe the operation for the removal of the entire superior maxillary bone, and name the parts divided. 5. Describe the causes and kinds of fistula in ano, and the various modes of operation employed for their cure. 6. Describe the treatment of a penetrating wound of the cornea. The following were the questions on the Principles and Practice of Medicine, viz.:—1. Mention the incubative period, and describe the course and character of the fever and of the eruption, in scarlet fever, measles, and small-pox; and mention the complications which are most likely to arise in each disease. 2. Mention the different circumstances under which blood may be expectorated or vomited; and state how you would distinguish the several sources. Mention the proportion of opium contained in the following preparations of the British Pharmacopœia:—Pulvis ipecacuanhæ compositus, pulvis cretæ aromaticus cum opio, pulvis kino compositus, tinctura opii, tinctura camphoræ composita, tinctura opii ammoniata, pilula saponis cum opio, confectio opii; and the proportion of morphia in the liquor morphiæ hydrochloratis. State the doses in which the different

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preparations may be given, and the purposes to which they are severally more especially adapted. Write prescriptions for an anodyne draught and for a diuretic mixture.

COLLEGE LECTURES.—Mr. G. W. Callender, F.R.S., will commence his course of three lectures "On the Formation and Early Growth of the Brain of Man," in the theatre of the Royal College of Surgeons, on Monday, June 1, at four o'clock, terminating his course on the 5th. He will be succeeded by Professor Holmes, who will deliver six lectures "On the Surgical Treatment of Aneurism in its various forms," in continuation of his course of last year. The respective lectures will be delivered on Mondays, Wednesdays, and Fridays. On June 11 the Council will proceed to the nomination for election in July of the several professors and lecturers for the ensuing year. The present holders of the appointments, with the exception of the Professor of Dermatology, are not candidates for re-election.

MR. JOSEPH BLACKSHAW, late Medical Officer for the Workhouse and Stockport District of the Stockport Union, Cheshire, has obtained a superannuation allowance of £100 per annum.

IN the four weeks ending the 9th inst., thirty-seven cases of small-pox occurred in Bradford.

THE Wanderers' Club has made its local habitation at 4, Park-place, St. James's-street. It is announced that it is intended to meet the requirements of officers of the army and navy, the diplomatic service, and scientific explorers and travellers of note. Already 300 members have joined. A West-end club of this nature was much wanted, as the principal clubs keep applicants waiting for months or years.

THE total number of deaths registered in the Punjaub during the week ending March 21 last, has decreased from 5279 in the week ending March 14, to 5077. Lahore and Delhi are the only districts where the death-rate can be considered high—namely, twenty-six per mille. There was no death registered under the head of cholera. The total deaths from small-pox, which in the previous week were 297, have risen to 303. Two deaths from this disease were registered in Delhi and four at Rewâri. The total deaths in Amritsar, which, in the week ending February 28, had fallen to the unusually low figure of fifty-two, have for the last two weeks been ninety-six. The total deaths of Pânipat also have risen.

TASTELESS COD-LIVER OIL.—℞. Cod-liver oil ʒij., compound spirits of lavender, brandy, of each ʒj.—*New York Medical Record*, May 1.

MORTALITY OF LONDON.—The deaths in London last week numbered 1288, which was 178 below the average. Thirty-eight persons died from measles, not one from small-pox. To the seven principal diseases of the zymotic class 153 deaths were referred, and these were 101 below the average number.

HEALTH OF SCOTLAND.—During the month of April, 1874, there were registered in the eight principal towns of Scotland the deaths of 2636 persons. Allowing for increase of population, this number is 96 under the average April mortality of the last ten years. A comparison of the deaths recorded in the eight towns shows that during April the annual rate of mortality was 20 deaths per thousand persons in Leith, 21 in Perth, 23 in Aberdeen, 24 in Greenock, 26 in Edinburgh, 29 in Dundee, 30 in Glasgow, and 32 in Paisley. Of the 2636 deaths registered, 1062, or 40·3 per cent. were of children under five years of age. In Perth 19·1 per cent. of the persons who died were under five years of age; in Paisley, 33·1; in Edinburgh, 37·1; in Aberdeen, 39·0; in Greenock, 39·1; in Glasgow, 42·1; in Dundee, 43·7; and in Leith, 45·3 per cent.

HYDRATE OF CHLORAL IN PERTUSSIS.—Dr. Bordley states that he has found chloral a valuable agent, exerting not only a palliative, but a curative effect. For a child a year old he commences with half a grain, repeating it every three or four hours, and increasing the dose by half a grain for each additional year. The dose may be increased from a half to one grain daily, according to the tolerance of the drug and the severity of the case. In some cases the increase may be greater and more rapid, but in the majority the above suffices. —*American Journal of Medical Sciences*, April.

PHTHISIS IN THE AMERICAN PRISONS.—Dr. Leach, of Philadelphia, has contributed an important paper to the April number of the *American Journal of Medical Sciences*, based upon an extensive series of statistical observations, in which he shows that, owing to the insufficient space allowed for prisoners, death from consumption is excessively prevalent in these establishments. "Men convicted, it may be of some petty crime," he says, "are sentenced by our courts to a few months' imprisonment, but virtually they are *sentenced to death*. They are incarcerated in cells originally intended for one convict, but now crowded with others. A few months suffice, and the convict perishes, or leaves with the germs of phthisis sown, that in future years will end his existence."

NOTES, QUERIES, AND REPLIES.

He that questioneth much shall learn much.—*Bacon.*

Tottenham.—M. Duchenne's first memoir was made public in 1857.

Inquirer.—Mahomed's papers on the sphygmograph are contained in vols. i. and ii. 1872, and vol. ii. 1873.

A. R.—Certainly it has been tried—some say with admirable results; others are more doubtful.

Gerald V.—The *Spectator* of 9th inst. "Dr. Anstie on Vivisection."

Harry T. F.—The British Lying-in Hospital will for the future be regularly closed for one month every year for the purposes of cleansing. The month of August has been selected for the time of closing.

Cæteris Paribus.—

> "And see! his face is black and full of blood,
> His eyeballs farther out than when he lived;
> Staring full ghastly, like a strangled man."
>
> *Shakespeare, Henry IV.*

Dr. K. H.—The subject was ably treated by Mr. Toynbee in a series of clinical lectures first published in the *Medical Times and Gazette* for 1855.

R. N.—We are not quite sure that we understand our correspondent, but it seems to us all he has to do is to apply for reinstatement.

Student.—1. The list was published in all the medical papers. 2. The hospital in question enjoys no very high reputation as a school.

A CASE IN COMPARATIVE PATHOLOGY.

TO THE EDITOR OF THE MEDICAL TIMES AND GAZETTE.

SIR,—Allow me to offer to your notice the following case of acute dyspepsia in a dog:—The animal in question is a bull-terrier bitch; at the time of the attack it was about ten weeks old. The usual diet of the dog was soaked biscuit, and now and then scraps of meat. However, on the day of the attack it found its way into the kitchen, and proceeded to devour a small plateful of cooked potato and gravy. I saw it first about an hour after this meal, and could not help being struck with its appearance. Whereas the animal is usually very thin, and shaped like a greyhound about the stomach, all that part was now distended, and blown out like a balloon. One felt almost afraid to take the animal up in one's hands, for the skin seemed so tightly stretched that it almost appeared that the least additional pressure would lead to bursting. The dog did not seem at all distressed, but ran about and played, as lively as usual. About two hours after its meal, the animal proceeded to vomit up a good deal of what it had eaten, but for at least three or four hours it was impossible to observe the least diminution of bulk; in fact, I may safely assert that it was not until noon next day that the dog thinned down to its usual size. The points which this case seems to me to illustrate are—firstly, the inability of some organisms to digest starchy matter; and secondly, the large amount of gas generated in the stomachs of young animals by the consumption of food which contains a large percentage of starchy matter.

I am, &c., AN INTENDING MEDICAL STUDENT.

YELLOW FEVER AT HIGH ALTITUDES.

TO THE EDITOR OF THE MEDICAL TIMES AND GAZETTE.

SIR,—I was surprised to see the following statement in a paper in the *Medical Times and Gazette* of the 16th inst., entitled "Yellow Fever in Elevated Districts":—

"Dr. Toner, President of the American Association, Washington, has contributed a paper on the distribution of yellow fever, which is published in a report issued by Dr. Woodward, Supervising Surgeon of the United States Marine Hospital Service. Dr. Toner quotes authorities which show that this disease has never been known in any climate at an elevation of 2500 feet."

With due deference to these authorities, I have ventured to direct Dr. Toner's attention to Dr. Scrivener's paper on "Yellow Fever," which was published in the *Medical Times and Gazette* of November 16, 1872, in which he quotes authorities which show that this disease has prevailed in the cities of Cuzco and Cerro of Pasco, in the Andine regions of Peru; the former is situated at an elevation of 11,000 feet, the latter at 14,000 feet above the level of the sea. Dr. Toner will find these heights confirmed in Dr. Joseph Jones's (Professor of Chemistry and Clinical Medicine, Medical Department, New Orleans) paper, "Outline of Observations and Investigations on Yellow Fever," which was published in the *Medical Times and Gazette* of November 8, 1873. He says:—

"In the remarkable epidemic of yellow fever in Peru in 1855 and 1856, the disease even passed the barriers of the Andes, committing fearful ravages in Andine and Transandine regions at elevations of 14,000 feet above the level of the sea. Even the ancient capital of the Peruvian Empire, Cuzco, at the elevation of 11,378 feet above the level of the sea, was not exempt from the ravages of yellow fever."

It will be seen by the preceding reports that yellow fever is not limited to a certain elevation, and that those who have asserted that "this disease has never been known in any climate at an elevation of 2500 feet" are not acquainted with the facts I have stated. It has been well known in Peru since 1855, and ought to be known to all writers on yellow fever, that no region in that country, from the borders of the Pacific to the mountains of the Andes, has been exempt from the epidemic of yellow fever.

Paris, May 18. I am, &c., A SUBSCRIBER.

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Beverley.—Hilton "On the Therapeutic Influence of Rest," p. 156.

A Subscriber.—*Dublin Journal of the Medical Society*, 1838, vol. xiii., p. 73.

Iota.— "Here lies a young prince whose life was cut short
By medical quacks overturning the land of it;
His finger was wounded, but who could have thought
The doctors would make such a very bad hand of it!"
Gilbert A. a'Beckett.

U. B. B.—Mr. A. Malleck is the Secretary of the Hamilton Canada Medical and Surgical Society.

Senex.—The Glasgow Eye Infirmary was established in 1824. Drs. Mackenzie and Monteith were its originators.

COMMUNICATIONS have been received from—

Dr. O'Brien, Lyme Regis; Dr. Edis, London; Mr. R. Brembridge; Dr. James E. Pollock, London; Dr. Handfield Jones, London; Mr. W. Pretty, Lower Norwood; Mr. J. Robson, London; Mr. F. W. Draper, Boston, U.S.A.; Mr. C. J. Fox, London; Mr. McGill, Leeds; Mr. G. Brown, London; Inquirer; Messrs. Corbyn and Co., London; Mr. Benjamin Vincent; A. R.; The Registrar-General, Edinburgh; Mr. R. Reece, Walton-on-Thames; Messrs. Dunn and Hewett, London; A Subscriber; Sir E. A. H. Lechmere, Bart., London; Professor Max von Pettenkofer, Munich; Mr. S. M. Bradley, Manchester; Student; Dr. Gavin Milroy, Richmond; Mr. P. Bell, Edinburgh; Mr. Richard Davy, London; Mr. Bowater Vernon, London; Mr. Hinton, Bristol; Mr. J. Chatto, London.

BOOKS AND PAMPHLETS RECEIVED—

Prisons and Prisoners, by W. B. Ranken, M.A.—Rajpootana Dispensary, Vaccination, Gaol, and Sanitary Report for 1872-73—Transactions of the Epidemiological Society of London, vol. iii., part 2—London and South-Western Railway Panoramic Guide—Husband's Student's Handbook of Forensic Medicine and Medical Police—Madre Natura *versus* the Moloch of Fashion, a social essay, by Luke Limner—Finlayson on some Indications of a Daily Periodicity in the Vital Functions of Man—Finlayson on the Hours of Maximum Mortality in Acute and Chronic Diseases—Liddle's Report on the Sanitary Condition of the Whitechapel District—Report on the Sanitary Condition of Oxfordshire, by G. W. Child, Medical Officer of Health.

PERIODICALS AND NEWSPAPERS RECEIVED—

Lancet—British Medical Journal—Nature—Medical Press and Circular—Pharmaceutical Journal—Centralblatt für Chirurgie—Berliner Klinische Wochenschrift—Allgemeine Wiener Medizinische Zeitung—Gazette Hebdomadaire—Gazette des Hôpitaux—Le Progrès Medical—La France Médicale—Bulletin Général de Thérapeutique—Butler's Medical and Surgical Reporter—Bulletin de l'Académie de Médecine—La Gazette Médicale—La Tribune Médicale—American Journal of Medical Sciences—New York Medical Journal—Report of the Committee of the Order of St. John of Jerusalem in England—Manchester Guardian—Journal de Médecine et de Chirurgie Pratiques.

APPOINTMENTS FOR THE WEEK.

May 23. *Saturday* (*this day*).

Operations at St. Bartholomew's, 1½ p.m.; King's College, 2 p.m.; Charing-cross, 2 p.m.; Royal Free, 9 a.m. and 2 p.m.; Hospital for Women, 9½ a.m.; Royal London Ophthalmic, 11 a.m.; Royal Westminster Ophthalmic, 1½ p.m.; St. Thomas's, 9½ a.m.

Royal Institution, 3 p.m. Mr. R. A. Proctor, "On the Planetary System."

25. *Monday.*

Operations at the Metropolitan Free, 2 p.m.; St. Mark's Hospital for Diseases of the Rectum, 2 p.m.; St. Peter's Hospital for Stone, 3 p.m.; Royal London Ophthalmic, 11 a.m.; Royal Westminster Ophthalmic, 1½ p.m.

26. *Tuesday.*

Operations at Guy's, 1½ p.m.; Westminster, 2 p.m.; National Orthopædic, Great Portland-street, 2 p.m.; Royal London Ophthalmic, 11 a.m.; Royal Westminster Ophthalmic, 1½ p.m.; West London, 3 p.m.

London Anthropological Society, 8 p.m. Meeting.

Royal Institution, 3 p.m. Dr. W. H. Stone, "On the Theory of Musical Instruments," with Musical Illustrations.

Royal Medical and Chirurgical Society, 8½ p.m. Dr. E. Sparks, "On a Disease of the Skin caused by the Acarus Folliculorum, illustrated by Cases observed in the Dog." Dr. Lockhart Clarke and Dr. Gowers, "On a Case of Hypertrophic Muscular Paralysis."

27. *Wednesday.*

Operations at University College, 2 p.m.; St. Mary's, 1½ p.m.; Middlesex, 1 p.m.; London, 2 p.m.; St. Bartholomew's, 1½ p.m.; Great Northern, 2 p.m.; St. Thomas's, 1½ p.m.; Samaritan, 2½ p.m.; King's College (by Mr. Wood), 2 p.m.; Royal London Ophthalmic, 11 a.m.; Royal Westminster Ophthalmic, 1½ p.m.

28. *Thursday.*

Operations at St. George's, 1 p.m.; Central London Ophthalmic, 1 p.m.; Royal Orthopædic, 2 p.m.; University College, 2 p.m.; Royal London Ophthalmic, 11 a.m.; Royal Westminster Ophthalmic, 1½ p.m.; Hospital for Diseases of the Throat, 2 p.m.

Royal Institution, 3 p.m. Prof. N. S. Maskelyne, "On Physical Symmetry in Crystals."

29. *Friday.*

Operations at Central London Ophthalmic, 2 p.m.; Royal London Ophthalmic, 11 a.m.; South London Ophthalmic, 2 p.m.; Royal Westminster Ophthalmic, 1½ p.m.; St. George's (ophthalmic operations), 1½ p.m.

Royal Institution, 9 p.m. The Very Rev. the Dean of Westminster, "The Roman Catacombs as Illustrating the Belief of the Early Christians."

VITAL STATISTICS OF LONDON.

Week ending Saturday, May 16.

BIRTHS.

Births of Boys, 1182; Girls, 1103; Total, 2285.
Average of 10 corresponding years 1864-73, 2100·4.

DEATHS.

	Males.	Females.	Total.
Deaths during the week	714	574	1288
Average of the ten years 1864-73	684·2	648·5	1332·7
Average corrected to increased population	...	...	1496
Deaths of people aged 80 and upwards	...	...	39

DEATHS IN SUB-DISTRICTS FROM EPIDEMICS.

	Population, 1871.	Small-pox.	Measles.	Scarlet Fever.	Diphtheria.	Whooping-cough.	Typhus.	Enteric or Typhoid Fever.	Simple continued Fever.	Diarrhœa.
West	561359	...	7	...	1	6	...	1	1	4
North	751729	...	8	1	1	9	...	3	2	5
Central ...	334369	...	6	5	1	2	...	...	...	6
East	639111	...	5	14	...	13	...	2	...	4
South	967692	...	12	8	4	11	4	4	1	7
Total	3254260	...	38	23	7	41	4	10	4	26

METEOROLOGY.

From Observations at the Greenwich Observatory.

Mean height of barometer	30·022 in.
Mean temperature	46·6°
Highest point of thermometer	61·2°
Lowest point of thermometer	31·1°
Mean dew-point temperature	38·9°
General direction of wind	N.N.E.
Whole amount of rain in the week	0·08 in.

BIRTHS and DEATHS Registered and METEOROLOGY during the Week ending Saturday, May 16, 1874, in the following large Towns:—

Boroughs, etc. (Municipal boundaries for all except London.)	Estimated Population to middle of the year 1874.*	Persons to an Acre. (1874.)	Births Registered during the week ending May 16.	Deaths Registered during the week ending May 16.	Temperature of Air (Fahr.) Highest during the Week.	Lowest during the Week.	Weekly Mean of Mean Daily Values.	Temp. of Air (Cent.) Weekly Mean of Mean Daily Values.	Rain Fall. In Inches.	In Centimetres.
London	3400701	45·1	2285	1288	61·2	31·1	46·6	8·11	0·08	0·20
Portsmouth ...	120436	26·8	68	63	...	...	...	...	0·47	1·19
Norwich	82257	11·0	36	35	55·0	32·0	43·3	6·28	0·50	1·27
Bristol	192889	48·3	130	73	61·9	35·5	47·4	8·55	0·26	0·66
Wolverhampton ...	70296	20·9	55	36	63·7	31·5	46·3	7·94	0·13	0·33
Birmingham ...	360892	43·0	319	153	59·5	35·3	45·9	7·72	0·31	0·79
Leicester	106202	33·2	51	43	61·5	33·5	46·8	8·22	0·25	0·63
Nottingham ...	90894	45·5	60	38	59·0	35·7	45·5	7·50	0·46	1·17
Liverpool	510640	98·0	423	282	59·1	38·0	46·8	8·22	0·26	0·66
Manchester ...	355839	82·8	288	211	63·0	32·0	47·4	8·55	0·25	0·63
Salford	133668	25·7	99	60	60·5	30·0	45·5	7·50	0·26	0·66
Oldham	86281	18·5	57	52	55·0	...	...	...	0·34	0·86
Bradford	163056	22·6	136	72	57·7	36·1	44·4	6·89	0·23	0·58
Leeds	278798	19·9	258	150	54·0	38·0	45·2	7·33	0·23	0·58
Sheffield	261029	13·3	185	131	56·5	34·0	44·6	7·00	0·24	0·61
Hull	130996	36·0	101	57	58·0	32·0	43·9	6·61	0·40	1·02
Sunderland ...	104378	31·6	85	45	...	...	...	...	...	...
Newcastle-on-Tyne	135437	25·2	107	60	49·0	38·0	41·4	5·22	1·24	3·15
Edinburgh	211691	47·8	132	113	...	...	...	...	...	...
Glasgow	508109	100·4	440	283	60·6	36·0	45·4	7·44	0·20	0·51
Dublin	314666	31·3	205	145	63·7	29·5	48·9	9·39	0·19	0·48
Total of 21 Towns in United Kingdm	7618655	36·6	5540	3385	63·7	29·5	45·6	7·55	0·33	0·84

At the Royal Observatory, Greenwich, the mean reading of the barometer last week was 30·02 in. The lowest was 29·61 in. at the beginning of the week, and the highest 30·20 in. on Saturday morning.

* The figures for the English and Scottish towns are the numbers enumerated in April, 1871, raised to the middle of 1874 by the addition of three years and a quarter's increase, calculated on the rate which prevailed between 1861 and 1871. The population of Dublin is taken as stationary at the number enumerated in April, 1871.

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ORIGINAL LECTURES.

A CLINICAL LECTURE ON SCIATICA AND ITS TREATMENT.

DELIVERED AT THE WESTMINSTER HOSPITAL.

By FRANCIS E. ANSTIE, M.D., F.R.C.P.,
Physician to the Westminster Hospital, and Lecturer on Medicine in Westminster Hospital School.

GENTLEMEN,—There is a man now in Burdett ward who is the subject of simple sciatica, and whose case affords me the opportunity of making some practical remarks on that disease and on its treatment. I am glad to be able to do this, not only because the complaint is very painful and troublesome, and may give you a great deal of anxiety when you have to deal with it in practice, but also because the statements respecting it which you will meet with in many books are erroneous and confusing. Before I say anything about sciatica in general, I will briefly relate the symptoms and course of our patient's illness.

M. G., aged forty-three, a baker, was admitted on April 23, suffering from sciatica in the left limb. It appears that this is his second attack; he had the same leg affected in January of last year, and suffered for about ten weeks. He describes himself as having been subject to "rheumatism" for many years, but on inquiry it appears that he never had any acute joint affection, and that the pains were vague and shifting in character. Otherwise his health has been uniformly good. In his first attack he had no medical advice, but merely nursed himself at home till the affection spontaneously subsided. His present attack commenced on March 9, and he at first hoped it would pass off, but as the pains went on increasing in frequency and severity he applied to the hospital.

He is a rather small and slightly-built man, and at present is decidedly thin—somewhat thinner than usual, it appears. He is pale and has rather a suffering look, but otherwise does not seem unhealthy. On admission he complained of more or less constant pain in the left thigh and knee, the back, and to a less extent in the outer side of the left leg. Besides the constant dull aching, he spoke of exacerbations in the form of shooting pains, which occurred at irregular intervals during the day, but were particularly severe at night. He specially pointed out two centres from which the acuter pains seemed to radiate—one behind the trochanter, and the other just below the head of the fibula. Pressure on these points gave pain, though the rest of the limb might be handled with impunity. He gave us to understand very clearly, besides, that there was always an aching soreness, which any movement of the limb aggravated, and described the situation in a manner which corresponded very plainly with the course of the sciatic nerve and its principal sensory branches. Careful examination of the leg and hip showed that there was no swelling nor redness anywhere; and, in searching carefully along those parts of the nerve where it lies comparatively superficially, no indication of swelling or thickening could be found. We might have expected such thickening, if at all, more especially at that focus of pain which he pointed out immediately below the head of the fibula, for here the peroneal branch of the sciatic nerve lies close beneath the examining finger; but nothing of the kind could be detected. This is in marked contrast to cases of disease which really involve material changes in the trunk or sheath of a nerve. The peroneal nerve becomes, for instance, a very palpable object when invaded by the inflammatory new formations which attend the anæsthetic form of true leprosy. Thus, a patient, whose case I related at the Clinical Society, had a peroneal nerve which felt to the finger as large as the ordinary rope for cording boxes; and in the cases which I shall have to describe to you presently as "true rheumatic sciatica," where there really is a rheumatic inflammation of the nerve-sheath, a smaller but still a very obvious thickening of the nerve is to be detected, provided that the part attacked lie superficially like the peroneal nerve.

The case, then, which we have before us, is one of true and uncomplicated neuralgia. It is pain distributed, not indifferently in the whole thickness of a limb or an organ and referred to several different structures, but strictly in the lines of a particular nerve and its branches; and it is not connected with any coarse or obvious physical change, such as occurs, for instance, in neuritis. It is a typical representative of the so-called neurotic group of diseases, as to which the conventional phrase is that they are "functional" and not "organic" in their nature. I shall not stay, now, to comment on the propriety of that distinction, because I have a more immediately practical object in view; but I must beg you to remember that the severest neuralgic pain may exist without the slightest detectable change in the anatomical condition of that part of the nerve to which the pain is referred. You might naturally suppose that at any rate these two points—at the hip and the outer side of the knee,—where our patient complained of the most intense pain, were the seat of some obvious morbid process; but it is not so. Valleix long ago proved that the points of greatest intensity in neuralgias are for the most part to be found simply where a nerve-branch passes through a fascia or out of a bony canal, or in any way turns out into a more superficial position; and it is simply this condition that determines the points of maximum intensity in our patient's sufferings, which correspond to two among the *lieux d'election* of sciatica which Valleix originally enumerated.

I should mention here that our patient is very positive that none of his relations have had gout, and none have had acute rheumatism, though one uncle was subject to chronic rheumatism.

We had to deal with our patient, then, simply on the view that he had a pain in one of his nerves, which pain was probably the result of a latent tendency (since this was the second attack) that had only needed some external accident—perhaps a chill, to which the occupation of bakers makes them very liable—to arouse it again. Before discussing the pathology of sciatica, and the possibility of building any rational treatment upon that pathology, let me just describe what we have actually done for our patient. So far this has been common-place enough, nor does it appear likely that we shall be driven to the use of any novel measures. Immediately on the patient's admission, he was blistered on a spot not far from the painful hip-point; and this gave great relief. Subcutaneous injections of one-sixth of a grain of morphia, at first twice, and afterwards once daily, have been administered, and he has taken five minims of liq. arsenicalis three times a day. At present the pain is greatly less severe and frequent than it was, and there is every prospect of a straightforward recovery. You may be inclined, perhaps, to question whether we have done anything more than palliate the immediate symptoms of a disorder which would very soon have come to a spontaneous end, for the man has now been ill very nearly as long as in his first attack, which got well without any medication; but I will just observe that it is always advisable not to neglect the use of means which may prevent the long continuance of a neuralgia, and that this duty becomes more pressing with each recurrence of the malady, especially when the patient has passed middle life.

I shall have to speak hereafter more broadly and generally of the treatment of sciatica, but before doing so it is necessary to take a review of the current doctrines as to its pathology. There are very few diseases which are more frequently misrepresented in treatises on medicine.

The principal source of error regarding the nature of sciatica is to be found in the inveterate tendency, especially among English physicians, to explain every disease by the light of a humoral pathology. No doubt the mania for "blood-poisons," "vitiated secretions," and the like, is only one degree more foolish than was the exclusive solidism which has reigned in other periods; but the former has proved itself especially injurious to the progress of rational nervous pathology and therapeutics. The universal hypothesis of depraved blood and secretions has had to be so violently strained to meet the case of nervous diseases, that it has done more than common mischief to the scientific intelligence of those who have forced it to this use.

The most popular theory in this country concerning sciatica refers the origin of that disease to the gouty diathesis. If you look into the medical text-books, you will find that the majority of them take it for granted that this connexion is at least very common; and from my own experience in consultation with other medical men, I know that this idea is very generally diffused. Indeed, practical evidence of the fact is abundantly furnished by the prescriptions for sciatic patients which are continually met with. In these it is quite the rule for colchicum to figure as a leading remedy, and for the remainder of the treatment to consist of the prolonged administration of alkalies, varied at times by the use of iodide of potassium. Now, the question whether this kind of treatment is appropriate or not is very important:

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for if the medicine does not cure it is likely to do a good deal of harm. Colchicum, especially when administered for any length of time, is a very depressing remedy; and the prolonged use of alkalies is scarcely less so. And, in fact, I have practically found that a large number of patients have suffered seriously in general health from this plan of treatment, without getting any relief from their sciatica. When I began practice I was as strongly impressed with the gouty theory of sciatica as anyone, but the results of treatment directed in that sense were so discouraging that it became necessary for me to reconsider the whole subject. More careful investigation of the personal and family history of patients suffering from sciatica, speedily convinced me that the gouty theory was at any rate only applicable on a very limited scale. From a very large number of records of cases of sciatica collected by me in hospital and private practice during the last sixteen years, I find that not more than one-fourth admitted even of a suspicion as to gouty origin; I mean, that not more than one-fourth of the patients had any knowledge of gouty symptoms, either in themselves or in any blood-relation. And even among those who had some personal or family history of gout, there were not a few as to whom it was difficult or impossible to suppose that the gout had any essential connexion with the neuralgia. When anyone asks you to accept a general statement that a particular local disease is usually or frequently dependent upon a particular diathesis of the body, I recommend you, before acquiescing in such a statement, to picture to your minds, as clearly as possible, the characteristics by which the diathesis can be identified. Now, it is tolerably easy to form such a picture of the gouty diathesis, or at any rate to fix on a certain minimum of evidence, without which we have no reasonable grounds for supposing that an individual possesses the gouty constitution. If a patient has himself repeatedly, or even once, had a genuine attack of gout, one must admit the probability that he is of the gouty diathesis; but we ought to inquire very strictly as to the character of the attack. No one ought to be said to have had gout unless he is known to have suffered, once or more, from hot and painful swelling of one or more of the smaller joints (far the most commonly the metatarso-phalangeal joint of the great toe), which attacked him suddenly *in the night*, and lasted from two to seven days; or unless, indeed, we can find the visible evidence of past gouty action in the presence of chalk-stones (lithate of soda) in his joints or in the cartilages of his ears. Where it is not alleged that the patient himself has had an attack of regular gout, but that he has shown the symptoms of latent gout, we must be very careful how we accept such a statement. The symptoms which may lead to a suspicion of latent gout are chiefly as follows:—The patient is liable to dyspepsia, with acid regurgitations; he not unfrequently gets slight attacks of giddiness without obvious cause; and, above all, his urine varies between light colour, with low specific gravity, and occasional discharge of large quantities of lithates and more or less uric acid in the form of crystalline sand. Such a group of symptoms may, no doubt, give *primâ facie* grounds for suspicion of the gouty diathesis, but they really amount to very little unless there is another item of evidence—viz., a history of gout in other members of the family. Gout is so exceedingly hereditary that we can usually find evidence of this kind; and there is reason for very great doubt as to the gouty character of symptoms like those which have just been described, when we are able to explore the history of one or two generations and yet do not find any record of the developed disease. Supposing, however, that we do get a history of what was called gout in other members of the patient's family, it is still our duty to inquire very carefully into the circumstances, for we are continually told by unprofessional people that "So-and-so had gout," when in fact he had rheumatism or even some form of joint affection altogether independent of constitutional disease.

By employing this strict manner of investigation, we reduce to a very humble level the pretensions of gout to be ranked as a cause of sciatica. Nevertheless, there is a grain of truth in the notion. The classes of society in which we find families that have hereditary gout are also those among whom nervous diseases are most frequently propagated from one generation to another; and thus it happens that a neurotic and a gouty race are not very unfrequently blended by marriage. A certain proportion of the descendants from such a marriage will possess a strong union of these constitutional peculiarities; and it is not to be for a moment denied that the gouty element does in such cases aggravate the tendency to nervous mischief, and especially to neuralgia. In such persons the things that bring on gout are apt to provoke neuralgia much more surely than they would in another kind of constitution. This is especially true of indiscretions in diet, and particularly of the use of beer or port wine. You will bear this fact in mind, then, although you will avoid the common error of looking at all cases of sciatica with a foregone prepossession to the gouty theory of their causation.

The question whether sciatica is related, and if so in what degree, to the rheumatic diathesis next presents itself for our consideration. It opens a very difficult inquiry; but the results we may obtain from that inquiry are exceedingly important in a practical point of view, since they must exercise a great influence on our plans of treatment.

(*To be continued.*)

ORIGINAL COMMUNICATIONS.

ON THE RECENT OUTBREAK OF CHOLERA IN MUNICH.

By MAX VON PETTENKOFER,
Professor of Hygiene in the University of Munich.

In the *Medical Times and Gazette* of April 25 appeared a leading article with the title of "Cholera in Munich," on which I am induced to make some observations. Last summer Munich was attacked by cholera for the third time since we have had the disease in Europe. The three epidemics occurred in the years 1836, 1854, and 1873, and were therefore separated by intervals of eighteen and nineteen years. At other times, when cholera epidemics raged very extensively—for example, in 1848-49 and 1865-66—Munich did not participate in the very slightest degree, and may be reckoned accordingly among those quarters which manifest, on the whole, less susceptibility to cholera, and are less frequently attacked, than many other of the larger cities in Europe.

Now, what distinguishes the last epidemic from both the previous ones is not its great severity, but a different course in respect of time—namely, a greater duration,—combined, nevertheless, with much less severity that formerly. In 1836 the epidemic lasted from the end of October till the middle of January; a few cases occurred after that date until towards the end of February; and it occasioned ten deaths per thousand among the population. In 1854 the epidemic appeared in the end of July, and lasted until December; a few cases continued to occur until March; and the deaths from cholera amounted to twenty-three per thousand of the population. On the present occasion the disease began in the end of July, reached its first maximum (as in 1854) in August, and steadily declined during September. In October only isolated cases occurred. From November 1 to the 14th, only two new cases were reported. As the colder season had in the meantime commenced, which is considered on the whole to be less favourable for cholera than the warm season, a hope was entertained that the danger was surmounted at least for the winter. But at that moment an unexpected increase of the epidemic suddenly took place, which as early as December 4 had reached a greater height than it had in August. The disease again declined considerably until the beginning of January, but during that month once more increased, although much less severely, and finally declined steadily in February. In March and April only very isolated and occasional cases occurred. After a week had elapsed without a single case, two additional cases occurred on April 27, and no more; and we have reason to hope that the cholera has again left the city for a considerable number of years.

There was one case among the isolated ones in April which attracted great attention, because it was that of a person of world-wide fame—Wilhelm von Kaulbach, the painter,—and ended fatally. But no legitimate conclusion can be come to, from the greatness of Kaulbach in art, on the severity of the cholera in Munich. Notwithstanding the unusual duration of the epidemic (July to April), Munich has suffered less by cholera this time than in 1836, when the loss reached 10 per thousand of the population, not to speak of 1854, when it reached 23 per thousand; the total loss during the whole ten months was this time scarcely 8 per thousand.

The time of occurrence of cholera in Munich and its local

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distribution have been interesting and instructive in the highest degree, and demand searching etiological study and investigation, the result of which I shall afterwards report to you. The epidemic of 1836 may be called a winter epidemic, and that of 1854 a summer epidemic. On this occasion Munich was visited by a summer and a winter epidemic in succession; and the two ran their course, separated from each other by a considerable interval of time. The summer epidemic spared this time in a very striking manner exactly the lowest-lying quarters of Munich, which were at other times the chief scenes of the disease. This remarkable circumstance confirmed me even then in the opinion that we had not seen the last of the epidemic in summer and autumn. However, when it had not reappeared so late as the beginning of November, I entertained the hope that we might rest during the winter until next summer or autumn; but we were destined to receive a very instructive lesson on the subject—that the temperature of the air is of less influence than other atmospheric and local conditions. The epidemic in December, which was much more severe than the one in August, supervened upon continued dryness, and especially attacked the lowest-lying parts of the city which remained so remarkably unaffected in summer. Since the cholera has now passed over the whole city, there is all the more reason to hope that the disease will not immediately return.

At the end of your editorial article you have advised medical men, as far as their influence goes, to dissuade persons from visiting Munich until "the ban" (*taboo*) has been removed from the city and its certificate of health has a better sound. The cholera-ban is in reality removed, and English physicians need not longer fear on this account for those entrusted to their care. The bill of health of Munich sounds, however, far more unfavourable from the views which are generally prevalent on the subject than is just; and I beg to make a few observations on this point. Munich presents a high general rate of mortality—even in ordinary years, free from epidemics, 33 to 36 per thousand of all lives; in the period of eight years, from 1863 to 1870, it amounted to not quite 36 per thousand. During the last years it has increased even further—in 1871 it was 41·0, in 1872, 41·7; yet these are not ordinary years, but extraordinary, as occur occasionally in the sanitary condition of every large city. A considerable part of the increased mortality of the year 1871 is to be regarded as a consequence of the war of 1870, which brought to Munich numbers of sick and wounded, as well as prisoners, who were treated here, and many of whom died. But irrespective of all accidental and varying circumstances, there is a high *general* rate of mortality in Munich, which is manifest even in ordinary years, and which is unfortunately a consequence of the extraordinarily high mortality among children under twelve months. This fact becomes evident when the rate of mortality is calculated for the population over one year old, and compared with the corresponding rate of other cities which enjoy a confessedly good sanitary condition—for example, London. From 1863 to 1870 there died in Munich, as already stated, 35·8 per thousand of all living; in London, in 1871, for example, only 24·6. But if the living and dead children under twelve months in both cities are equally excluded, an annual death-rate is obtained of persons over one year of 20·1 in Munich and 19·3 in London. There is thus no essential difference in the danger to life to persons over one year between Munich and London.

On the other hand, newly-born infants in Munich are exposed to a greater mortality. The causes of this are various—partly known, partly unknown,—and I shall not enter further into this subject. But I may mention one fact which the worthy director of our Government statistical bureau, Professor Mayr,(a) has put beyond all doubt by extensive and careful investigations—namely, that this great infant-mortality is not peculiar to Munich, but extends over the whole Swabio-Bavarian plateau, and even farther—into the regions drained by the Danube and Altmühl, and holds good there,—not only in cities and the larger places, but also in the country and in villages which are free from typhus abdominalis and cholera.

Besides this great mortality among children in the first year of life, a high birth-rate also is observed; and the two factors seem to a certain degree to have a reciprocal causal connexion. In Munich there were born, for 1000 living, in the years 1854 to 1862, 36·6; 1863 to 1870, 41·8; in 1871, 37·1; in 1872, 41·3; in 1873, 43·7. In these statistical figures—as is the universal custom—the cases of still-birth have been left out of the reckoning; while, on the other hand, all the cases of death in Munich, in its hospitals and charities, have been included without exception or reserve; while elsewhere here and there artificial calculations are undertaken to obtain a lower death-rate—for example, the subtraction of the cases of death of temporary residents, or of persons who come from other places for admission into hospitals, lying-in houses, and other institutions, to seek, so to speak, only a place to die in.

The communal administration at Munich is exerting itself earnestly to render the sanitary condition as good as possible, and spares no sacrifice for the health of the city. That this endeavour is not without result is demonstrable by statistics. The advance in the health of the city is most distinctly pronounced in the diminution of abdominal typhus (typhoid). We have a very reliable standard in Munich for the movement of this disease at different times. According to the investigations of Von Buhl, Seidel, and Port, the frequency has varied for the last eighteen years with great, I might say with unpleasant, regularity with the height of the ground-water, as far as this furnishes a measure of the varying increase and decrease of the dampness of the ground. As regards Munich, we are able with great certainty to infer a rise in typhus from a protracted downward movement of the ground-water, and *vice versâ*. It is now possible to distinguish in the movement of the ground-water not only annual fluctuations, but also greater periodical movements extending over years. In the last twenty years we had two such periods of the ground-water, to which two such periods of typhus abdominalis exactly correspond; and each embraces exactly eight years, on which account they are very suitable for comparison—the one reaching from 1852 to 1859, and the other from 1860 to 1867. Now, in these two periods the movement of the ground-water is so similar, that the frequency of typhus abdominalis in the two periods might be expected to be equally similar; but the fatal cases of typhus abdominalis amounted in the former period to 2·42 per thousand of the living, in the second or later epidemic only to 1·66 per thousand. There has, therefore, been a decline on the later occasion of nearly one-third. I ascribe this decline, with complete conviction, for most part to the sanitary improvements, which commenced after 1856, and began to work in the second period of typhus abdominalis. The next number of the *Deutsche Vierteljahresschrift für öffentliche Gesundheitspflege* will contain an exact demonstration by me of this subject.

This decline of typhus manifests itself not only in the population of Munich as a whole, but also in the individual parts of it. I investigated the condition of the soldiers, Professor von Lindwurm that of the students, during both the periods referred to. In both cases there was even a greater reduction in the second period than there was among the population in general. The number of cases of typhus abdominalis was in both classes about 45 per cent. fewer in the second period than in the first.

I have not mentioned this fact for the purpose of indicating that our authorities should now be satisfied with this result, but only to rouse them and spur them on to advance yet farther in the way on which they have entered; for even 1·66 of an average mortality from typhus abdominalis per thousand of the inhabitants is too high, and may be considerably diminished, as, indeed, has been shown in English towns. Our magistrates are at this moment very anxiously occupied in supplying certain deficiencies which still exist in the water-supply, sewerage, water-closets, etc., and to replace these by better arrangements; but even now Munich may be reckoned (leaving out of account the mortality of children in the first year of life, the cause of which is not a simply local one) not a more unhealthy city than are others which are visited by foreigners, and selected for a prolonged stay without the physicians cautioning them against them.

Munich has had up to this time three epidemics of cholera; Hamburg already fourteen. According to the latest statistical evidence the rate of mortality of Naples in the first three weeks of April has amounted to 48·9, 45·9, and 45·3, while it was lower in Munich, in spite of cholera. There is now once more a prospect for Munich of a good condition of health for a considerable time. Munich has survived a summer and a winter epidemic of cholera, while in all probability many other cities have very soon again to experience the disease; and for this reason also Munich ought now rather to be recommended as a place of resort than a caution given to the contrary.

Munich.

(a) *Zeitschrift des K. bayerischen statistischen Bureau, Jahrgang* 1870, No. 4.

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ON THE TREATMENT OF LEPROSY.

By GAVIN MILROY, M.D.,
Fellow of the Royal College of Physicians.

The very valuable communications by Dr. Van Someren on leprosy, in your issues of March 28 and of April 3 and 18, will be read by all who seek to add to their knowledge of this obscure and formidable disease. His large experience as medical officer of the asylum at Madras, and the continuous attention which he has evidently paid to the malady for many years, entitle his observations to the utmost confidence and respect. Among other points alluded to in his last paper, he mentions the results of the trials he has made of late years of the Beauperthuy mode of treatment in these words:—"I can speak most positively to the discussion of tubercles by (the application of) the oil of cashew-nut, but regret to say that there is a manifest disposition to their recurrence, most clearly proving that the treatment, however well calculated to improve the appearance of the patients temporarily, by removal of one of the manifestations of the malady, does not eradicate the leprous taint from the system. The oil, however, is now regarded as a very useful and essential article of the Pharmacopœia of this institution."

To the same effect has been the experience of the Physician of the Leper Asylum in Mauritius, Dr. Poupinel de Valencé, whose report "Sur le Traitement de Beauperthuy appliqué sur Six Lepreux" was lately communicated to me. Speaking of the cashew-nut oil he remarks:—"Si, entre nos mains, elle n'a pas réussi à detruire complétement les tubercules, elle nous a du moins revélé une action qui pourra être utilisée avantageusement par son application à certaines tumeurs." And after alluding to the tendency to the eventual recurrence of the tubercles, of perhaps a smaller size and prominence, after the action of the oil, he adds—"Mais elle a toujours produit un certain affaissement de la peau, là ou elle a été appliquée." Dr. de Valencé's opinion as to the internal administration of the corrosive sublimate is not encouraging—"Cette medication n'a rien produit sur nos malades, et son action trop prolongée aurait fini par leur être nuisible." He had tried it in his private practice also, but had been always obliged to give up its use, although these patients were in a condition of procuring for themselves good food and other hygienic comforts. Dr. de Valencé suspects that the instances of alleged cure of tubercular leprosy under the mercurial treatment were, in truth, cases not of that disease, but rather of tubercular syphilis, which is at times apt to be mistaken for it. In all the asylum patients, the Beauperthuy treatment was steadily continued for a period of not less than six months, so that ample time was given to ascertain its effects.

The above results, coinciding as they do so entirely with those obtained of late by different observers in the West Indies, leave little or no doubt as to the real value of a medication from which, at one time, no small advantage was expected by some medical men. But this comparative failure need not much disappoint us, as it is only akin to what has occurred in respect of many similar anticipations from the use of other medicinal remedies; nor should it at all discourage our hopes of great benefit—preventive as well as therapeutic—being obtained from the judicious treatment of this grievous distemper. What Dr. Van Someren wrote in 1861—several years, therefore, before the Report of the College of Physicians,—and which all his subsequent experience has tended to confirm, clearly points out the true line in which our efforts should be directed. "Good food, pure air, a rigid attention to cleanliness, and a certain amount of bodily exercise certainly contribute more than anything else to ameliorate the health of lepers; and if the materia medica be indented on, it should be for such medicines as are calculated to improve the quality of the blood. Chalybeates, the preparations of iron and iodine, and cod-liver oil promise the most benefit as internal remedies. . . . Looking to the abnormal condition of these patients, it is scarcely necessary to insist on the cautious and sparing employment of such an atonic and depressing drug as mercury, and one also which operates so powerfully in reducing the proportion of red corpuscles in the blood."(a)

The fundamental point in dealing with the treatment of leprosy, in regard to its prevention and to its arrest or cure, is unquestionably the subject of a wholesome nutritious diet, together with due attention to other hygienic conditions. As respects communities, the question in short is a great food question; and happily it is in this light that it has come to be regarded by our Government in its relation with the colonies where the disease prevails, as appears from the recent despatch of the late Colonial Secretary of State, addressed to the governors of those possessions.(b)

Dr. Someren, being quite convinced that leprosy is not communicable by contact with the sick ("all the records and experience of the Madras Leper Asylum run counter to" the supposition), recommends that the institution under his care should cease to be one for the reception of leprous cases only, but should be expanded and developed into an extensive hospital for skin diseases generally. For the same reason, and in the hope of dissipating the old and ingrained traditional belief in the contagiousness of the malady and the necessity for the isolation of its victims, as well as with the view of improving the hygiene, not only of lepers, but also of other suffering poor (among whom in tropical counties there are always many cases of intractable chronic disease), I have strongly urged, in my late report, the need of reform in the existing system of infirmaries and sick asylums in our West India colonies. It may take some time before the change is effected; but come it will, I feel confident. Its adoption will of course be much accelerated if there be unanimity of opinion among the resident medical men on the above cardinal point in respect of the natural history of leprosy. Let only those who have such opportunities of observation as Dr. Someren has, follow his example and communicate the results of their experiments to the profession, and the good work will ere long, we may feel sure, be brought to pass.

Richmond, S.W.

(a) *Madras Quarterly Journal*, October, 1861.

(b) *Vide British and Foreign Medico-Chirurgical Review*, January, 1874, p. 209.

A CASE OF ACUTE SPINAL DISEASE—MYELITIS OR HÆMORRHAGE (?).

By JOHN WOODMAN, F.R.C.S. (by exam.),
Consulting-Surgeon to the Exeter Dispensary.

The patient, A. A., aged 47, a travelling Jewish optician, left Exeter for Dartmouth, apparently quite well, on the morning of Monday, April 27, 1874. During the evening he was taken with a sudden weakness in the knees. This partially passed off, and he got to bed, sleeping very well, and waking in the morning, as he thought, all right. He dressed, but just as he was coming downstairs his knees gave way under him, and had he not laid hold of the bannisters he must have fallen down. He called out, and the landlord of the inn came and carried him downstairs. He then had some breakfast, and, feeling better, thought he could walk out into the town. He had hardly left the house when he felt the same sudden loss of power below the knees, and fell down in the street. He was now helped to the railway-station and came home. I found him on Tuesday evening, the 28th, seated in a chair, complaining of loss of power below the knees. I had him sent to bed, applied friction and warmth, and gave iodide of potassium internally.

The next morning (29th) I found he could with difficulty raise the knees in bed, but could move the toes easily. Sensation normal.

30th.—Only movement in the toes remains, and that very slightly. His urine passes freely, and the bowels have been freely opened.

May 1.—Cannot move his toes or legs; has difficulty in breaking wind, but passes his urine all right. Applied a blister over the spine.

2nd.—His arms are weak, he cannot lift them easily; sensation not at all affected.

3rd.—There is difficulty of speech; for the first time no urine has passed, it having to be drawn off with a catheter.

Dr. Drake, Consulting Physician to the Devon and Exeter Hospital, saw him with me. He feels everything as usual—passing catheter, etc. (he has a slight stricture); also when Dr. Drake tickled the soles of his feet, although there was no reflex action, he complained as if annoyed, saying, "What are you tickling me so for?" The paralysis of all motor power went on, so that he could not swallow, or even allow a piece of ice to be placed in his mouth, as the melting threatened to choke him. He was conscious up to the moment of his death, which took place at 2.30 a.m. on May 4.

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No post-mortem could be obtained. On inquiry I found that about six weeks before his death he got completely wet through, and had to remain some time in his wet clothes; and that, although he took precautions at the time, still he had complained of pains in the back since, though he thought they were not severe enough to see a doctor about.

The chief points of interest in this case are—first, the rapidity with which the paralysis crept upwards, whilst for the first few days there was no acceleration of the pulse and no pain; secondly, that whilst there was such complete paralysis of the anterior column of the spinal cord, the posterior or sensitive portion was not at all influenced, being neither increased nor diminished in its powers. Perhaps some of your readers can explain better than I can exactly what changes took place in the cord. I will only add that I recognised the extreme gravity of the case at the very commencement, and that there were no traces of syphilis.

2, Chichester-place, Exeter.

REPORTS OF HOSPITAL PRACTICE IN MEDICINE AND SURGERY.

CHARING-CROSS HOSPITAL.

CASE OF SARCOMATOUS TUMOURS OF THE BRAIN, SECONDARY TO MALIGNANT DISEASE OF THE KNEE-JOINT.

(Under the care of Dr. HEADLAND.)
[Communicated by Dr. BRUCE, Medical Registrar.]

W. K., AGED 19, was admitted as an in-patient of Charing-cross Hospital, under the care of Dr. Headland, on November 18, 1872, with the following history:—Previous to 1870 his health was perfect, early in which year he knocked his knee slightly. Shortly after a tumour began to form on the inner side of the joint. It was excessively painful and rapidly increased in size, necessitating amputation of the limb in the upper third of the thigh. The operation was performed in King's College Hospital on May 18, by Professor Wood. On July 9, the stump having nearly healed, he left the hospital. Previous to his admission he had worked as a printer; he now changed his occupation to that of a tailor, at which he worked for over two years. In July, 1872, he began to suffer from what he described as "violent colds in the head," running at the nose, and pain in the left side of the chest. For these complaints he was treated at King's College Hospital.

In August he first noticed dimness of sight of the right eye, and suffered from pain in both eyes, across the nose and forehead, and in the temples, but not general headache. Vertigo was added to his other symptoms, and on September 24 he was attacked with the first of a series of convulsions. On that day he was sitting on the bench just after dinner, when, on turning his head over the right shoulder, he found that "it would not come back." He then began "to shake all over" and had a severe convulsion. He did not lose consciousness during the fit; he was sick afterwards. In half an hour another convulsion followed, which was succeeded by others at intervals of half an hour, until he had had seven in all. He felt perfectly well after the attacks except that he was very sleepy. Exactly a week after the first attack he had a second series of six fits of the same character as the first. For the next fortnight his health seemed perfect, after which he had a third series of two fits only. He had no other fits until after his admission to Charing-cross Hospital on November 18. No medical advice was sought, but the patient's mother gave him assa-fœtida, which made him sick. He also stated that towards the end of October he found that he had a severe general headache on rising in the morning, and was sick after breakfast, lunch, and dinner. He vomited a quantity of "yellow stuff," and retched severely. The next day he felt as well as ever, but on the third day the symptoms of the first day were exactly repeated. Next day he was well again, and so on, sometimes being two days well, at others only one. During all this time his eyesight continued bad. He consulted a surgeon at one of the ophthalmic hospitals, who ordered him to buy glasses. He was not examined with the ophthalmoscope.

In general appearance the patient was anæmic and of delicate habit of body; slim; height five feet six inches and a half; head small, symmetrical, no tenderness; perfectly intelligent; memory seemed perfect, but if "unduly taxed, he feels warm, and becomes somewhat confused." No loss of sensation or of muscular power, or affection of the special senses, except of the eyes, as already mentioned. On examining him with the ophthalmoscope the papilla was found perfectly merged with the general red field, and swollen; the veins large and dark. Choroidal vessels very distinct for some distance from the papilla.

On admission the patient complained of sickness and headache, but he did not vomit for the first fourteen days. On the second day he had a single fit. When the vomiting supervened, he rejected every meal for one day; next day there was no sickness, but on the third day it recommenced; next day he was well, and so on for about three weeks. During this time, also, he had several fits. At first the fits were bilateral, but after a time they were unilateral, the convulsions being confined to the left side. He did not lose consciousness during the fits. At their approach he was very anxious and alarmed, and during the fit he screamed out "Oh! hold my hands," and so on.

The following were the phenomena of a fit, as observed after his admission:—Before the fit comes on, "twitchings" of the limbs (to which he is very subject) become more frequent. There is then loss of power in the limbs about to be convulsed. The "twitchings" become more and more severe, and the head shakes, the fingers are flexed inwards, the leg pushed up and down, and the convulsion becomes complete. As seen on one occasion, the fit was a truly clonic one, confined to the left side of the body. The patient cried out a fit was coming on, and desired to have his hands grasped. He appeared greatly excited, and his face was flushed. The fingers of the left hand opened and shut rapidly, the left limbs were jerked about, the face was contorted on the left side, and, the muscles of the left side of the neck being convulsed, the head and face were drawn by a series of rapid clonic spasms downwards towards the left shoulder, and rotated at the same time towards the back. Patient, as usual, retained consciousness during the fit, which only lasted about two minutes. There was no consequent soporosity, and no headache.

The intermittent character of the attacks of headache and vomiting will be seen from the following extract from Dr. Bruce's notes:—"December 22nd, severe headache and vomiting; 23rd, perfectly free from sickness and headache; 24th, sickness and headache very severe; 25th, to-day (Christmas-day) patient is sitting up and enjoying his dinner—no sickness or headache; 26th, intense headache and sickness; 27th, feels perfectly well—is eating his dinner heartily."

From the headache, vomiting, the character of the fits, and the presence of double optic neuritis, cerebral tumour was diagnosed, and, from the history of the case, its malignant nature.

For the next two or three weeks the patient continued in about the same condition, except that he became gradually weaker. On January 21 the following notes were taken:—"Patient's condition aggravated; most severe vomiting and headache; mind less bright, and temper somewhat obstinate. Left arm and leg paralysed, tongue protruded straight; the left side of the face appears to move less than the right. No fresh attacks of fits and no rigidity. Urine and fæces incontinent. Pulse 56, regular."

"24th.—Dull as on last note; his answers are untrustworthy, but he says he has less headache and can see quite well; left arm quite helpless by his side; no loss of sensation in it. The sister says that his left leg is frequently drawn up voluntarily; patient, however, says it is helpless, and it falls in a heap when raised and let go. Sensation of leg normal; tickling and pricking cause considerable reflex movements. Pulse 76."

"28th.—Perfectly dull; lies with his eyes slightly open, and the exposed cornea is covered with a thin film. Replies to questions in a low yet intelligent manner; shivers occasionally, but has had no return of the fits."

After this date the patient became gradually weaker, and he died on February 2.

At the autopsy, either cerebral hemisphere was found to be the seat of secondary malignant deposit of sarcomatous nature, forming two well-defined tumours on the right side and one on the left. A sarcomatous tumour was found in either lung, that on the right side being as large as a child's fist; the other was much smaller. The other viscera were tolerably healthy.

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BELFORD HOSPITAL, FORT WILLIAM, N.B.

CASE OF IDIOPATHIC ERYSIPELAS OF THE FACE.

(Under the care of Dr. JAMES W. ALLAN.)

On October 7, 1873, I was requested to visit, as an out-patient, D. C., residing in the Low-street. The invalid, a young man, was suffering from erysipelas of the face, the left side being affected. The left eye was closed, and the left ear looked as if it had been affected with eczema. There was strong evidence of constitutional disturbance. The attack was of a week's duration, but about a month previously patient seemed to have had premonitory symptoms in the form of vertigo, and a feeling as if he would tumble backwards. He paid no attention to his illness at the beginning; he thought nothing of it.

Ordered nourishment (milk, eggs, etc.) and some stimulant. Tinct. mur. ferri in gtt. v. doses every two hours; salicin morning and evening; attention to bowels, etc.

On the 9th he was reported improved. Medicine stopped; a dose of castor oil administered.

Visiting him on the 10th, I found him in a very asthenic condition. The right cheek was now becoming affected; forehead was still under the influence of the disease, which, however, did not seem to have passed the roots of the hair.

On the 11th the right eye was closed and the right side of the forehead was most affected.

This man afterwards came into the hospital, but, on being informed that he must go into a back ward by himself, he left the house in great indignation.

Remarks.—Trousseau ("Clinical Medicine") asserts that almost all, if not all, cases of "medical erysipelas" of the face originate in some lesion—as, for example, a pimple or eczema of the ear. In this case I failed to detect any such starting-point, and the patient and his wife both stoutly denied that there was anything the matter with the skin before the disease appeared. The eczematous appearance of the ear to which I have referred was observed after the erysipelas had traversed that region. It was emphatically denied that there was anything wrong with the ear before. When the right side of the face was beginning to be affected, the patient pointed out to me a hard gland at the angle of the right jaw. He said that was the way in which the attack commenced on the left side. Of course, it is quite possible that there may have been a breach of surface in the skin, although none was detected.

LEGAL INTELLIGENCE.

CLARIDGE *v.* RUMBOLL.

This action was tried in July last year before Mr. Justice Honyman and a common jury, and was at the time reported and commented on in this paper. It was brought by the plaintiff against the defendant, a surgeon practising at Shepherdess-walk, Hoxton, to recover damages for the loss of his wife, who, it was alleged, died in her confinement owing to the negligence of an assistant of the defendant named Westacott, who attended her. It was proved at the trial that the defendant was carrying on business at other places with unqualified assistants for managers, and the negligence was not disputed. Ultimately the jury found a verdict for the plaintiff for £100. On Friday last, May 22, Mr. Grantham, M.P., with whom was Mr. R. G. Glenn, moved the Court (Lord Coleridge, and Brett and Grove, J.J.), to make absolute a rule *nisi* which had been obtained for a new trial, on the ground that the verdict was against the weight of evidence. It was argued that the evidence on the trial proved that there was no retainer of the defendant; that Mr. Westacott, who actually attended the plaintiff's wife, was not at the time the defendant's assistant, and that the plaintiff knew this and voluntarily engaged him because he found it would come cheaper than going to the defendant; that the defendant had no control over the case, and never heard of it till long after the death; that the admission of negligence simply meant that the defendant had no means of proving or disproving negligence, inasmuch as he had never seen the patient; and that the jury were unduly prejudiced against the defendant by such admission, and by the fact that he had allowed unlicensed persons to practise under the shadow of his name and qualification. Mr. Huddleston, Q.C., and Mr. R. Vaughan Williams showed cause against the rule; and after a long argument the Court held that there was *some* evidence of a retainer to go to the jury, and that therefore they would not disturb the verdict.

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THE MEDICAL TIMES AND GAZETTE *is published on Friday morning, Advertisements must therefore be sent to the Publishing Office not later than One o'clock on Thursday.*

Medical Times and Gazette.

SATURDAY, MAY 30, 1874.

THE MEDICAL SOCIETIES IN SESSION.

We have certainly not been much tried during this year as yet by the heat of the weather. The spring quarter has not, indeed, been so severe as it sometimes is, but it has been marked rather by the absence of very cold than by the presence of warm weather; and whatever degree of warmth we have been favoured with has been largely tempered by easterly and northerly winds. During the last few days, however, the weather has been warm enough to make even the most hard-working and enthusiastic of meeting-attendants glad that the Medical Society Session has this week come to an end. The rooms of our societies are not, to put it mildly, famous for excellence of ventilation, and, as soon as the weather becomes at all hot, attendance at the evening meetings requires much courage and power of endurance, and the weariness and oppression of the body tries the willingness of the spirit rather severely.

But though we for these reasons congratulate ourselves that the medical societies will not meet again till chill October, we may also and very heartily congratulate them on the successes of the session that has just terminated. The meetings of the Medical Society of London—the mother society—have been well attended, and the papers and discussions good, and the admirable Lettsomian Lectures by Dr. Broadbent were of themselves enough to make the session a notable one. At the Royal Medical and Chirurgical Society the most noteworthy incidents have perhaps been the valuable and original paper by Mr. F. A. Mahomed, "On the Etiology of Bright's Disease and the Pre-albuminuric Stage," and Dr. J. Mackay Cunningham's paper "On Recent Experience of Cholera in India," and the discussion to which it gave rise. At the Epidemiological Society also there were animated and interesting discussions on cholera, on the value of quarantine in relation to epidemic cholera, and on an able paper by Inspector-General Lawson, "On Errors in the Usual Method of Investigating Epidemics."

And the Hunterian, the Harveian, and other societies have done good work; but the honours of the session have been carried off by two of the younger societies—the Clinical and the Pathological. At the former Society the address by the President "On Pyæmia in Private Practice" excited a discussion which was most ably carried on during four crowded meetings; and at the Pathological the debate on Mr. Campbell De Morgan's admirable address "On Cancer" called forth a remarkable array of talent on both sides of the question raised, and lasted also through four meetings of the Society. On the third evening the discussion seemed indeed rather to have lost its interest, but it was resumed with renewed vigour and activity on the fourth night.

The subjects discussed at these societies are both of immense importance, and the addresses and the debates on them were highly instructive; but we have commented on them so fully already, during and since the discussion, that we may well be content to say very little more. At the Clinical Society the facts most fully and clearly proved by the President's address, and by the discussion on it, were—that pyæmia does occur in private practice, and that, as we have elsewhere observed, "though the scourge of wards and hospitals that are impure, ill-ventilated, or overcrowded, pyæmia may be kept away from well-cared-for wards and well-attended patients." The precautions necessary for the avoidance of the disease, and the power of prophylaxis, were well and ably set forth and illustrated; and if, in consequence, these are generally recognised and carefully put in practice, the discussion will have resulted in very great and lasting benefit.

The discussion at the Pathological Society was perhaps more remarkable for the ability and talent shown by the speakers than that at the sister society; and certainly those who had the good fortune to hear Sir James Paget will not soon forget the impression made by his remarkably eloquent and skilful address. He and the President (Sir William Jenner) showed themselves indeed most formidable advocates of what we will still venture to call the "constitutional" theory of the origin of cancer, and did not want able supporters; while the opposed theory, that of the "localists," was admirably sustained by such able and practised speakers as Mr. Campbell De Morgan, Mr. Hutchinson, Dr. Moxon, Mr. Arnott, Sir William Gull, and others. Sir William Jenner, when congratulating the Society at the close of the debate on the excellence of the speeches, remarked that three of them—those of Mr. De Morgan, Sir James Paget, and Mr. Simon—"were addresses such as any society in Europe might have been proud to listen to"; and general opinion, while in accord with him, will add his own speech to the number. But the whole debate was most instructive and interesting, and will not, we hope, be shelved away with the journals of the year. Many of the speeches will well repay repeated careful perusal, and will afford most valuable guidance and help in the future study and observation of cancer. And we will here mention one of the wants brought out in the course of the debate—our want of more accurate and large knowledge as to the hereditariness of cancer. Sir James Paget has become convinced by lengthening and widening experience, and by the more precise histories of patients obtainable in private practice, that cancer is hereditary in at least one case out of three. Sir William Jenner agrees with him more or less closely; while we have other able observers and students of disease almost doubting if cancer is hereditary at all. Here, then, is a point of enormous importance—the degree of hereditariness of cancer,—concerning which our knowledge is still uncertain and incomplete. Inquiries on this point need to be more minute, deep, and searching than they have been hitherto, and we need much larger help from the experience and knowledge of private practice.

In conclusion, we will express the hope that our societies will continue to devote each year some evenings to debates of the character of those we have above noticed. We have no fear that in England they will ever degenerate into profitless rivulets of vague talk, while we are sure that they may be productive of very great good. They serve to bring into strong light the weak points and the yet unfilled spaces in our knowledge of diseases, to call forth the hoarded stores of experience and knowledge gained in private practice, and to point the difference between clearly ascertained and proved facts, and mere impressions; and they will teach men the vast importance, and, indeed, the necessity, of clear and settled definitions of the things spoken of, and will help to train them in the invaluable art of speaking to the point, instead of continually and vaguely widening the area of discussion.

THE APPREHENDED SCARCITY OF WATER IN ENGLAND.

The rains which have recently fallen will have conferred a benefit of no ordinary description both upon town and country. The long drought had begun to make itself felt generally: in various parts of London, indeed, the sanitary authorities had found it necessary to flush the sewers by carrying water in the water-carts and running it down in a body at various points; and the thunder-storm of Monday last, with its heavy rain, will have done much to check disease when the hot weather, which may shortly be expected, really sets in.

Fears of a water-famine in various parts of England during the ensuing summer and autumn are not without grave foundation. Thus we hear that at Leeds, where the water-works are managed by the corporation, strict economy has been enjoined in the use of the supply, the authorities having even given orders for suspending the watering of the streets for the present. New reservoirs are in course of construction there, but it will be nearly two years before they are ready for use. At Wolverhampton the deficiency has also made itself felt; while at Widnes the Local Board of Health have found their supply inadequate to the wants of the district through the failure of their well, and this is attributed to the drying up of shallower wells. It has even been proposed to stop the supply of water to the chemical works in the neighbourhood, and to limit the distribution to domestic wants only. The Swansea Town Council are reported to have taken alarm at the great waste of water, and to be contemplating measures for restricting the supply. At Hull the authorities lately issued a notice that the supply of water for a few days at least would only be partial, and the supply was reduced from 5,000,000 gallons to 3,000,000 gallons daily, occasioning much inconvenience and considerable loss; but this latter deprivation was the result of accident through the breaking of one of the pumps at the waterworks. Temporary pumps, however, have been sent for to assist at the springs whilst the defective engine is being repaired.

It will be in the recollection of many of our readers that two years ago there was a great dearth of water in the Bermondsey district, owing to the choking of the Southwark and Vauxhall filter-beds. Major Bolton, in his monthly report to the Local Government Board, insists upon the necessity of all the London companies providing themselves with reservoirs sufficiently large to take in an ample store of water when the river is in its purest state. During the early part of April the Thames was in a state of flood, although the rainfall for the entire month was only half an inch; the river in its flooded state was turbid, and Major Bolton states that the utmost vigilance on the part of the Thames companies was necessary to prevent the choking up of their filter-beds after taking in flood-water. The West Middlesex Company, possessing large reservoir capacity, are not compelled to take in water during floods. The Lambeth Company are at the present time constructing large

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subsiding reservoirs at Moulsey; and it is added that the formation of large subsiding reservoirs by the Chelsea, the Grand Junction, and the Southwark and Vauxhall Companies is most desirable. The extension of the constant supply is a most important feature, and we learn with much satisfaction that it is now afforded to 53,000 out of a total of 510,000 houses. The great drawback is of course waste on the part of careless and thoughtless persons; but a strict supervision on the part of the different companies should be sufficient to check this evil, without depriving the many of a boon which may be abused by the improvident few. The entire population supplied by the London water companies exceeds that of the Registrar-General's London District, and amounts to 3,638,000. The amount of water furnished for this immense number during the month of April last showed a daily average of 112,130,000 gallons. For most of the facts which we have thus briefly summarised we are indebted to a very able article in the *Standard* of last week. We trust that a moderate rainfall, which may now be fairly anticipated, will obviate the apprehensions which have arisen as to a scarcity of water during the approaching summer months; but, taking into consideration the importance of an ample supply of this great necessity, it would be well if the present Government (who are said to be in favour of sanitary legislation) were at some time to consider the requirements of this great metropolis, more especially as regards the question of a constant supply to every house.

THE CHOLERA ABROAD.

We publish in another column an exceedingly interesting communication from that distinguished sanitarian and physician, Dr. Max von Pettenkofer, relating to the recent epidemic of cholera in Munich. Some time ago we felt it to be our duty to warn travellers of the epidemic of cholera in Munich—a warning which was before long justified by the death of the celebrated painter Kaulbach, who perished suddenly by that fell distemper. But we also felt it our duty to give equal publicity to the fact that cholera had disappeared from Munich some weeks ago. It would seem from Dr. Pettenkofer's statement that Munich has, in reality, gone through two epidemics—a summer and a winter one. It is only too well known that all last summer cholera raged in Germany, both north and south, in the east and in the west; that it penetrated into Holland, and naturally, considering the relations of sewage to drinking-water there, committed considerable ravages. In most parts, however, the malady disappeared with the advance of winter; but in Munich it seems, on the other hand, to have broken out afresh, and in a different part of the city—the summer epidemic mainly affecting the upper districts, the winter the more low-lying parts. This Dr. Pettenkofer connects with his own peculiar theories of ground-water—theories which we shall not now discuss, but which, at all events, are worthy of due consideration. But it is not the outbreak of cholera in Munich which alone concerns us here in England. It is of course a great thing to be able to say that strangers need no longer be deterred from visiting that great art-capital by fear of cholera. What more nearly concerns us is the chances of the disease spreading to England during the coming hot season. The intercourse between England and the Continent is now so close that it is hardly possible to keep out the malady save by the most stringent regulations—regulations, in fact, so stringent as hardly to be carried out. Nor does the risk to us arise from the direct traffic only: if possible, greater risks arise from what might be called the indirect traffic. To take two instances:—Shoals of emigrants are now leaving Germany for America by various routes. One of the favourite lines is the North German Lloyd steamers sailing from Bremen, but conveying passengers from all parts. These steamers all touch at Southampton, and if they come into dock the passengers generally make their way on shore, and may readily be the means of propagating the disorder. Another passenger route is from Hamburg or other port to Hull, thence across England to Liverpool, where the emigrants take ship again for America. The dangers arising from this route have been already demonstrated. Year by year the cholera seems creeping farther west, and shows a greater and greater tendency to naturalisation among western nations. It behoves us, therefore, to take timely warning, and to take timely measures against the danger of its invading this country.

THE WEEK.

TOPICS OF THE DAY.

Small-pox, which appeared to have been nearly stamped out, is again cropping up in some districts, occasionally in startling proportions. It has reappeared in Aberdeen, and is spreading with rapidity. It has broken out at Saltaire and Shipley, about twenty cases having occurred in the district; and it has become so alarming in Birmingham that Dr. Buchanan is about to make an official inquiry into the causes of the epidemic in that town. On the contrary, it is satisfactory to learn that no death from this disease had occurred in the Poplar district during the last fortnight, nor had any new case been reported.

Dr. Lankester drew the attention of the jury, at an inquest on Saturday, to a fact which should be generally known. The question of dwellings for the poor is now before Parliament, and, if its difficulties are to be adequately met, it is the dwellings of the vast mass of the very poor of the working classes that first and in the most pressing manner demand improvement and legislative help. Dr. Lankester said the model lodging-houses which have been and are being built do not touch persons earning a pound or less per week. In the instance before us, the father of the deceased child, a carman, earned a guinea a week, and lived with his wife and five children in one room, with a less space than 700 cubic feet. The child had died from suffocation for want of fresh air in bed. It is to be hoped that some comprehensive scheme may be carried out which will meet the difficulty to which Dr. Lankester refers. Up to the present time no sufficient provision has been made for the relief of that very large class of the lower orders who are suffering from preventable disease in consequence of the wretched habitations in which they are located.

With a view to the hospitals being ultimately managed by the Hospital Corps instead of by regimental non-commissioned officers as hospital-sergeants and privates, etc., as orderlies, detachments of the Army Hospital Corps have been sent from Netley to Warley, Colchester, Ipswich, Norwich, and Great Yarmouth, for duty in the hospitals at the several stations.

The following is an example worthy of the imitation of other large employers of women-labour. M. Dollfus, of Mulhouse, has adopted a system of paying each of his women operatives for six weeks after confinement, on the condition that the mother should remain at home to nurse her child. The effect of this considerate and generous act has soon shown itself. The ordinary mortality of infants in Mulhouse amounted to 35 and 36 per cent. in the first year after birth, whereas it has fallen to 24 per cent. among the women employed by the firm —averaging 1150 in number. Such a regulation as that adopted by M. Dollfus, if carried out in the same philanthropic spirit by all large employers, would do more to improve the health and well-being of their workpeople than Acts of Parliament, vestries, or guardians. It strikes at the very root of the evil; and it has to recommend it the fact that it can be carried out at comparatively small expense. We understand that the cost incurred by M. Dollfus in his truly humane effort to benefit

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the women (and, of course, their families) connected with his establishment amounts to the moderate annual sum of about £350. But is not this, after all, the truest economy for employers, both with regard to human suffering, and to the independence and value of their servants, and also to themselves?

The Government Factories Bill "to make better provision for improving the health of women, young persons, and children employed in manufactures, and the education of such children, and otherwise to amend the Factory Acts," has been printed. The hours of employment of "a child, young person, or woman" in a factory are to be between 6 a.m. and 6 p.m., or between 7 a.m. and 7 p.m.; but no such person is to be employed continuously for more than four hours and a half without an interval of at least half an hour for a meal, and two hours are to be allowed for meals every day, one hour at least of such time to be before 3 p.m. This latter provision does not apply to Saturday, when work is to cease at 1 p.m. or 2 p.m., according to the hour of commencing work. There are regulations as to children being employed in morning or afternoon sets or for the whole day on alternate days. The hours of meals are to be simultaneous, and employment during meal-times or remaining in workrooms during such time is forbidden. There are saving clauses as to the recovery of lost time, as to youths in lace factories, and as to the application to print and bleaching and dyeing works of the permanent modifications contained in the schedules to the Factory Acts Extension Act, 1867, and the Factory and Workshop Act, 1870. The age at which a person is deemed to be a child is to be extended from thirteen to fourteen years, unless an educational certificate be obtained. A child is not to be employed in 1875 if under nine years of age, and after that year if he is under ten. The Home Secretary has shown a wise discretion in introducing into Parliament a Bill for the relief of what are called "factory" children. Whatever may be said of the present Government, without reference to political bias for party purposes, it cannot be denied that they have shown a commendable desire to improve the condition of those who live by the "sweat of the brow."

Dr. Taaffe, the Medical Officer of Health of Brighton, has just issued his annual report of the sanitary condition of this important town. He appears to have been very active in the performance of his duties, and has effected some important reforms. There are others, however, which he mentions, and speaks plainly as to the actual necessity of their being carried out. As in all great towns, so also, and especially, in Brighton, with—

"Its streets of palaces and walks of state,"

to the superficial observer all appears *couleur de rose*; but to the investigator of other parts of the town there is another and a sad aspect of the picture. The mortality of Brighton is higher than it should be, and this is to a considerable extent the result of preventable causes. Supported as Dr. Taaffe is by the authorities and local press, we feel certain that he will succeed in placing Brighton very high on the list of health-resorts.

STATISTICS OF DEATHS BY SUICIDE AMONG HER MAJESTY'S BRITISH TROOPS.

From a paper read before the Statistical Society on the 19th instant, by a member of the Statistical Sub-division of the Army Medical Department, it appears that the returns of mortality among the non-commissioned officers and men of her Majesty's British troops, furnished to the Army Medical Department during the ten years from 1862 to 1871 inclusive, show that 663 deaths were reported under the head of suicide. As the average annual strength of white troops serving at home and abroad during the same period was 174,700, the deaths by suicide were in the annual ratio of 0·379 per 1000 of the strength. The Registrar-General's returns for the ten years 1861-70 show that in the male population of England between the ages of twenty and forty-five, the deaths from the same cause were in the annual ratio of 0·107 per 1000, or less than one-third of the rate prevailing in the army.

The statistical returns of the French army serving at home and abroad during the eight years 1862-69 show the ratio of deaths by suicide to have been 0·49, while in that portion of the force serving in France alone it was 0·47 per 1000 of the strength. In the Belgian army, on the average of the two years 1868-69, the deaths were from this cause 0·45 per 1000; in the Prussian army in 1867 they were 0·64; while in the Austro-Hungarian army in 1869 they amounted to 0·85 per 1000 of the strength.

Tables were also given showing that suicide was considerably more prevalent among troops serving in India than among the other portions of the force, while there was only a small fractional difference in the ratio among those serving at home and in the colonies. The ratio in India was four times, while in the other parts of the force it was three times as great as that among the males of similar ages at home.

The highest ratio was reached in the year 1869, when it was 0·569, and the lowest recorded was in 1865, when it was only 0·269 per 1000. With the exception of the years 1864 and 1865 there appears to have been a steady progressive increase up to the year 1869. A decrease of more than one-third took place in 1870 and 1871, probably from the circumstance of the Horse Guards having issued an order in September, 1869, directing that for the future service ammunition was to be removed from the men's pouches and stored in the regimental magazines; and this inference is borne out from the fact that the 663 suicides recorded during the period taken were given as from the following causes:—Gunshot wounds 362, cut throat and other wounds 107, drowning 55, hanging 53, poison 47, fracture, contusions, etc., 28, and from causes not stated 11. More than half the deaths, therefore, were the result of gunshot wounds, while one-sixth were caused by wounds inflicted by cutting weapons—cut throat in almost every case.

It was further shown that the tendency to commit suicide had borne the same rate of increase with advancing age as the mortality did amongst the troops at home—it was rather higher among troops in the colonies at the maturer ages, while in India it was more than doubled at each quinquennial period. The returns of the Registrar-General only show the deaths by ages in periods of ten years; but, so far as the comparison is possible, the ratio of increase with advancing age among the troops at home appears to coincide almost exactly with that of the civil population.

The last tables given showed how the deaths by suicide were distributed among the different arms of the service at home. Thus, the ratio per 1000 among the household cavalry was 0·164; among cavalry of the line, 0·498; artillery, 0·343; engineers, 0·178; foot guards, 0·209; infantry of the line, 0·309; departmental corps, 0·864,—which proves that suicide was considerably more prevalent in the cavalry of the line than in any other arm (with the exception of the departmental corps), and lowest in the household cavalry, in which it was only half the rate among the troops generally. The high ratio amongst the departmental corps is sought to be explained from the fact that the Army Hospital Corps is included amongst them, in which the deaths from suicide were very large, consequent upon the free access to poisons which their duties give them, more than half the deaths among them being referred to this head.

THE HOSPITAL-SHIP "VICTOR EMMANUEL."

The hospital-ship *Victor Emmanuel* is no longer a vessel set aside for the special treatment of the sick. She is at the present moment in dock at Portsmouth undergoing repairs,

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and being cleared of all the elaborate fittings which made her such a comfortable receptacle for the invalids sent down from the front during the Ashantee war. She is to be re-commissioned by her old captain, and is ordered to Hong-Kong to do duty as a receiving-ship in the place of the *Princess Charlotte*, now stationed there. Some surprise has been felt that, after the unanimous award of praise which was bestowed upon the *Victor Emmanuel* as a hospital-ship, she should have been so suddenly dismantled, and converted again into a vessel of war; but we believe that the expense of maintaining her in the former capacity was found to be so great that it was not deemed advisable to retain her in commission as a hospital-ship any longer, and it was this reason which prevented her being employed in Southampton Water, to relieve the pressure put upon the Royal Victoria Hospital at Netley by the recent large arrival of invalids from India.

The screw transport *Thames*—one of the largest vessels taken up by the Government during the Ashantee expedition—has returned to Woolwich, and is unloading stores from Cape Coast Castle; and the *Gertrude*—one of the first steamers sent out to the West Coast of Africa—is expected in the river in the course of the week.

THE VICTORIA HOSPITAL FOR SICK CHILDREN.

The fourth festival dinner of this Hospital was held at Willis's Rooms on Wednesday, May 20, the Archbishop of York presiding. In proposing the toast of the evening—"Prosperity to the Victoria Hospital for Sick Children"—the Archbishop alluded in very graceful terms to the enforced absence of Lord Cadogan, the chairman of the Committee, in consequence of an alarming outbreak of typhoid fever in Lord Elcho's town house, where he and his family were residing for the season, as Chelsea House is under repair. He was glad to be able to inform the company that the noble Earl was progressing favourably, as also, he believed, the other members of the family. His Grace took the opportunity of commenting upon this sudden outbreak of fever in a nobleman's house, contrasting it with a similar outbreak in a house containing separate families in every room, and all deprived of the means possessed by the rich for rendering the outbreak as innocuous as possible. To contemplate such misery for a single moment is most painful. But we must not rest merely in the contemplation, we must put our shoulders to the wheel, and endeavour to make this suffering less. He was quite sure of a ready echo in the breasts of the ladies when appealing for the suffering little ones. When all are struggling together, the weakest must go to the wall. The parents take good care of themselves, but their poor children suffer very great hardships and privation. The able-bodied poor are working hard all day, and they say, "What can we do with a poor sick child?" It is absolutely impossible for them to attend to its wants. A sick children's hospital is not an institution which may or may not exist according to the caprice of the charitable public: it is an absolute necessity. The Victoria Hospital was opened in 1866, at Gough House, Chelsea. The Board of Works threatened to pull the house down to improve the Embankment, but the Hospital Board have now purchased the freehold for £2000. The medical staff have expressed a wish to have a new ward opened for elder girls. This would burden the funds by about £400 annually, and it was hoped this much-needed additional accommodation would be speedily provided. He was much pleased to find when he visited the hospital that the little patients were so happy and comfortable. One little patient, eighteen months old, had been run over and both arms broken: he held them up to show that they were now quite well. At the head of some of the cots his Grace observed a tablet, one being entitled the "Reggie Cot," and another the "Clover Cot." He learned that the well-to-do parents of deceased children, convinced that many poor parents were unable to pay for professional advice and skilful treatment, had by the payment of £300 secured for all time a bed for any poor child in whom they were interested. He admired such disinterested charity. Instead of spending their money upon a costly marble monument, which could benefit nobody but the sculptor, they had secured a more useful memorial of their deceased child—a sickly flower transplanted to a genial soil to be restored to health, and then to make way for others. A tenanted cot may not be quite so elegant as a broken column or a marble sarcophagus, but who would compare a health-imparting, peace-giving memorial to a chiselled block of marble? Archbishop Manning, General Sir Wm. Codrington, and Mr. Gordon, M.P., ably advocated the claims of the Victoria Hospital to continued support. Some interesting relics from Ashantee were exhibited in the reception-room, among them King Coffee's silver casket, some flint muskets, a number of original sketches of the campaign, and a large oil painting about ten feet square of a bush fight, with Sir Garnet Wolseley in the foreground.

THE HOMERTON SMALL-POX HOSPITAL.

There are one or two matters of general interest in Dr. Gayton's last report of this hospital which are worthy of being disinterred from the heap of statistical returns and accounts in which they are buried. For example, Dr. Gayton says that his own experience and that of others as to the protective effect of vaccinia against small-pox has hitherto been that if the vaccinia reached the eighth day before small-pox showed itself, the latter was either greatly modified or altogether prevented. The following case, however, seems to be an exception:—

"A creole was admitted (at Homerton), on August 4, 1873, as a supposed case of small-pox; the rash was of that quasi-character which would have scarcely justified its refusal, not only on account of its doubtful appearance, but from the fact that the man had been brought from aboard ship, had been conveyed by the ordinary small-pox ambulance, and also for the immense responsibility that attaches itself in setting free a case which might turn out to be one of true variola. The man was vaccinated in four places, immediately upon his reception, with lymph obtained from the Privy Council Office. On the eighth day the vesicles were everything to be desired, having a well-marked areola with considerable swelling of the surrounding tissue. From this time until the 15th the man enjoyed good health, and some difficulty was experienced in retaining him in the hospital, as he was most anxious to rejoin his ship. At this time, however, he complained of backache and sickness, and took to his bed; three days afterwards he was suffering from confluent small-pox, from which at one time he appeared likely to succumb; afterwards he had slight ulceration of the right cornea. The lesson to be derived from this case is obvious—viz., that although vaccination is in advance of small-pox by five or six days, the protection of the individual cannot always be considered as absolutely certain; but nevertheless, recognising the period of incubation of small-pox to be fourteen days, the advantage of vaccinating during the first four or five days cannot be too strongly insisted upon. Isolated cases of exception to a general rule teach their own lesson, but cannot overthrow an almost universal experience."

The report shows that of those admitted during the first twelve months, 11 out of 78, or 14·1 per cent., only of the vaccinated died; whilst of those not protected by vaccination, 9 out of 32, or 28·1 per cent., died. From the opening of the hospital in February, 1871, to the same date in 1874, the total numbers stand thus:—Total admissions, 3125; deaths, 629; percentage of deaths in vaccinated persons, 8·6; in unvaccinated, 37·8. In these figures every person is reckoned as vaccinated who shows the slightest scar in the usual situations. Dr. Gayton has appended a table compiled by him from the Registrar-General's Returns, of the total deaths from small-pox during the last thirty-one years. From it we learn that there were epidemics of small-pox in 1844-5, in 1847-8, in 1851-2, in 1854-5-6, in 1859-60, in 1863-4-5-6-7, and again in 1870-1-2; that, with the

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exception of 1846 and 1853, there were regular intervals of two years between these outbreaks; and that in all the epidemics, save that of 1844, the commencement was in the latter part of the year. Lastly, the figures show an average of the enormous number of 1014 deaths in London from small-pox per annum. Our own deductions from these tables are twofold—first, that we can by no means afford to neglect vaccination in the manner in which it has been neglected of late years, since small-pox, though scotched, is by no means killed; and, secondly, that with so large an annual mortality from small-pox, it would be an act of folly to close such asylums as that at Homerton, with their trained and skilful superintendents and nurses, and all the needful appliances for the treatment of this loathsome disease, because in the event of another general epidemic it would be infinitely more costly to arrange again *de novo* for the necessary accommodation and the necessary officials, than it is to maintain the existing institutions. We trust that Dr. Gayton will continue to publish those cases of interest which occur from time to time under his care.

EARLY CLINICAL LECTURES BY DR. JOHN RUTHERFORD, OF EDINBURGH.

At the meeting of the Medico-Chirurgical Society, on Tuesday evening last, Dr. George Harley presented to the library of the Society, from Mr. Henry Vevers, of Hereford, a volume of Clinical Lectures by Dr. Rutherford, of Edinburgh, bearing date 1750. This volume is a manuscript copy of the clinical lectures delivered in the University of Edinburgh by Dr. Rutherford, as Professor of the Practice of Physic, from 1748 to 1756. It is written a clear, fair hand, and in good round English periods, and in all probability is one of several copies made for sale. These are probably the first clinical lectures ever delivered in a British school of medicine. The manner in which the library has become possessed of this interesting volume is as follows:—In November last we gave an abstract of Dr. Mapother's introductory address at the Royal College of Surgeons, Ireland. In this abstract of the address it was stated—"Clinical teaching is generally supposed to have originated during the present century in Dublin; but Dr. Mapother showed that so far back as 1785 four wards in Mercer's Hospital were set apart for the reception of cases for the lectures of the College of Physicians. He added, too, that clinical teaching was even older than this, having been pursued eighteen centuries ago, although in no very pleasant way for patients, as appears from lines translated from Martial." In the following week Dr. George Harley wrote a letter, which appeared in the *Medical Times and Gazette*, drawing attention to the fact that clinical lectures were given at the Edinburgh Infirmary by at least three successive generations of teachers during the last century—viz., Drs. Andrew Duncan, Francis Home, and Cullen; and in this letter a quotation from Thomson's "Life of Cullen" was made, to the effect that to Dr. John Rutherford belongs the merit of being the first to explain in clinical lectures the nature and treatment of the cases of patients admitted into a public hospital, and that to him this privilege was granted in the year 1748 by the managers of the Royal Infirmary, Edinburgh. Then followed, in these pages, letters from Professor Laycock and "A Bartholomew's Man" upon clinical teaching in Edinburgh and London, and a number of private communications were, Dr. George Harley states, addressed to him. Amongst these latter was one from Mr. H. E. Vevers, in which he referred to the volume in question. Mr. Vevers, at Dr. G. Harley's request, sent it up for his inspection, and subsequently consented to present it to the library of the Royal Medical and Chirurgical Society. Dr. Harley, in presenting the Lectures for Mr. Vevers, made some interesting remarks upon the priority of clinical lectures, and he expressed a hope that now that one volume of these lectures has been presented, it may happen that some other member of the profession having the second volume will be induced to present it also to the library, and thus enable the Medical and Chirurgical Society to possess a complete copy of these early clinical lectures. The University of Edinburgh, as we learn from Professor Laycock's letter, possesses the two volumes complete.

ESMARCH'S BLOODLESS METHOD.

At the Congress of the German Surgical Society at Berlin in April, an animated discussion followed a paper read upon the above subject by Professor Esmarch, the originator of the method. The results of the operations in the Kiel Hospital have been very successful since the introduction of the elastic bandage; only one fatal case having occurred in ten of amputation of the thigh, and one in eleven of amputation of the leg. The advantages claimed for the new method are that sponges and digital compression are dispensed with; a uniform pressure exerted on the soft parts; primary adhesion favoured; the administration of chloroform in small operations rendered unnecessary by the local anæsthesia which is induced; and serious operations rendered possible by a single surgeon on the battle-field or in the country. In post-partum hæmorrhage also the application of the bandage to the lower limbs may save life. Esmarch confessed to an objection raised by Hasse, that obstinate capillary bleeding may follow the removal of the bandage, but said it might soon be checked by forceps and water. Professor Langenbeck spoke very highly in favour of the method, and referred to its great value in operations on the scalp, and especially in the removal of vascular tumours from that situation. Care must be taken, however, in the application of the bandage, particularly in the case of the arm, not to injure the nerves by severe compression. Dr. Bryk, of Krakau, related a case of amputation of the thigh for necrosis about the knee, where fatal pyæmia might have been due to the elastic bandage forcing pus or thrombi from the seat of the disease into the circulation. To this Professor Thiersch replied that Esmarch had urged the necessity of care in such cases, and that the compression should be begun above the seat of the disease only. Esmarch himself said that in the case of disease about the knee he first bandages the leg, then raises it, passes the bandage lightly over the knee, and again applies it more tightly above the seat of the disease. Somewhat conflicting opinions were expressed by several of the members on the effect of the bandaging on the nerves of the parts, and on their consequent anæsthesia during operation.

ST. MARY'S HOSPITAL MEDICAL SCHOOL.

The annual distribution of prizes at St. Mary's Hospital took place on Wednesday afternoon, before a crowded audience. The prizes were given away by Professor Rolleston, M.D., F.R.S., who took occasion to make a few remarks respecting the present mode of teaching medical science. Two means, he said, only existed of testing the fitness of the young physician or surgeon for his important duties. The one was certificates of attendance at a certain number of lectures; the other, by public examination. He did not see how either could be dispensed with, as without attendance at lectures the necessary amount of knowledge could not be obtained, and without examination its possession could not be tested. Still, he feared that mere attendance at lectures, like compulsory attendance at chapel, would hardly tend to the acquirement of much knowledge; and then as for examination, there was so much cramming that it could hardly be relied on as a test. The path to real success lay with the students themselves, who should remember Bishop Temple's wise advice to the Rugby boys. Dr. Temple reminded them that human life was divided into portions, and that every portion had its allotted powers and duties. He who allowed any portion of his life to pass by without acquiring its knowledge and fulfilling its duties, would never after be able

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overtake the course of time. After one or two further observations, Dr. Rolleston distributed the prizes, and Dr. Shepherd, the Dean, read the annual report, from which it appeared that the school is in a very flourishing state.

HOSPITAL SUNDAY FUND.

The preparations for the carrying out of this movement for the present year are now well in hand. The day falls this year on June 14. The Council feel confident, and express every hope that the contributions for 1874 will considerably exceed those for 1873. The Lord Mayor receives contributions towards this fund, and all those interested in the movement, but unable to make their donations on the day, are requested to send their subscriptions to the Mansion House, addressed to Mr. Henry N. Custance, the Secretary to the Fund, who will furnish every information on the subject. The metropolitan clergy and other ministers of religion have again come forward to offer their ready co-operation.

MORTALITY IN INDIA.

In Calcutta 243 deaths were returned in the week ending April 11, equal to an annual death-rate of 28 per 1000; cholera caused 60 deaths, against 40 and 58 in the two previous weeks. In Bombay the deaths in the week ending April 28 were 311, and the rate was 25 per 1000. In Madras the 273 deaths in the week ending April 10 showed a rate of 36 per 1000; 38 deaths from small-pox were reported, against 66 and 35 in the two preceding weeks.

HEALTH OF LONDON.

In London last week 1326 deaths were registered, being 111 below the average number; 26 persons died from measles; not one from small-pox. To the seven principal diseases of the zymotic class, 138 deaths were returned, against 148 and 153 in the two previous weeks.

PARLIAMENTARY. — THE PUBLIC HEALTH (IRELAND) BILL—SUPPLEMENTAL CLAUSES TO THE PUBLIC HEALTH BILL FOR SCOTLAND—PLEURO-PNEUMONIA.

In the House of Commons, on Thursday, May 21,

Sir M. H. Beach moved the second reading of the Public Health Bill for Ireland, which resembles to a great extent that now in force in England and Wales. Ireland is more carefully and evenly divided into districts than England, and therefore uniformity of area for sanitary purposes would be secured in that country. The first few clauses provided for the establishment of urban and rural sanitary authorities. Under the tenth clause it is provided that half the salaries of the sanitary officers who are to be the medical officers of the dispensary districts is to be provided by Parliament, and the other half is to come out of the local rates. Intercepting hospitals would be provided at Irish ports of call with a view to prevent the introduction of cholera or other diseases. Provisions were also made for the formation of united districts for the purpose of improving the water-supply, or drainage where required, and for the compulsory purchase of land for suitable burial-grounds where these are necessary. The consolidation of the sanitary laws of Ireland is for the present impracticable, but the Government hope to bring in a measure with this object in view at some future time when it could be considered in conjunction with a like work for England.

Some Irish members having spoken in favour of the Bill, it was read a second time, and the Committee fixed for June 15.

The supplemental clauses to the Public Health Bill for Scotland were also read a second time

Lord Sandon, replying to Sir R. Buxton's question with reference to the compulsory slaughter of cattle infected with pleuro-pneumonia, said that the order had not been in operation for a sufficiently long period to show whether it could be rescinded with safety.

The House adjourned for the Whitsuntide recess.

The Local Government Board have awarded to George Lowther, Esq., the sum of £34 10s., for efficient services rendered as Public Vaccinator for the East District, Kingston-upon-Hull.

AN INTRODUCTORY LECTURE
TO A
COURSE OF LECTURES ON PUBLIC HEALTH.

Delivered at Charing-Cross Hospital, on Tuesday, May 19, 1874.

By G. V. POORE, M.D.,

Assistant-Physician to the Hospital, etc.; Lecturer on Forensic Medicine and Joint Lecturer on Public Health in the Medical School.

Gentlemen,—Those who, like myself, enjoyed the great privilege of listening to Sir William Jenner's lectures on Medicine at University College are not likely to forget the emphasis given to the opening sentence of the first lecture, that '*The great aim of the physician is to prevent disease.*" We are gradually all beginning to recognise the truth of this doctrine, and hence it is that lectures on "Public Health" are daily becoming more and more essential in the programme of every medical school. Dr. William Farr, in a lecture delivered before the British Medical Association in 1869, speaking of the duties of medical men in regard to public health, said: "We want help; and we ask for it from the chemist, the engineer, the naturalist, the highest statesman, and the humblest town councillor." The help of the last-named you are only likely to need when you come to apply your knowledge, but the help of the first two is surely necessary in the class-room, where the requisite knowledge of the science of public health is to be imparted to you. The thoroughly educated "sanitary officer" may be a being of the future, but as yet can hardly be said to exist; and therefore I think the Council of this school have done wisely in dividing the responsibility of teaching this important subject between a chemist, an engineer, and a physician. It is not for me to speak of the choice they have made. Of Mr. Heaton's successful teaching of chemistry in this school for many years it is needless for me to say anything. Of Mr. Eassie, who comes among us now for the first time, and whose works on sanitary engineering are well known, it is also needless for me to speak, unless it be to congratulate the school on having obtained his services. For myself, I will only say that I will do my best to merit your attention.

There may have been a time in the history of the world—when it was very young, however,—when the public health took care of itself and the conditions of existence were such as not to be likely to cause disease. When populations were very thin, when man was a noble savage almost untrammeled by clothing, living by hunting, never residing in dense crowds, leaving his effete matters to be disinfected by the earth, the air, and the sun; frequently changing his camping-ground; and before he had learnt to become luxurious, and to spend his time in habitations artificially warmed and artificially lighted, and to eat and drink a great deal more than is good for him,—when, in fact, he lived a life more like that of a wild animal (when, perhaps, he might have been rightly regarded as a wild animal), it is possible that disease was rare, that men attained the age of some of the Biblical patriarchs, and died at last of sheer old age, without ever having had even measles or hooping-cough, which nowadays none of us escape.

If we look at the history of the world, we find that wherever man has been collected into crowds, there disease has broken out.

The Bible is full of such instances. The Israelites in the desert were frequently smitten by pestilence, and many of the laws promulgated by Moses had most direct bearing upon public health. He at least seems to have recognised the importance of separating the sick from the healthy, and of thoroughly disinfecting the persons, clothes, and even the houses of those afflicted with leprosy or other forms of sickness. The plague which broke out among the hosts of Sisera, and the plague recorded by Homer as occurring at the siege of Troy, are familiar ancient examples.

It is not too much to say that, in the history of every great city, many chapters would have to be devoted to the history of its pestilences.

From the fourteenth to the seventeenth centuries, at a period when art was at its zenith,—when many of the cities of Europe were as crowded with inhabitants as they are at present,—when Genoa, Rome, Naples, Venice, Paris, and London

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were already great centres of commercial or political activity, filled with inhabitants sunken for the most part in the grossest superstition,—in the pre-scientific era, when men lived as artificially as they do at present, without the least knowledge of warding off the evils which such an artificial existence certainly brings with it,—in an age when flourished the greatest painters, sculptors, poets, and architects which the world has seen, but before the dawn of the Baconian philosophy,—disease was more rampant, perhaps, than at any period of the world's history.

In 1348, 100,000 persons are said to have died in London alone of the "black death"—a number frightful enough, but small when compared with the 40,000,000 deaths which occurred from the same cause throughout Europe. In the sixteenth century there were five outbreaks of the sweating sickness, an epidemic scarcely less fatal than the "black death"; and in the first sixty-six years of the seventeenth century there were five outbreaks of plague, the last of which, in 1665, claimed nearly 70,000 victims in London alone.

Let me ask you to cast your eyes at the bill of mortality for this city in the year 1661. I have selected 1661 because it seems to me to be a good average bill, neither very high nor very low; and from it we may learn what were the diseases which our ancestors had to fear in an ordinary way.

Bill of Mortality for the Year 1661.

Abortive and stillborn	511	Jaundies	141
Aged	1302	Imposthume	160
Ague and fever	3490	Killed by several accidents	26
Apoplexy and suddenly.	108	King's evil	48
Bedrid	3	Lethargy	11
Bleeding	5	Leprosy	1
Bloody flux, scowring, and flux	314	Lunatick, distracted, and frenzy	11
Burnt and scalded.	4	Megrims	3
Cancer, gangrene, and fistula	69	Measles.	188
Canker, sore mouth, and thrush	95	Mother	4
Childbed	224	Murdered, slain, and shot	52
Chrisomes and infants	1400	Overlaid and starved	37
Cold, cough, and hiccough	14	Palsy	26
Colick and wind	186	Plague	20
Consumption and tissick	3788	Planet	3
Convulsion	1198	Plurisy	11
Cut of the stone and stone	36	Poisoned	2
Dropsy and tympany	967	Quinsy and sore throat	13
Drowned	57	Rickets	413
Executed	16	Rising of the lights	227
Frighted	2	Rupture	18
Flox and small-pox	1246	Scurvy	85
Found dead in the streets, fields, etc.	8	Sores, ulcers, broken and bruised legs	61
French-pox	44	Spleen	5
Gout and sciatica	11	Spotted fever and purples	335
Grief	17	Strangury	23
Griping in the guts	1061	Stopping of the stomach	176
Hanged and made away themselves.	13	Surfeit	212
Head—mould-shot and mould-fallen	28	Swine-pox	6
Jaw-fallen	2	Teeth and worms	1195
		Vomiting	20
		Total	19,771

The gross mortality was 19,771, which, if we take the population of London at that time at half a million (for which there seem many good reasons), gives us an annual death-rate of 39·5 per 1000 people living.

The average death-rate at the present day in London may be put at 24 per 1000; so that, whereas the average age attained by the population was then only twenty-six years, it may now be stated as averaging nearly forty-two years. If, then, we may say that the science of public health has in the first two centuries of its existence lengthened the average lives of us Londoners by sixteen years, I think I need add no more facts to recommend the subject to your serious consideration.

An inspection of this bill of mortality forces many reflections upon us. There are causes of death, for example, which have now almost or completely disappeared. For instance, ague is very rarely seen at all in London, and when seen is never fatal. This fact is surely due to hygienic improvement in the matter of draining. Bloody flux, which was probably dysentery, has also almost disappeared, and from similar causes. Small-pox, which then seldom claimed less than its thousand victims a year, has now been robbed of all its terrors, and might probably, if there were more prudence and less fanaticism abroad, wholly disappear. Plague is no longer a cause of death with us. Spotted fever and the purples visit us but rarely; and scurvy, which then killed its eighty or ninety a year, has wholly vanished.

It will be obvious, too, to you that there are on the list many death-causes which, although they still remain, are far less operative now than then.

If we add together the deaths from violent causes, we find that they amount to 178. This gives us 1 violent death in every 111 deaths.

If we glance at the first return of the Registrar-General for the year 1837, we find that out of a total, for the latter half of the year, of 24,959 deaths, 580 were from violent causes. This gives us 1 violent death in every 43 deaths.

In the return for the year 1854, which I happen to have by me, we find that (excluding deaths from cholera) there was 1 violent death to every 35 deaths.

Thus we see that, whereas the general death-rate has steadily decreased, the deaths from violent causes have increased in an undue proportion, and we are forced to reflect that railways, machinery, and lucifer-matches have been formidable opponents to the efforts made by the science of hygiene to lower the death-rate.

In these bills of mortality there is a frequently recurring cause of death—viz., "blasted" and "planet-struck,"—and in one of them we find "apoplexy, blasted, and planet-struck" grouped together as though there was some relation between them. These facts, as well as the consideration of the immense mortality, make us appreciate the spirit in which was written that verse of the Litany:—"From lightning and tempest; from plague, pestilence, and famine; from battle and murder, and from sudden death. Good Lord deliver us." The nomenclature and classification of disease employed in these bills show us more plainly than could anything else the immense progress of medicine made since the dawn of science. The great mortality of these times was due in a small degree (at least, it is flattering to ourselves to think so) to the absence of anything like scientific medical knowledge. Mainly, however, it was due to faulty hygienic arrangements in the matter of houses, food, water, and drainage.

With regard to the houses, the following letter of Erasmus tells its own tale, and needs no comment:—

Letter of Erasmus to Francis, Physician to the Cardinal of York, 1518 *or* 1519.

"I often wonder and lament how it happens that for so many years Great Britain has been afflicted with pestilence without intermission, particularly with the sweating sickness, a malady which seems peculiar to itself. We read of a city being delivered from a pestilence which had long ravaged it by the destruction and renewal of its buildings, in accordance with the advice of some philosopher. Either I am greatly deceived, or by some such plan must England be delivered. In the first place, they never think whether their doors and windows face north, south, east, or west; and in the second place, the rooms are generally so constructed that, contrary to Galen's rule, no thorough draught can be sent through them. Then they have a large part of the wall fitted with sheets of glass, which admit the light but keep out the air, and yet there are chinks through which they admit that filtered air, which is all the more pestilential because it has been lying there a long time. Then the floors are generally strewed with clay, and that covered with rushes, which are now and then renewed, but so as not to disturb the foundation, which sometimes remains for twenty years nursing a collection of spittle, vomits, excrements of dogs and human beings, spilt beer and fishes' bones, and other filth that I need not mention. From this, on any elevation of temperature, there is exhaled a vapour which, in my judgment, is by no means beneficial to the human constitution. Besides, England is not only surrounded on all sides by the sea, but many parts of it are very marshy, and it is intersected with salt rivers, to say nothing just now of the salt fish, of which the common people are wonderfully fond. I should have confidence in the island becoming more healthy if the use of rushes could be abolished, and the bedrooms so built as to be open to the sky on two or three sides, and all the glass windows were so made as to open or shut once, and to shut so fast as to leave no chinks through which noxious winds could force a passage: since, as it

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sometimes healthy to admit the air, so is it sometimes healthy to exclude it. The vulgar laugh if you complain of their cloudy sky. I can only say, that for thirty years past, if I entered a room in which no one had been for some months, I would immediately begin to feel feverish. It would be an advantage if the vulgar could be persuaded to live more sparingly, and to be more moderate in the use of salt fish. Then there might be policemen who should have the charge of seeing that the streets were kept clean from filth, and they should also look after the neighbourhood of the city. I know you will laugh at me for making myself anxious about these matters, but I do so out of friendship for a country which has so long afforded me hospitality, and where I would willingly spend the remainder of my life if I could. I doubt not that you in your wisdom know far more about these things than I do, but I wished to mention them, in order that, if my judgment should accord with yours, you may commend them to the consideration of the leading men of the country, for these things used to be the care of monarchs. I would very gladly have written to his Reverence my Lord Cardinal, but I had neither time nor anything to say, and I know well how immersed he is in the affairs of State."

As to the diet of our ancestors, we have abundant evidence that it was excessive in amount, and largely consisted of animal food. To this was due the constant presence of "scurvy" as a death-cause, and there can be no doubt that an ill-nourished population like that of Old London was little able to resist the ravages of the various epidemics which worked such fearful havoc amongst it.

Of the water-supply of old London I have been able to find very little reliable information. In a plan of Roman London which is given in Mr. Walter Thornbury's account of "Old and New London," several streams, tributaries of the Thames, are indicated. Langbourne, Sherbourne, and Walbrook were then *bonâ fide* rivulets, but now remain to us only in name. The Fleet River is called in the plan "the River of Wells," and with some show of justice, for on its banks were Bridewell, Clerkenwell, Sadler's Wells, and Bagnigge Wells, as also the wells of St. Pancras. Into this river of wells flowed, from the westward, the *Old Bourne*, which we still have only in name as Holborn. This word *bourne*, which most certainly means brook, and is the same probably as the Scotch *burn*, is to be found also in the words Cranbourne, Tyburn, etc. It admits of no doubt that much of the water consumed by the inhabitants was taken direct from these brooks and from the Thames.

If we may take the names of streets and districts as any indication, we may infer that there were other brooks and wells from which the inhabitants were supplied, as the names of Shoreditch, Houndsditch, Shadwell, Goswell, Chiswell, and Holywell seem to bear witness. Private wells were probably common, and were, one would suspect, to be found in most of the better class of houses.

The earliest form of waterworks were the conduits, which were apparently reservoirs set up in the public places of some of the most crowded parts of the town, and which received their supply from the water-sources on the neighbouring high ground.

Timbs tells us that New Bond-street was in 1760 an open field, called *Conduit Mead*, from one of the conduits which supplied this part of the town with water; and Conduit-street received its name for the same reason. Carew Mildmay, who died between 1780 and 1785, told Pennant that he remembered killing a woodcock on the site of Conduit Mead when it was open country.

Spring water was formerly conveyed to public reservoirs in the city by leaden pipes from various sources in the suburbs—viz., from Tyburn in 1236, from Highbury in 1438, from Hackney in 1535, from Hampstead in 1543, and from Hoxton in 1546.

A drawing of the time of Charles I. shows a stone conduit in St. James's-square.

Lamb's Conduit was founded in 1577 by William Lamb, citizen and cloth-worker. The conduit head was in the fields near the street which bears its name, and Ormond-street, whence the water flowed in pipes 2000 yards long to the conduit on Snow-hill.

Tyburn furnished nine conduits, and with Bayswater was viewed periodically by the Lord Mayor. In 1562 it is recorded that on the occasion of viewing the conduits they dined at the Banquetting House, which stood on the site of Stratford-place, and that they killed a hare before dinner and hunted a fox afterwards. At the south end of the Serpentine you may see the remains of the conduit head which supplied Westminster-palace.

Mr. Thornbury gives us the following particulars concerning the conduits in Cheapside:—"The great conduit of Cheapside stood in the middle of the east end of the street, near its junction with the Poultry, while the little conduit was at the west end, facing Foster-lane and Old Change. Stow, that indefatigable stitcher together of old history, describes the larger conduit curtly as bringing sweet water 'by pipes of lead underground from Tyburn for the service of the city.' It was castellated with stone and cisterned in lead about the year 1285; and again new-built and enlarged by Thomas Ham,' a sheriff, in 1479." To these conduits repaired the water-carriers, "who were hired to supply the houses of the rich goldsmiths of Chepe, and who, before Sir Hugh Middleton brought the New River to London, were indispensable to the citizens' very existence. In the reign of Edward III. the supply of water for the city seems to have been derived chiefly from the river, the local conduits being probably insufficient. We read further that in the reign of Henry V. complaints were made by the poor that the brewers, who rented the fountains and chief upper pipe of the Cheapside Conduit, also drew from the smaller pipe below, and the brewers were warned that for every future offence they would be fined 6s. 8d.

There is, I believe, still at Pentonville a house called the "White Conduit Tavern," which stands partly upon the site of a notable but not very reputable place of entertainment called the White Conduit House, which was much frequented by the citizens of London a century ago. There were the remains of an old stone conduit here as recently as 1831. It was built in the reign of Henry VI., and repaired in 1641. It supplied the Carthusian Friars, and afterwards the boys at the Charterhouse School. In 1654 the yield fell short, and a supply from the New River was decided on.

"The difficulty of supplying a sufficient quantity of water to the inhabitants by means of wells, conduits, and water-carriers continued to increase until the year 1582, when Peter Morice, a Dutchman, undertook, as the inhabitants could not go to the Thames for the water, to carry the Thames to them. With this object he erected an ingenious pumping-engine in the first arch of London-bridge, worked by water-wheels driven by the rise and fall of the tide, which then rushed with great velocity through the arches. This machine forced the water through leaden pipes, which were laid into the houses of the citizens; and the power with which Morice's forcing-pumps worked was such that he was enabled to throw the water over St. Magnus's steeple, greatly to the wonderment of the Mayor and Aldermen, who assembled to witness the experiment. The machinery succeeded so well that a few years later we find the Corporation empowering the same engineer to use the second arch of London-bridge for a similar purpose. "The river-pumping leases continued in the family of the Morices until 1701, when the then owner sold his rights to Sir Richard Soams for £38,000, and by him they were afterwards transferred to the New River Company."—(Smiles' "Lives of the Engineers," vol. i.).

There is no room to doubt that the water-supply was wretchedly bad; and since it is certain that these various bournes, wells, and ditches, as well as the Thames itself, received the drainage of the soil and the sewage of the inhabitants, we cannot wonder that when the germs of some of those diseases which we call zymotic, and which are capable of being disseminated by water as well as by other means, were imported amongst the population, those zymotic maladies spread like wildfire, and proved disastrous in the manner that we read the black death, the sweating sickness, and the plague were disastrous. Even the most wholesome water which the Londoners could obtain was conveyed, we read, from Tyburn in leaden pipes and stored in a leaden cistern; and it would be curious to know how many of the inhabitants of Chepe suffered from attacks of colic or had blue lines upon the gums. It is true that the Thames, Kent, and Hertfordshire waters with which London is supplied at present seem incapable of acting upon lead, but of the power of the surface-water in the immediate neighbourhood of London to dissolve lead we know little. It is at least possible that the heading "Griping in the guts," which is so common in the old bills of mortality, may have included some cases of lead-colic.

The fact that, in the reign of Edward III.,—a reign memorable for one of the most fearful pestilences that this or any other country has ever seen—the inhabitants apparently preferred to take their water directly from the river, renders it probable

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that the brooks and bournes had lost even then that coarse purity of which our senses can take cognisance. Walbrook, Oldbourne, and Langbourne, the very sites of which have passed away, were probably little better than open sewers, and had lost those characteristics which a wholesome brook should have—

"With here and there a lusty trout,
And here and there a grayling;"

and—

"With many a silvery water break
Above the golden gravel."

The drainage of old London consisted probably of cesspools and surface-drains; and the lines of Swift, in which he describes a city shower, coarse though they be, seem worthy of quotation, as giving a vivid picture of metropolitan hygiene, even as late as the reign of Queen Anne:—

"Now from all parts the swelling kennels flow,
And bear their trophies with them as they go:
Filth of all hues and odours seem to tell
What street they sailed from by their sight and smell.
They, as each torrent drives its rapid force,
From Smithfield to St. Pulchre's shape their course,
And in hughe confluence joined at Snow-hill ridge,
Fall from the conduit prone to Holborn-bridge.
Sweepings from butchers' stalls—dung, guts, and blood—
Drowned puppies, stinking sprats, all drenched in mud,
Dead cats, and turnip-tops, come tumbling down the flood."

Since the great plague of 1665, London has not, happily, been visited by any pestilence of at all similar proportions. This is attributable to several facts, foremost among which is doubtless our improved knowledge of disease and its causes; and we must not forget that the epochs of these last great plagues were also the epochs in which flourished two such men as William Harvey and Thomas Sydenham. Froude ("History of England," vol. i., p. 61), speaking of the change that gradually came over the English nation at the period of the Reformation, says:—"The paths trodden by the footsteps of ages were broken up; old things were passing away, and the faith and the life of ten centuries were dissolving like a dream. Chivalry was dying, the abbey and the castle were soon together to crumble into ruins, and all the forms, desires, beliefs, convictions of the old world were passing away, never to return. A new continent had risen up beyond the western sea. The floor of heaven, inlaid with stars, had sunk back into an infinite abyss of immeasurable space, and the firm earth itself, unfixed from its foundations, was seen to be but a small atom in the awful vastness of the universe! In the fabric of habit which they had so laboriously built for themselves, mankind were to remain no longer."

Philosophers had begun to inquire methodically into the meaning of, and to seek for reasonable interpretations of, natural phenomena; and the science of medicine could not—as we know it did not—escape the influence of that general change of thought which was going on around it.

(To be continued.)

EXPERIMENTS WITH STRYCHNINE AS AN ANTIDOTE TO SNAKE-POISON.

By V. RICHARDS, Civil Surgeon, Balasore.

Experiment 1.—A dog was bitten by a sea-snake at 12.32 p.m. 12.40 p.m.: Administered half a grain of strychnine. 12.59 p.m.: Much affected. It became very convulsed. 1.8 p.m.: Dead in thirty-six minutes.

Experiment 2.—A dog was bitten by a cobra at 12.47 p.m. 12.48 p.m.: Hypodermically injected a quarter of a grain of strychnine. 12.53 p.m.: Injected another quarter of a grain. 1.7 p.m.: Much affected. This dog was not so much affected with convulsions as the one used in Experiment 1. 1.19 p.m.: Dead in thirty-two minutes.

Experiment 3.—A dog was bitten by a daboia at 12.54 p.m. 12.56 p.m.: Hypodermically injected three-sixteenths of a grain of strychnine. This animal died in the night.

Experiment 4.—Hypodermically injected into the thigh of a small dog a quarter of a grain of cobra poison at 1.22 p.m. At 1.29 p.m. hypodermically injected a quarter of a grain of strychnine. At 5.40 p.m. convulsed. 6.20 p.m.: Dead in four hours fifty-eight minutes. This animal lived one hour and eight minutes longer than two other dogs (of the same size) in which the same quantity of poison had been injected. This animal also suffered much less than the other two. The blood did not coagulate so firmly as usual.

Experiment 5.—Hypodermically injected into the thigh of a middling-sized though full-grown pariah dog a quarter of a grain of cobra poison at 1.59 p.m. 2 p.m.: A quarter of a grain of strychnine hypodermically injected. 3.40 p.m.: Half a grain of strychnine injected. 4.25 p.m.: Much affected by the strychnine; constant and rigid contractions of all the voluntary muscles. 8.15 p.m.: Dead. This animal died from the effects of the strychnine. A very large dose was injected—viz., three-quarters of a grain.

Experiment 6.—Friday, at 1.40 p.m.: Hypodermically injected one-eighth of a grain of dried cobra poison into the thigh of a half-grown pariah dog. 1.43 p.m.: Injected a quarter of a grain of strychnine. 3.45 p.m.: Injected another quarter of a grain of strychnine. Saturday, 10.15 p.m.: Injected one-sixteenth of a grain of strychnine. 3 p.m.: Up to this time the dog had suffered only slightly from occasional tetanic spasms. 3.15 p.m.: Appears drowsy, and is affected apparently by the snake-poison. This dog recovered. I had injected one-eighth of a grain of cobra poison into another dog of a somewhat larger size, but this animal suffered considerably less. The other dog, to which no strychnine had been given, suffered much from restlessness, vomiting of blood, and convulsions, but ultimately recovered also.

Experiment 7.—Tuesday, 5.14 p.m.: Hypodermically injected a quarter of a grain of cobra poison into a middling-sized dog's thigh (I had injected one-eighth of a grain three days previously). Wednesday, 3 a.m.: Vomited. 3.30 a.m.: Drowsy. 7.32 a.m.: Is trembling all over; salivation. 7.42 a.m.: Convulsed. 8.15 a.m.: Insensible and convulsed. Injected one-sixteenth of a grain of strychnine. Remained insensible, and then dyspnœa was urgent. 3 p.m.: Injected another one-sixteenth of a grain of strychnine. 3.51 p.m.: Restless and convulsed. 4.55 p.m.: Violent retching; attempts to bark; seems much distressed. 5.5 p.m.: Is better. 5.25 p.m.: Has stood up for five minutes. This dog gradually improved, and ultimately recovered.

This is another instance demonstrating what serious symptoms of poisoning may arise without a fatal termination. It would appear that the strychnine was beneficial in this case, but the quantity of cobra poison injected may have been sufficient to provoke serious symptoms, but not death. These experiments on the whole, and so far as they go, are unfavourable to strychnine,(a) though I do not consider the matter settled beyond doubt. I noticed one fact particularly, and that is the comparative freedom from convulsions in those cases where strychnine had been administered. The physiological actions of curara and strychnine are antagonistic, and this fact led me to try strychnine again.

The following experiments were made to ascertain the quantity of poison necessary to kill, as also to note the effects of the poisons of different snakes:—

Experiment 1.—At 12.35 p.m., hypodermically injected one grain of cobra poison into the thigh of a middling-sized dog. 3 p.m.: Injected another two grains. 3.13 p.m.: Much affected. 3.32 p.m.: Convulsed. This animal would have died very soon, but I prolonged life for thirteen hours by artificial respiration.

Experiment 2.—At 1.5 p.m., hypodermically injected into a *small* pariah dog four grains of cobra poison. 1.45 p.m.: Fell over and was convulsed. Notwithstanding the very large amount of poison injected (much more than sufficient to kill), life was prolonged for ten hours by artificial respiration.

Experiment 3.—At 11.50 a.m., hypodermically injected into a *small* pariah dog's thigh two grains of cobra poison. 12.45 p.m.: Much affected. 1 p.m.: Convulsed. Life was prolonged for eight hours and a half by artificial respiration.

Experiment 4.—At 1.3 p.m., hypodermically injected one grain of cobra poison into the thigh of a *large* dog. 4.2 p.m.: Much affected. 5.5 p.m.: Convulsed. 7.30 p.m.: Dead in six hours twenty-seven minutes.

Experiment 5.—At 1.9 p.m., hypodermically injected half a grain of cobra poison into the thigh of a *middling-sized* dog. 3.32 p.m.: Much affected. 4.50 p.m.: Dead in three hours forty-one minutes.

Experiment 6.—At 1.15 p.m., hypodermically injected a quarter of a grain of cobra poison into the thigh of a small

(a) Strychnine proved equally unsuccessful in Dr. Fayrer's experiments.

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dog. 4.32 p.m.: Much affected. 5.5 p.m.: Dead in three hours fifty minutes.

Experiment 7.—At 1.30 p.m., hypodermically injected a quarter of a grain of cobra poison into the thigh of a small pariah dog. 3.53 p.m.: Much affected. 4.55 p.m.: Dead in three hours twenty-five minutes.

Experiment 8.—Friday: Hypodermically injected one-eighth ot a grain of cobra poison into the thigh of a half-grown pariah dog at 1.32 p.m. 2.48 p.m.: Appears affected slightly. Saturday, 2.10 a.m.: Vomiting. 7.20 a.m.: Convulsed. 10 a.m.: Appears to be in much pain. 11.38 a.m.: Vomiting blood. 7 p.m.: Very weak; has taken food. Sunday, 7 a.m.: Seems pretty well. Ultimately recovered.

The above experiment shows that serious symptoms may arise, and yet the animal ultimately recover.

Experiment 9.—A middling-sized though full-grown dog had a quarter of a grain of cobra poison injected into its thigh at 1.48 p.m. 2.48 p.m.: Seems slightly affected. This animal did not become much affected, and ultimately recovered.

Experiment 10.—Friday, 2.15 p.m.: Hypodermically injected one grain of daboia poison into the thigh of a large dog. Saturday: Appears drowsy, but not much affected. The leg is enormously swollen and partially paralysed. This animal recovered.

It has generally been supposed that the severe local symptoms in a viper-bite, compared with those in a colubrine snake-bite, are due more particularly to the enormous fangs of the viper. This experiment, however, though not conclusive, would make it appear that the viper poison—though, quantity for quantity, less fatal than the cobra poison—is infinitely more irritating.

Experiment 11.—Tuesday, 5.8 p.m.: Injected three-quarters of a grain of cobra poison into the thigh of a large dog (that used in Experiment 10). Wednesday, 3.45 a.m.: Much affected. 6.20 a.m.: Convulsed. 7 a.m.: Dead in twelve hours and eight minutes.

This experiment shows that three-quarters of a grain of cobra poison is infinitely stronger than one grain of daboia poison.

Experiment 12.—Injected a quarter of a grain of cobra poison into the thigh of a half-grown dog (that used in Experiment 8) at 5.22 p.m. on Tuesday. Wednesday, 7 p.m.: Much affected. 8 p.m.: Insensible. 9.35 p.m.: Dead in fourteen hours and fifty-seven minutes.

Experiment 13.—Tuesday, 5.32 p.m.: Hypodermically injected a quarter of a grain of cobra poison into the thigh of a half-grown pariah dog (this animal had been recently used). Wednesday, 3.30 a.m.: Much affected. 7.55 a.m.: Convulsions. 8.55 a.m.: Dead in fourteen hours and twenty-seven minutes.

Experiment 14.—Hypodermically injected two grains and a half of cobra poison into the thigh of an old cow at 9.7 a.m. 11 a.m.: Appears to be affected. 2.42 p.m.: Salivated, and is standing up with its neck extended. 3.20 p.m.: Fell over and became convulsed. 4 p.m.: Dead in seven hours and seven minutes.

Experiment 15.—Hypodermically injected one grain of cobra poison into an old cow at 9.12 a.m. 2.42 p.m.: Unaffected, and is grazing. 4 p.m.: Unaffected. This animal was only slightly affected at 3 a.m. the next morning, and ultimately recovered.

Experiment 16.—Hypodermically injected one grain and a half of daboia poison into the thigh of a large pariah dog at 11.52 a.m. Monday, 6 a.m.: Much affected. Tuesday, 3 a.m.: Dead in fifteen hours and eight minutes.

Experiment 17.—Injected half a grain of cobra poison into a small fowl at 10.35 a.m. Convulsed at 10.40 a.m. 10.55 a.m.: Dead in twenty minutes.

Experiment 18.—Injected one-sixteenth of a grain of cobra poison into a middling-sized fowl at 10.40 a.m. 10.46 a.m.: Slightly convulsed. 11.25 a.m.: Dead in forty-five minutes. This bird suffered very much from convulsions.

Experiment 19.—Injected one-thirty-second part of a grain of cobra poison into a good-sized fowl at 10.43 a.m. 11.55 a.m.: Much affected. 1.30 p.m.: Convulsed. 2.50 p.m.: Dead in four hours seven minutes. This fowl also suffered much from convulsions.

Experiment 20.—Injected one-sixteenth of a grain of daboia poison into the thigh of a fowl at 2.18 p.m. 2.22 p.m.: Much convulsed. 2.23 p.m.: Dead in five minutes. This is wonderfully quick, but the bird was suffering from chicken-pox.

Experiment 21.—Injected one-sixteenth part of a grain into a fowl at 2.33 p.m. on Monday. Tuesday, 2.37 a.m.: Is evidently affected. Continued in the same state until Tuesday at 4.30 p.m., when it died, in twenty-five hours and fifty-seven minutes.

Experiment 22.—Injected one-thirty-second part of a grain of daboia poison into a fowl at 2.19 p.m. on Monday. 2.47 p.m.: Is affected. Noon, Tuesday: Dead in nine hours and forty-one minutes.

Summary.—There are several interesting and important conclusions to be drawn from the foregoing experiments. The poison, when first taken from the cobra, weighs on an average about thirteen grains, and this, again, on drying usually weighs five grains. At one bite a fresh cobra would probably inject what would represent, if dried, five or six grains of poison, but it may inject no more than one grain, or even less. It follows, then, that the symptoms of poisoning must vary from the slightest to the most fatal. This is indeed well shown in the above experiments. In Experiment 8 the dog was convulsed, and appeared as if it would die, though it ultimately recovered; and in Experiment 9, though a greater quantity of poison was injected, the animal scarcely suffered at all. Experiments 20, 21, and 22 would seem to indicate that some constitutions have the power to resist the action of the poison better than others. In Experiment 20 the fowl was sickly, though large, and it died in five minutes after the injection of the sixteenth part of a grain of daboia poison. The small fowl into which a similar quantity of poison had been injected did not die until twenty-five hours and fifty-seven minutes had elapsed. And the fowl used in Experiment 22, though it was larger and had been injected with the thirty-second part of a grain only, died in nine hours and forty-one minutes. There is a marked difference in the power of the daboia and cobra poisons: quantity for quantity, the cobra poison is much stronger. Thus we find that in Experiment 4 one grain of cobra poison killed the dog in six hours and twenty-seven minutes; and in Experiment 10, the dog being of the same size and strength as that used in the former experiment, one grain of daboia poison had very little effect. In Experiment 16 one grain and a half of daboia poison did not kill until fifteen hours and eight minutes after the injection of the poison. Fresh cobra poison is of course infinitely quicker in its action than the dissolved dried poison, though it is not more certainly fatal. The poison of the daboia is a much greater local irritant than that of the cobra. The parts, after the injection of daboia poison, become very much swollen, and after death, when cut into, present an appearance not unlike red-currant jelly. In daboia-bite the blood of the poisoned animal is invariably fluid and non-coagulable; but it is remarkable that in the animals used in Experiments 16, 20, 21, and 22 (daboia poison having been hypodermically injected) the blood coagulated. I am at a loss to understand why this should be. In all the other cases in which cobra poison was used the blood was, as usual, coagulable. It would appear that sufficient poison is shed by a cobra at one bite to poison about from three to five human beings, or from eight to twelve dogs, or two or three cows, or from 100 to 200 fowls. These experiments by no means exhaust the subject; but, unfortunately, I have no assistance, and it is impossible for one man to carry on thoroughly a series of experiments requiring constant attention when he has other important duties to perform. It would be very interesting to test all snake-poison in this manner.

Treatment by the Intravenous Injection of Ammonia.

The following additional experiments were performed by the intravenous injection of ammonia:—

Experiment 1.—Two grains and a half of cobra poison were hypodermically injected into a cow. Three drachms of liq. ammoniæ were injected into the left jugular vein. The animal died in seven hours.

Experiment 2.—Injected three-quarters of a grain of cobra poison into the jugular vein of a dog. Eighty drops of ammonia were then injected. Dead in ten minutes.

Experiment 3.—Hypodermically injected three-quarters of a grain of cobra poison (this was only sufficient to kill) into the thigh of a large dog. Injected at different times 120 drops of liq. ammoniæ into the jugular vein. Dead in four hours and fifteen minutes.

Experiment 4.—Hypodermically injected half a grain of cobra poison into the thigh of a middle-sized dog. Sixty drops of ammonia injected at different times into the jugular vein. Dead in three hours and twenty-five minutes.

The above experiments were performed in the presence of

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Mr. E. D., of the Indian Telegraph Department. If the injection of ammonia is of any use in Australian snake-poisoning there must be a considerable difference in the nature of the poison, as it is quite useless in Indian snake-poisoning.

Experiment 5.—Hypodermically injected half a grain of cobra poison into the thigh of a full-grown dog. Injected forty drops of ammonia into the jugular vein. Dead in six hours and thirty-seven minutes.

Artificial Respiration.

Experiment 1.—A small pariah dog was bitten by a sea-snake (*Enhydrina Bengalensis*) at 11.45 a.m. This snake, with seven others, was brought to me from Chandipore, on the sea-coast, eight miles from the station, several days ago, and has since been kept in my bathing-tub, which is half-filled with sea-water, a good supply of fish being kept up. It was quite fresh, and bit viciously. The dog gradually became affected, and at 11.50 a.m. I opened the trachea, inserted a canula, and commenced artificial respiration by means of a pair of bellows. When artificial respiration was commenced, the animal to all appearances was dead; but after continuing it for five minutes there was one convulsive movement of the body. The heart continued to beat until 12.29 p.m., when it suddenly ceased. This case shows how rapidly fatal the bite of a sea-snake may be. Death (apparent) occurred fifteen minutes after the bite, and artificial respiration was continued for nearly half an hour.

Experiment 2.—A dog was bitten by a cobra at 11.50 p.m. At 12.30 p.m. artificial respiration was commenced, the dog being apparently quite dead, except that the heart continued to beat at intervals. 12.40 p.m.: Convulsive movements of the mouth and limbs. These were continued up to 1.15 p.m. When they ceased, the animal micturated. 1.32 p.m.: Heart still beating. 1.45 p.m.: Heart still beating, but more regularly. 1.55 p.m.: The pulse (femoral) beats so rapidly that it cannot be counted. 2.20 p.m.: Heart still beating rapidly; temperature 99°. 2.45 p.m.: Heart beating quickly and somewhat irregularly; temperature 98·40°. 2.55 p.m.: Pulse much weaker and more irregular; temperature 97·50° (rapidly falling). 3.10 p.m.: Temperature 98·20°; heart ceased to beat.

In this case death (apparent) occurred forty minutes after the bite, and the heart continued to beat for two hours and forty minutes. I found half an ounce of urine in the bladder, which I injected into the thigh of a fowl. The bird to all appearances remained perfectly unaffected.

Experiment 3.—A pariah dog was bitten by a fresh cobra at 1.5 p.m. The cobra bit the dog most fiercely. 1.30 p.m.: Struggling violently; artificial respiration commenced. The heart continued to beat until half-past three, when it ceased. Artificial respiration was continued until five o'clock. I have my doubts as to whether artificial respiration was properly kept up by my assistant during my unavoidable absence. The blood in these instances did not coagulate firmly as is usual. The blood as usual was fluid in the case of the daboia bite.

LANDOIS ON TRANSFUSION WITH THE BLOOD OF DIFFERENT KINDS OF ANIMALS.

Some very interesting and valuable experiments have lately been made by Professor Landois, of Greifswald, to determine the changes which take place in the blood of one animal when transfused into the circulation of another of a different species. He was led to investigate the subject in consequence of the use which has lately been made of animals' blood in transfusions into the human subject; and his results are published in the *Centralblatt* for December, 1873, Nos. 56 and 57.

Dogs were injected with the blood of man, of the sheep, cat, guinea-pig, calf, pig, and pigeon; rabbits, with the blood of the hare, sheep, calf, and of man; while transfusion of human blood was performed on the sheep. The frog was especially studied as the subject of transfusion of the blood of all the animals already enumerated, as well as of the pike, and the *Rana esculenta* was injected with the blood of *Rana temporaria*. The veins which run on the surface of the frog's abdomen render transfusion with an ordinary hypodermic syringe very easy of execution. It was found that if from 0·5 to 0·8 cubic centimetres of fresh or defibrinated mammalian blood were injected into the veins of a large frog, changes rapidly occurred in it, the most marked being a dissolution of the red corpuscles, so that the frog's serum acquired a deep ruby-red lac-colour (*Lackfarbe*), from the hæmoglobin set free from the corpuscles. In transfusions with rabbit's blood, the dissolution was nearly completed in from three to five minutes, and in other animals generally in from twenty to thirty minutes. Dog's and pigeon's blood resisted the longest.

The determination of these periods was made by taking separate portions of blood at very short intervals from one of the frog's toes, the blood being put up for microscopic examination in Pacini's fluid (corrosive sublimate one part, pure chloride of sodium two parts, glycerine thirteen parts, distilled water 113 parts). Some idea of the amount of dissolved hæmoglobin was obtained by comparing the tint of the frog's serum with portions of the mammal's blood experimented on, diluted with known quantities of water. Part of the hæmoglobin of the dissolved corpuscles is found in the urine of the frog in company with albumen. Frog's blood (either fresh or defibrinated) was also mixed with the blood of the other animals and examined microscopically, or else their blood was examined in frog's serum. It was then found that the red corpuscles, often after first assuming an irregular outline, and exhibiting lively molecular movements, become perfectly globular, and so appear smaller than before; they then become paler and paler, till at last only the "stroma"(a) remains visible, and this at last also disappears. The "stromata" often aggregate into masses, and thus can give rise to embolism and consecutive inflammatory phenomena in the circulation. Possibly the paralysis of the hinder extremities, and the weakened action of the central nervous system, which Landois has not unfrequently seen follow the injection of mammalian blood into the frog, may be due to such embolisms. If a frog be injected with serum which has been freed as much as possible from corpuscles, its urine is found for several days after to contain albumen and blood; so that in all cases of transfusion it is probable that some of the cells of the receiving animal are destroyed as well as those of the giver. But this mutual action varies much in different species, for moderate injections of serum from man and the sheep caused albumen alone to appear in the frog's urine.

The experiments in which transfusion was performed between two different species of the *mammalia* gave two chief results:—(*a*) The serum of the blood—either fresh or defibrinated—of many mammals dissolves the blood-corpuscles of other mammals, and of the former the dog's serum is most powerful, and the rabbit's the least. (*b*) Mammalian blood-cells vary much in their resisting power to the action of the serum of other animals, and here, again, the rabbit suffers most, and the dog and cat resist the longest; the dissolution is accelerated by warmth. Rabbit's blood injected into a dog is destroyed in a few minutes. The dissolved constituents of the blood are disposed of in two ways; they are party excreted, principally by the urine, but in smaller and uncertain quantities by the bowels, uterus, bronchi, and into the serous cavities. The other part probably goes towards the nutrition of the receiver.

As to the value of transfusion as a remedy, either for loss of blood or for constitutional anæmic conditions, Dr. Landois believes that it may benefit the receiver in three ways—(1) by bringing nutritive material into his body; (2) by the oxygen which is derived from the dissolved blood-cells and in its serum; (3) by possibly, in certain circumstances, improving the mechanical conditions of the circulation. He does not think that there is much probability of the foreign blood-cells ever taking on themselves the physiological functions of those of their receiver,—at any rate where the two species stand a little way apart in the scale of nature,—but he has no data on which to found a certain opinion with regard to very closely allied species.

Albumen and hæmoglobin are found in some cases in the urine as early as one hour and three-quarters to two hours and a half after transfusion, and their excretion lasts twelve hours or more. In consequence of the partial destruction of the cells of the receiver's blood by the foreign serum in some animals (*e.g.*, the rabbit), symptoms of great severity and danger may occur after the operation, such as immensely quickened respiration, dyspnœa, convulsions, and even death or asphyxia may follow it.

Portions of test blood, taken at different intervals from

(a) The term "stroma" is given by Rollett to the blanched, pale globular residue of the red corpuscle, after removal of the colouring matter.

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animals in such conditions, show all stages of dissolution of the corpuscles, and the urine becomes bloody and albuminous if life is sufficiently prolonged. In animals whose corpuscles have great resisting power (*e.g.*, the dog), these phenomena do not appear, the foreign serum itself undergoing change before it has time to act.

Death may occur, after copious transfusions, from the rapid massing together of the foreign (or the animal's own) blood-cells, which leads to extensive coagulations of fibrine in the vessels; and many kinds of blood exhibit the phenomenon that when mixed with other blood their corpuscles aggregate into masses, which may give rise to capillary embolisms in the lungs. The danger of transfusion into the blood of different animals, therefore, depends on the relation of the species employed.

As a sort of appendix to Dr. Landois' experiments, we should like to record here some cases of actual transfusion of *lamb's* blood into the human subject, published by Dr. Hasse, of Nordhausen (*Tagesblatt der 46 Versammlung, Deutscher Naturforscher;* Wiesbaden; No. 7, 1873). Interesting in themselves, they derive additional interest from the light which Dr. Landois' researches throws on some of their phenomena, and they afford an indirect confirmation of his statements of a striking nature. The cases are twelve in number, and distributed as follows:—Five were phthisis, two chlorosis, two cachexia after severe illness, one cachexia with caries of the vertebræ, one carcinoma ventriculi, and one placenta prævia with severe hæmorrhage. This last case recovered rapidly, the two cases of general cachexia recovered gradually, and the chlorotic patients only very slowly. The patient with carcinoma was temporarily benefited, and the one with spinal disease improved in general health and had less suppuration. The results in the phthisical cases were wonderfully satisfactory (*enorm günstige*).

The reaction following the operation was very violent. There was marked dyspnœa, which even amounted nearly to apnœa, and necessitated interruption of the operation after sixty to ninety seconds. Half an hour after there was a violent rigor, and the temperature rose to 40·9° C. (105·6° Fahr.), and then deep sleep followed, and on waking there was a feeling of comfort experienced. The patients quickly gained several pounds in weight, and their muscular strength and mental energy rapidly improved. In a few cases there was a slight excretion of albumen and the colouring matter of the blood in the urine. Does not Dr. Landois give the key to the dyspnœa and to the condition of urine here described?

FROM ABROAD.

Bromide of Potassium.

At a meeting of the New York Academy of Medicine (reported in the *Medical Record*, May 1), Professor Lewis Smith read a paper upon the therapeutical action of this substance, and especially as it related to the diseases of children. He thought that the time had arrived for appreciating its actual value, the exaggerated views concerning this which at first prevailed having subsided. The bromide is probably as safe a remedy as any in the pharmacopœia, an irritable state of the gastro-intestinal mucous membrane and organic disease of the kidney being only the conditions which seem to contraindicate its employment. In children, however, it may do harm when administered during the condition of the kidney which exists after scarlatina. The injurious results which sometimes attend its prolonged employment or large doses, such as the formation of carbuncular or cutaneous eruptions, loss of memory, imbecility, dimness of vision, irregularity of gait, etc., are usually temporary, disappearing on the disuse of the remedy. Dr. Smith has found it useful in the convulsions of newly-born infants in doses varying from a quarter of a grain to two grains, given every two or three hours; but in *trismus nascentium* it is much inferior to chloral. In dental irritation it is so beneficial that the gum-lancet is scarcely ever required. In the various diseases in which convulsions are threatening it is of service, as for example in infantile pneumonia or bronchitis, in pertussis, and when great nervous agitation and irritation are present in eruptive diseases.

Dr. Squibb remarked that bromide of potassium, as met with in the market, is an article of unusual purity, considering the large quantities made. *Epilepsy* was the only disease in which he had had personal experience in its employment. Of this disease he related five cases, and especially dwelt upon the point that failure is often the consequence of too small quantities being employed. In the first case some months were required to reach the doses necessary to arrest or materially modify the paroxysms, and no success was obtained until doses of from thirty-two grains to thirty-five grains ter in die were administered. Even by these the paroxysms were influenced, but not arrested. *Bromism* should be induced before the efficacy of the remedy can be fairly said to have been tested. The indications of this vary, but the earliest symptom consists in sleepiness or hebetude, an irresistible tendency to sleep or stupor being gradually induced. This is followed by irritability of temper and mental disturbance, varying in different cases. The doses required to produce this vary in different cases, an instance being given in which sixty grains ter in die were continued for more than ten days. When the bromism has been induced, the remedy may be suspended without lessening its effect; and on resuming it at the end of about ten days, the maximum dose at which it has been discontinued should be given. On the recurrence of bromism, it may again be suspended, and then renewed, and so on, so that the remedy can be thus continued for two years and a half and more without detriment. The element of time is of great importance in these cases. Dr. Squibb did not regard any of the cases related by him as absolutely cured, much time being required to wear out the habit that had been acquired and had much to do with the recurrence of the attacks. He believes that want of success is very frequently due to insufficiency of dose, "and the inefficiency with which the case is dogged out, pursued, and adhered to until it gives way." He employs a solution of twelve grains and a half to a drachm, this being filtered, when it will remain clear. The best vehicle is ice-cold water, which is never rejected by the stomach. Like all alkaline salts, it should not be given nearer than fifteen minutes before a meal, or it may interfere with digestion.

Dr. Caro observed that it now seems well established that the bromide produces contraction of the capillaries, especially those of the brain; and it is therefore important to determine, if possible, whether the brain is capable of resisting its action on the capillaries. If the amount of blood is sufficient to produce capillary congestion, and consequent convulsive or epileptic fits, the bromide, having the power of contracting the capillaries, will be of service; while, if the brain is already without its proper supply of blood, the action of this substance will probably only increase the force of the paroxysmal seizure. Dr. Caro prefers the bromide of zinc, and gives doses of fifteen grains four times a day. He instanced cases of delirium tremens and insolation in which he has found it of service, and in cholera infantum, accompanied by congestion of the brain or congestion of the gums in teething, he has found bromide of potassium the best of remedies. In many cases he has found it completely efficacious by rubbing the congested and swollen gums with the solution. In laryngismus stridulus, too, he has administered five-grain doses in spray with great success. In diphtheria the bromide is also of service, and, applied locally, diminishes the amount of deposits to the great relief of the patient. In the nausea and vomiting of pregnancy the results obtained have been sometimes surprising; and as a means of relieving the pain in dysmenorrhœa it has proved very efficient. Its local application in hyperæsthetic conditions of the skin, as the itching of pregnancy, has been of great service.

Dr. Peaslee regards the bromide as a very powerful cerebro-spinal sedative, but as exerting little influence on the ganglionic system. It usually acts best in combination with other remedies, and is very useful, *e.g.*, as a corrective of the disagreeable effects of opium, a single large dose being given a few hours before the opium. Dr. Peaslee has used the bromide with good effect in the convulsions of newly-born children; but it is not reliable in true trismus, which occurs at a later period. In cases of threatened eclampsia in the sixth and seventh months of pregnancy, when the kidneys become inactive, given in fifteen-grain doses ter in die it is one of the greatest safeguards in this complication. When the eclampsia has become established, it is not to be relied upon. As a hypnotic it is very useful, but must be given in doses only determined by their effect. Thus, from twenty to forty grains may be prescribed the first night,

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and, if sleep is not obtained, a much larger dose must be given on the second. If the patient be accustomed to stimulants, much larger doses will be required. In spasmodic cough the bromide should always form part of the prescription. When administered alone it should always be given in cold water. The local application of the solution is of immense value in some cases of pruritus vulvæ. After washing the parts thoroughly with warm water, the solution may be applied of any strength desirable up to saturation.

Dr. Van Kleek said that he had used the bromide in a large number of cases of sick-headache with much benefit. Dr. Peters stated that a favourite combination of his when the patient was pale, weak, and nervous was—sweet wine of iron ʒiv., bromide ʒj.; dose ʒj. With this he had been able to continue the bromide in cases in which this otherwise would have been impossible. He had found the bromide very beneficial in menorrhagia, and he had given an ounce of it in the twenty-four hours in delirium tremens with marked benefit.

Mortality Returns of the Paris Hospitals.

M. Besnier, in his report to the Paris Hospital Society for the second portion of the "medical winter" corresponding to the first three months of this year, states that the season continued as little rigorous as during the last three months of the preceding year. Southerly and westerly winds predominated, rain was far less abundant than in other years, and the ozonometric mean did not vary. During this quarter typhoid fever reached its lowest point for the year, small-pox no longer presented itself, while measles and diphtheria exceeded the habitual level, so as to constitute an epidemical condition. The general mortality of the hospitals was very low, lower indeed than that of recent years, although this had been remarkably slight. Thus, while the deaths of the first three months of the year were 3346 in 1867, 3675 in 1868, 3739 in 1869, and 4118 in 1870, they were only 2798 in 1872, 2900 in 1873, and 2837 in 1874.

Affections of the Respiratory Organs.—While stating that these have not been fatal during the quarter, M. Besnier desires to repeat some observations that he made in former reports concerning deaths from pleurisy, which he does not think have been properly understood. What he wished to say was, that while the number of cases of pleurisy admitted has not sensibly varied since 1867, the mortality from this affection has notably and progressively increased, so as to have become doubled in six years. During the same period it is to be observed that its treatment by thoracentesis has become generalised. There can be no doubt as to the correctness of the figures, but the statistics of the cases need more elaborate dealing with before this increase can be positively referred to the greater prevalence of the operation. There seems reason, indeed, to suspect that, like erysipelas, pleurisy has become a more grave disease in recent times. Several reports from the different hospitals this year show very favourable results to have attended the operation.

Diphtheritic Affections.—The mortality from croup has considerably increased, as it has done for some years past. Thus during the first three months of 1868 there were 55 fatal cases, 66 in 1869, 77 in 1870, 92 in 1872, 99 in 1873, and 121 in 1874. Of 251 children admitted into M. Bergeron's ward at St. Eugénie, 57 (32 girls and 25 boys) were cases of diphtheritic affections. In 19 the diphtheria was localised exclusively in the pharynx, and in 38 the larynx was consecutively invaded. Of the 19 cases, 11 proved fatal and 8 were cured; and M. Bergeron cannot call to mind any epidemic since 1857-58 which has so markedly exhibited the signs of "malignity." Of the 38 cases of croup (20 girls and 18 boys), 28 proved fatal, giving the enormous mortality of 73 per cent. Of the 38 cases, 34 underwent operation. Of the 4 not operated upon, 3 recovered. In the majority of the cases the operation was performed as a matter of urgency on admission in the course of the third stage; and yet, in spite of such unfavourable conditions, it succeeded in 1 case out of 5. In 2 of the recoveries there was fatal relapse after some days. In the most favourable years not more than 1 recovery out of 3 tracheotomies has been obtained at the St. Eugénie. In 8 of the cases the diphtheria was contracted within the hospital. At the Enfants-Malades, M. Roger had 12 cases of croup, in 7 of which tracheotomy was performed with 3 deaths, 2 certain recoveries, and 2 possible ones.

Eruptive Fevers.—Variola has now for a considerable period ceased to exist in the Paris hospitals; and this quarter scarlatina has been relatively rare. Measles, however, has been very prevalent, both in the hospitals and in private practice. At the St. Eugénie, M. Bergeron had 29 cases, of which 9 died—8 from broncho-pneumonia and 1 from gangrene of the vulva. Eight of the cases contracted the disease in the hospital, 5 of them proving fatal.

Mortality of Infants.—Under this heading a communication is inserted from M. Siredy, of the Lariboisière, who states that of 128 infants born during the quarter in that hospital, 58 died—*i.e.*, the enormous mortality of 46 per cent. After abstracting from these 18 infants born dead, there were 23 whose deaths may be attributed to congenital debility, and 17 to choleriform diarrhœa. Among the former may be placed infants born for the most part before time, and weighing less than two kilogrammes. It is not surprising that many of these little beings in this incomplete state of development should die, especially as they cannot receive during the first few days of their precarious existence all the hygienic attentions they require. But another very frequent cause of infantile death has been choleriform diarrhœa, which has continued endemic at the Lariboisière for more than eighteen months, and which seems to attack by preference the most vigorous infants who have apparently been born with the best chances of surviving. M. Siredy recommends that the wards be closed.

The Brussels Vaccine Institution.

Dr. Warlomont, the director of this establishment, which was set on foot for the supply of vaccine lymph from the heifer, gives an interesting account of its working in a paper he has furnished to the *Gazette Hebdomadaire* for May 8. He observes that in a country like England, wherein vaccination is compulsory, and is going on all the year round, the supply of lymph can be far easier kept up than in other countries. In Belgium, for example, where it is optional, a prejudice prevails among the public against vaccinating in winter, so that between April and October the practice is almost at a standstill, and lymph obtained with the greatest difficulty. Also it is very common for mothers to refuse to allow any lymph to be abstracted from the arms of their infants. For these reasons, and also to guard against the possibility of vaccinal syphilis, the Belgian Government established in 1868 the Vaccination Institution in the Brussels Zoological Gardens, being the only national establishment of the kind in existence. The heifers are hired from a butcher, being returned to him at the end of seven days. In ordinary times, two per week suffice, but during the epidemic of 1870-71 at least one was vaccinated daily. From this Institution all applicants receive supplies of lymph gratuitously, and usually by return of post. The extent which it is resorted to may be judged by the fact that 768 practitioners received supplies during the months of June and July of 1873—it being calculated that there are not more than 1000 of the 2000 Belgian practitioners who are engaged in vaccinating. As to the efficacy of the virus, when the subject is vaccinated direct from the heifer, it never fails if the vaccination be carefully performed. From lymph preserved on ivory points there were performed in 1870-71 by thirty-six careful vaccinators 500 vaccinations, with 479 successes—*i.e.*, 96 per cent.; and 5425 revaccinations with 3419 successes, or 62 per cent. As to the preservative effect, it is to be observed that of 10,000 infants vaccinated at Brussels between 1865 and 1870, and who were tested by the fatal epidemic of 1870-71, none have taken small-pox, and the revaccinated have enjoyed a similar immunity. For numerous details as to the procedures best suited to produce these favourable results, we must refer to Dr. Warlomont's paper.

REVIEWS.

Ueber ein neues gefahrloses Verfahren zur Entfernung von Kehlkopfgeschwülsten. Von Dr. Friedreich Fieber. Vienna. 1872.

A New and Safe Method of Removing Laryngeal Growths. By Dr. F. Fieber.

In this *brochure* the author, an electro-therapeutist well known in Vienna, calls attention to the advantages of electrolysis over all other methods for removing tumours of the larynx, especially in the hands of those who have not had much special practice in the manipulations of laryngeal surgery. By electrolysis is meant the chemical decomposition of the tissues composing a tumour by the action of a constant galvanic current, either one or both of whose poles are inserted into it in the form of platinum points. A sort of gangrene

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occurs round the electrodes, followed by slight suppurative inflammation in more circumferential parts, which ends, after a few punctures, in the destruction of the growth. The current produces no general reaction on the body of the patient. It does not appear to be necessary in general to puncture the growth with both poles, but the negative can be applied in the form of a sponge to the outside of the larynx, and the positive or zinc pole connected with the insulated platinum point, which is passed down the larynx, and made to pierce the tumour. A flattened electrode can be used for the superficial electrolysis of growths with a broad base, or of only small dimensions. Dr. Fieber has used from twelve to fifteen of Siemens and Halske's elements (a modification of Daniell's battery) in his operations, and in rare instances as many as twenty. Any constant battery can, however, be used. Long sittings are not required for electrolysis of such small growths as generally occur in the larynx—a few minutes only suffice,—and the patient does not need the same amount of preparation as when cutting instruments have to be used; and this is no small advantage of the method. There are only two real contraindications to its use—(1) excessive size of the tumour, (2) necessity for its very speedy removal in consequence of extreme dyspnœa and other alarming symptoms caused by it. A tumour must, however, be very large indeed which is not suited for electrolysis, for large tumours often yield remarkably quickly to it. In some such cases it is advisable to remove part with the knife or forceps, and then to electrolyse the remainder. Dr. Fieber relates six cases of the successful application of his method. Two to fifteen sittings were required.

The instruments which Dr. Fieber uses are made by Mayer and Wolf, of Vienna. The paper contains a very clear account of the general principles on which electrolysis is based, which might be useful to anyone treating aneurisms by electro-puncture; and the advantages and defects of other different modes of removing laryngeal growths in comparison with electrolysis are fully discussed.

A Popular Description of the Human Eye; with Remarks on the Eyes of Inferior Animals. By W. Whalley, M.R.C.S.E. London: J. and A. Churchill, New Burlington-street. Bradford: T. Brear, Kirkgate. 1874.

The contents of this little volume are not addressed so directly to the medical profession as to the student of general knowledge. The material facts, as the author informs us, have frequently been given in the form of a lecture, devised to illustrate the wondrous power, variety, and perfection of the organ of vision in the various orders of creation. Thus, the first portion treats of the structural analogies and distinctions of the human eye as compared with those of animals; the second, of the structural peculiarities presented by the eyes of inferior animals; and the concluding portion, of the function of vision, retention of visual sensations in health and disease, colour-blindness, absence of vision in certain animals, and development of sight in man and in the lower animals.

The numberless facts which Mr. Whalley has collected in this little treatise are sufficient proof that he is a keen student of comparative anatomy; and the digressions from the strict line originally prescribed for himself by the author—for which, we think, he very unnecessarily apologises—are of such an interesting character that it is a matter of regret to find they are so limited. We trust, indeed, that upon some future occasion Mr. Whalley will find time to give us a larger and more comprehensive work on the subject of natural history, with all the details of which he seems to be so intimately acquainted. Few subjects are of greater interest to the intelligent reader, and Mr. Whalley's knowledge of the peculiar habits and customs of the lower orders of creation will always render his writings acceptable to a very large portion of the community.

We unhesitatingly commend this little volume to the attention of those who have any wish to make themselves acquainted with the various peculiarities and functions of that most important organ of the human body, the eye—more especially as, from the absence of abstruse professional explanations, the whole subject is perfectly comprehensible to the general reader.

The sanitary condition of the Derbyshire County Lunatic Asylum appears by the twenty-second annual report to have been good throughout the last year, there having been no epidemic, infectious, or contagious disease.

PROVINCIAL CORRESPONDENCE.

IRELAND.

Dublin, May 27.

The Annual Elections at the Royal College of Surgeons—The Royal Medical Benevolent Fund Society—The Public Health (Ireland) Bill—Dispensary Medical Officers and the Fixing of their Salaries by Boards of Guardians.

The approaching annual elections at the Royal College of Surgeons are causing a great deal of excitement in Irish medical circles at present. They are to take place, according to custom, on the first Monday in June (next Monday). It is anticipated that the contest for the Vice-Presidency will be extremely close on this occasion, each of the candidates—Dr. Edward Hamilton, Surgeon to Steevens's Hospital, and Dr. E. Dillon Mapother, Surgeon to St. Vincent's Hospital—having a large following amongst the Fellows. It is further expected that the present difference of opinion on the subject of a conjoint examination for Ireland, existing between the Council of the College and a majority of the outside Fellows, will materially influence the coming election for members of Council. If the present Council fall, their steady adherence to the principle of a conjoint examination, in the face of much opposition (and it may be added, temptation to betray that principle), will secure them universal respect.

The thirty-second annual meeting of the Royal Medical Benevolent Fund Society of Ireland is to be held on Monday next, in the Hall of the College of Physicians, at four o'clock. The chair will be taken by Dr. James F. Duncan, President of the College. The meeting is held in alternate years at the Colleges of Surgeons and of Physicians, both branches of the profession thus manifesting a special interest in the fortunes of this most estimable association.

Sir M. Hicks Beach's Public Health Bill is the great topic of the day here. As you justly remarked last week, in your comments on the measure, there are many excellent clauses contained in it. Naturally, the profession are most interested in Clause 10, which provides that the district health officers shall be the dispensary medical officers, that they shall be paid a salary to be determined by the Local Government Board, and that, if deemed advisable, superintendent (medical) officers of health shall be appointed. You are already aware that a Conjoint Committee had been nominated to consider the Bill and to report upon it, and that this admirable movement had been taken part in by the Colleges of Physicians and of Surgeons, the Irish Medical and Irish Poor-law Medical Officers' Associations, and the Sanitary Associations of Dublin, Cork, and Waterford. Delegates from all these bodies have since met, and discussed the Bill at length. I am happy to say that the utmost unanimity existed with regard to all essential points requiring alteration or amendment. Thus, the insertion of the word "medical" in Clause 10, as suggested in last week's *Medical Times and Gazette*, was considered indispensable; also the formation of a medical department of the Local Government Board, and the amendment of the clauses (2, 3, and 5) relating to the establishment of urban and rural sanitary districts. With respect to this, two propositions were received with favour: the first, that only rural districts should be organised in the first instance, urban areas being subsequently created by provisional order of the Local Government Board in the case of large towns like Dublin, Belfast, Cork, etc. The second proposition was, perhaps, a still better one—namely, that only rural districts should be constituted under the Act, but that certain towns should be mentioned by name as urban districts *ipso facto*. This alternative would obviate, on the one hand, the absurdity of constituting 113 urban districts, as at present proposed, the majority of which would have insignificant populations; and, on the other, the necessity for setting the cumbrous machinery of petition, provisional order, and Act of Parliament in motion for creating a few urban districts after the Bill has become law. The most comprehensive consideration of the measure has been made by the College of Physicians, and so deep is the interest taken in it by this body on behalf of the public as well as of the profession, that it has been resolved to send a deputation to London, to wait on Sir M. Beach prior to the committing of the Bill. It is not unlikely that the other co-operating bodies will follow this example, and send a joint deputation to represent their views to the Chief Secretary.

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In your article on the Bill last week, attention was drawn to the admirable provision in Clause 10, whereby the fixing of the salary of the district medical health officer will not be entrusted to the local authorities, but will be arranged by the Local Government Board. It is sincerely to be hoped that this principle will at once be extended to the fixing of the salaries of the dispensary medical officers throughout the country. The dispensary committees and boards of guardians grumble as much over a paltry increase of the salary of their medical officers as the British ratepayer would over an income-tax at 2s. 6d. in the pound. A notable illustration of this has occurred within the last few days in the Tullamore Union, King's County. It was proposed to raise the salary paid to Dr. Ridley as Medical Officer of the Dispensary at Tullamore, from £100 to £120 a year. It was shown by the gentleman who proposed the increase that the district of which Dr. Ridley had charge was a very large one, being twelve miles long by eleven broad, containing an area of 33,196 acres, with a population of 20,286. The number of patients treated by him at the Dispensary during the last twelve months was 1412, and the number of patients visited and attended by him at their homes in the same period 236. And it was proved from the report of the Local Government Board that the number of new cases treated by Dr. Ridley during last year at the Dispensary exceeded those at all the other dispensaries in the union taken together, they being only 1343. Dr. Ridley "had been twenty-three years in office, and had invariably performed his duties with the greatest courtesy and ability." One would have supposed that in the face of these facts no opposition would have been made to the proposed increase of salary. But the Tullamore Board of Guardians thought otherwise. In moving an amendment, Mr. Costelloe said that while "no member of the Board had more respect for Dr. Ridley, or valued his services higher than he did, he considered the statistics offered only went to show that the salaries of the other dispensary doctors of the Union had the same right to be increased as that of Dr. Ridley," who, forsooth, had "an extensive private practice." Mr. Michael Kane, in moving another amendment to the effect that "the salary be not increased," said that he also "had the greatest respect for Dr. Ridley, but in discharging a public duty he forgot all private feelings" (noble man!), and he considered it "not fair to impose an additional tax on the ratepayers." I may add that this additional tax would have amounted to the sum of exactly *one farthing* per annum per head of the population! Suffice it to say that Mr. Kane's amendment was ultimately declared carried by sixteen to eight. Mr. Costelloe's objection to the original motion is extraordinarily candid: he refused to do justice to Dr. Ridley, because he would then have to do justice to some six or eight other medical men. This beats Mr. Kane's anxiety for the ratepayers' pockets. *Meliora speramus.*

BIRMINGHAM.

May 23.

SMALL-POX ON THE INCREASE—VISIT OF GOVERNMENT INSPECTOR—PROPOSED SPECIAL HOSPITAL FOR INFECTIOUS DISEASES—QUEEN'S HOSPITAL IN DEBT—NEW DEPARTMENT IN THE SAME INSTITUTION—HEROIC PROCEEDING IN A CASE OF SUFFOCATION.

SMALL-POX is decidedly on the increase, new cases occurring daily—setting at defiance all the active measures which have been taken by the sanitary officials to arrest its progress. The mortality from it, too, has been startlingly high. The Medical Officer of Health has done his utmost, by wise counsels and judicious instructions, to try to limit and mitigate the disease; and the Public Vaccinator, also, with his usual energy and vigilance, continues to perform his protective functions,—all without avail, for still the infection spreads, until the public has become really alarmed, and the necessity has arisen for the Government Board to send down Dr. Buchanan, one of their inspectors, to inquire into the causes which have produced and kept up the epidemic. The question has naturally been asked, Has all been done to check this loathsome disease? The measures which have been adopted for this purpose do not appear to be strong enough to cope with the evil—such as isolation, the present system of vaccination, etc. Some of the cases are removed to the small-pox wards at the workhouse, where separation is strictly observed, but in many instances in which the sufferers object to removal, mainly on the ground of repugnance to parochial association, isolation is necessarily very imperfectly effected. The Town Council, to overcome this objection and to provide more accommodation for this class of cases, have decided to maintain a special hospital for infectious diseases: this will supply a want long felt by the town. But in their anxiety, however, to get a building quickly they were nearly permitting their zeal to outrun their discretion, for they had fixed on a large house at Spring-hill—a respectable and populous part of the town—and would have bought it had it not been for the strong opposition of the inhabitants, backed up by the profession, who looked upon such a site as a centre for the propagation of the disease. In the selection of the locality for the contemplated hospital, we hope the Council will be guided by the following suggestions, which we offer to them:—Let the building be on some spot on high ground, in a dry situation, and at a good and safe distance from the town, so that separation can be really and thoroughly secured.

The ophthalmic department of the Queen's Hospital has been reopened after having been closed for several years. It is a pity it was ever shut, for by this time it would have been in full working order and in a flourishing state. This excellent institution is still in need of funds—in fact, it is in debt to the tune of £8000, incurred in the erection of the superadded buildings. An earnest appeal has been made to the benevolent and charitably disposed for subscriptions, and from the handsome sums which have already been promised there is every reason to think that the amount will soon be obtained, and so for once (and may it be for a long time) place the establishment in an unfettered position.

We heard of a remarkable case of impending suffocation the other day, and the treatment was still more singular; it occurred in the practice of a *confrère*. A lady, who had the peculiar and dangerous habit when at meals of half-choking herself, whilst dining was seized with her usual fit, to relieve which she first of all pushed her fingers into her throat, and finding this not to succeed, she at once seized her husband's walking-stick and thrust it right down her throat along the œsophagus, and thus got rid of her obstruction. Her temerity with this novel and unique probang was, however, attended with serious results in the shape of lacerations and contusion of the gullet, which will make her a chronic invalid.

GENERAL CORRESPONDENCE.

THE AMMONIA TREATMENT OF SNAKE-POISONING.

LETTER FROM DR. J. FAYRER.

[To the Editor of the Medical Times and Gazette.]

SIR,—I have heard from Dr. J. Ewart and Mr. Vincent Richards that they have recently received a number of tiger snakes (*Hoplocephalus curtus*, I believe) from Melbourne. They apparently are indebted to Dr. Halford for the snakes, which all (twelve in number) arrived in Calcutta in good condition. Dr. Ewart says—"They are ferocious little animals. We have already done nine experiments. The results decidedly opposed to the utility of ammonia so far. One-tenth of a grain of the poison killed a very large and powerful dog in twenty-three hours, notwithstanding the intravenous injection of ammonia. They seem to shed very little poison at a time; but in given quantities it seems quite as mortal as cobra poison. We are going to have them fed, and collect as much poison as we can; but at present about a minim is all that can be got at one time into the shell. Some of it is yellow; other specimens transparent. We will also have it analysed."

Mr. Richards says—"They are very active, and secrete considerably less poison than the cobra. As far as I can make out yet, the virus, quantity for quantity, is little less poisonous than that of the cobra. The symptoms are precisely the same as those of cobra-poisoning. We are now doing our sixth experiment, as we want to find out the strength of the poison, and what amount is secreted, or rather expelled, at one bite. We have only injected ammonia in two cases, but they were both unsuccessful. The first was a dog weighing 17 lbs., which was bitten. Sixty minims of liq. ammoniæ were injected; it died in one hour and forty-two minutes. The other we are now doing. We injected half a grain of the poison, and have injected eighty minims of ammonia, and the dog, weighing 34 lbs., is dying. The blood of the dogs remains fluid."

Such, so far, are the results of the use of ammonia in

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animals bitten by the Australian tiger snake when experimented with in India.

The subject will be further investigated by these gentlemen, who are so admirably qualified to conduct the inquiry, and the results will be made known. It would be premature, therefore, to say more at present than that science is as much indebted to Professor Halford for thus enabling the committee in Calcutta to compare the actions of the Australian and the Indian snake poison, as it already is to him for his previous investigations of this difficult subject—one which it is to be hoped will now, by the combined investigations of observers in different parts of the world, be still further elucidated.

London, March 16. I am, &c., J. Fayrer.

POISONING BY SYRUP OF CHLORAL.

Letter from Dr. J. M. Winn.

[To the Editor of the Medical Times and Gazette.]

Sir,—Some weeks since I drew the attention of the public to the dangerous practice which is now prevalent (I allude to the unrestricted sale of syrup of chloral), and I mentioned a case of poisoning which had come under my own notice. Since then another case has been reported which proved fatal. It is high time that the Legislature should interfere to protect the public by rendering it imperative that druggists should label bottles containing syrup of chloral, "Poison." This caution is still more necessary for chlorodyne, a drug equal in potency to laudanum; but here the stamp-duty steps in, and legalises the sale of poison. When is this odious tax to be abolished?

Harley-street, May 8. I am, &c., J. M. Winn, M.D.

REPORTS OF SOCIETIES.

THE PATHOLOGICAL SOCIETY.

Tuesday, May 5.

Thomas B. Peacock, M.D., in the Chair.

The report of the Morbid Growth Committee on Mr. Howard Marsh's specimen of Sarcomatous Growths from the Bladder and Vagina of a child, exhibited at the meeting on February 3, was read. The mucous lining of the bladder and vagina presented numerous soft polypous growths, and the septum between them was thickened. The wall of the bladder was greatly thickened, including the muscular coat, and all the tissues seemed to be hypertrophied. The larger polypi from the bladder were found to be mainly composed of connective tissue, cellular at the free extremity, and becoming more and more fibrillar towards the attached base. There were numerous bloodvessels. No epithelium was found on the surface of the polypi, but in the hollows between the smaller ones there was epithelium of a columnar shape. The vaginal growths differed from the preceding in containing many spindle cells in layers, which, however, passed on one side into round cells, and on the other into fibrils. On the whole, the condition might be regarded as an overgrowth of the normal tissues, no new growth being present.

Dr. Wickham Legg related a case of Xanthelasma Multiplex in a woman who had been jaundiced two months. Spots of the disease existed on the eyebrows, elbows, and other parts of the surface, and on some of the mucous membranes. The woman passed a hard substance by stool, with relief of the jaundice. One spot was cut across, and bled profusely. Dr. Legg said, in reference to a case of Virchow's mentioned by Dr. Hilton Fagge at a previous meeting, that there was no icterus along with the xanthelasma, and that this observation showed that there was no necessary connexion of the two diseases.

Dr. Legg also exhibited a specimen of Sarcoma of the Stomach from the body of a girl, aged seventeen, who was admitted moribund into St. Bartholomew's Hospital. Post-mortem a growth was found in the stomach, spreading to the liver and omentum. The pyloric half of the stomach was found, on being opened, to be involved in a new growth which was ulcerated superficially, and abruptly limited at the pylorus. The new growth consisted chiefly of round cells embedded in a matrix which was mainly granular, but showed a tendency to fibrillation: the nuclei were various in number. The disease was therefore probably sarcomatous. This was perhaps the youngest case on record of malignant disease of the pylorus.

Mr. Howard Marsh showed a specimen of Hydatids of the Spermatic Cord. The patient died of another disease, and a tumour as large as a hen's egg, which existed on either spermatic cord, and which had been considered hydrocele of the cord, was found to be a true hydatid. The case was interesting, as hydatids had probably never been seen before in this situation.

To a question of Dr. Cayley's, whether there was any hernia present, Mr. Marsh replied that there was a trace on one side, but certainly none on the other.

Mr. Nunn exhibited a Tumour which was attached to the Cervical Vertebræ. It was removed post-mortem from the body of a gentleman, aged seventy-three, who had presented a tumour on the left side of his neck for twenty years. At the end of this time it appeared as a highly elastic swelling. There was paralysis agitans of the corresponding arm, and the patient gave a history of right facial paralysis, commencing twenty-four years before. Post-mortem the tumour was found attached to the transverse processes of the cervical vertebræ, and involving the upper cord of the brachial plexus; it was probably a spindle-celled sarcoma. (Referred to the Morbid Growth Committee.)

Mr. McCarthy showed a specimen of Ulcer of the Duodenum from a case of death by burning. The subject was a child who was burned over the chest and abdomen. The ulcer existed below the margin of the pylorus, and there was another beside it. The duodenal wall was perforated, but adhesion had prevented escape of the intestinal contents. The case was a rare one; no such specimen had been exhibited at this Society since the publication of the sixth volume of the *Transactions*.

Dr. Cayley asked whether the original seat of the ulceration could be discovered?

Mr. McCarthy replied in the negative; all the coats had been completely eaten away. In another case which he had examined, Brunner's glands were found enlarged, resembling boiled sago. In the present instance the mischief was too advanced.

In answer to a question by the President, Mr. McCarthy added that the child was under ten years of age.

Dr. Dickinson, of Liverpool, exhibited a specimen of Ovarian Tumour from a child ten years of age. The child was admitted into hospital in October last with a history of having first felt pain in the lower part of the belly twelve months previously; soon after, a swelling as large as an egg had been discovered; and from this size to that of an apple it had slowly grown during the next six months, while the pain persisted. From that time until admission the tumour had rapidly increased in size. When first examined, the abdomen measured twenty-five inches in girth; the diagnosis was difficult, as dulness extended from the liver continuously downwards to the pelvis in front. The child having been removed from the hospital, was not seen between December and March, at which latter date she was re-admitted with the abdomen still larger and very tender. She died early in April, all surgical interference having been strictly forbidden. Post-mortem the abdominal cavity contained fluid, and the omentum and mesentery were found secondarily infiltrated. The pelvis contained a cyst with firm fibrous walls, connected with the right ovary. It was composed of loculi with various contents—colloid matter, sebaceous-like matter, hair, cartilage, etc. The other viscera were healthy; there was no other secondary deposit.

In reply to a question by Dr. Heywood Smith, Dr. Dickinson stated that the child had never menstruated.

Dr. Hare inquired whether anything like skin was found on the part from which the hairs grew.

Dr. Dickinson replied that the hairs did not appear to be attached to anything, and that they were so very fine that they were hardly visible to the naked eye. (Referred to the Morbid Growth Committee.)

Mr. Norton showed a specimen of Syphilitic Gummatous Tumour of the Larynx. The aryteno-epiglottidean folds were involved, and the disease extended into the pharynx. The larynx was ulcerated, and an abscess due to suppuration of a gumma occurred at another part. The patient died on admission, without a laryngoscopical examination being possible. Tracheotomy would probably have saved the life. In two similar cases this operation had been done with success.

Dr. Leared showed a specimen of Bothriocephalus Latus, passed by an officer who had been in the Red River Expedition. The parasite was expelled by kamela; it measured twenty feet, and, although the head was not found, the neck was, and probably the whole worm had been cast off. The patient had

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eaten much fresh-water fish imperfectly cooked. In connexion with this case, Dr. Leared showed a specimen of false tapeworm in the shape of a portion of the fibrous coat of an artery, passed by stool.

Mr. Fletcher Beach showed a specimen of a Bladder with a Pouch communicating with a Third Ureter in a child. The patient had been healthy until six weeks before she was seen, when dysuria, with straining, retention, and passage of a "thick humour" came on. Nothing could be felt with the sound. Death soon followed. Post-mortem the bladder contained a puriform fluid; at its base was found an opening into a small pouch with similar contents, and on the side of this was a hole which communicated with the right kidney. This was a third ureter. The left kidney was normal.

Mr. Beach also exhibited a specimen of Brain, Heart, and Trachea, showing Absence of Thyroid Gland, in a Cretin, a child of two years and four months, who was a patient in the Ormond-street Hospital. There was no history of syphilis or drunkenness either on the father's or on the mother's side, or of difficulty in the birth. The child had kept the mouth open and the tongue protruded from birth. About twelve months of age the body and legs ceased growing. A younger child was healthy. There was lime in the water drunk. On admission, the child's head was large, the sutures united, the arch of the palate was not high, the tongue protruded, and the lips were thick; a soft swelling existed on either side of the neck; the bones of the limbs were somewhat curved; the belly was large; the skin loose; the urine was passed in bed; at the apex of the heart there was a loud blowing murmur. The child, which cried constantly, measured only twenty-two and a half inches in height, had no idea of self-support, and was very weak. It died several months after, of diarrhœa. Post-mortem no thyroid gland could be found, and no swelling at the side of the neck. The foramen ovale remained open. The brain weighed only twenty and a half ounces. There was no fluid in the ventricles, but some under the arachnoid; no softening. The average weight of the brain in children of this age has been found at Ormond-street to be thirty ounces. Dr. Hilton Fagge had written on similar cases.

Dr. Langdon Down did not consider that the cases of sporadic cretinism in England should be taken with the typical cases occurring in Piedmont and the valleys of the Alps. All the sporadic English cases differed from these in becoming dwarfed during the first dentition, and they resembled each other so much in mental and moral attributes that a more common cause than the character of the drinking water must be found. He had examined many cases from different parts of England, and he had ventured to maintain that the cause of the disease was either alcoholic intoxication of the parents at the moment of conception, or chronic alcoholism on their part. He had not himself made a post-mortem examination of any case.

Dr. Ballard asked whether there was a history in this case of persistent diarrhœa in the first period of life, which would cause arrest of development? He repudiated the theories of alcohol and lime as causes of this disease.

Dr. Ellis remarked that alcohol addressed itself to the nervous system, and referred to cases of cretins begotten during intoxication.

Mr. Morrant Baker inquired of Dr. Down whether he had always found the thyroid gland absent in these cases? He had himself seen it well developed in one case.

Dr. Down replied that in some of the cases he had found it small. In all his cases the peculiar supra-clavicular swellings existed—they were simply masses of areolar tissue.

Dr. Leared referred to the inheritance of insanity, and drew a parallel between this fact and the theory stated by Dr. Down.

Mr. Beach, in reply, repeated the facts about the character of the parents. The child had not suffered from diarrhœa.

Mr. Godlee brought forward a case of Melanotic Sarcoma affecting various organs. The subject was a labourer of fifty-eight, who had no special history, except that he had had a sore in front of his leg for twelve months. When first seen he had a tumour in Scarpa's triangle of the right side, and a second smaller on the opposite thigh. The tumour presented no tenderness or sign of aneurism; the glands were slightly enlarged. The left arm felt somewhat numb and weak. On removal, the tumour was found adhering to the fascia lata, and prolonged upwards as an enlarged gland: it was as large as an orange, of a dark glistening appearance, with an area of white on section. Twelve days after the operation the patient became intoxicated with wine which had been smuggled into the hospital, was very violent, thereafter passed into a semi-comatose state, and died on the fourteenth day from the removal of the tumour. Post-mortem, secondary deposits were found abundantly throughout the body. In the brain there were two larger and six small tumours, including one in the medulla, which was central but inclined to the right. In the heart there were two tumours, and in the lungs numerous melanotic masses. The intestine presented numerous black spots and ulcers. The supra-renal capsules were also affected, as well as the glands in the left groin and the subcutaneous and sub-peritoneal tissues. The subcutaneous masses were composed of round and spindle-shaped sarcomatous cells. A scraping of the glands showed oat-shaped pigmented cells and lymphoid cells; and a section of a cerebral tumour presented spindle-cells along the line of the small vessels, the new growth being in the perivascular spaces. In the heart the growth corresponded in distribution with the muscular bundles; it might have commenced in the cells of the sarcolemma. The growth in the lungs was also very interesting.

Dr. Peacock exhibited three specimens. The first was one of Rupture of the Internal Coats of the Aorta, and Separation of the Coats (the so-called dissecting aneurism). The patient, a male, aged sixty-one, was suddenly seized, after getting on to the top of an omnibus, with pain in the region of the heart, difficulty of breathing, and faintness. He came immediately to St. Thomas's Hospital, and walked upstairs into the ward. When admitted, at 5.30 in the afternoon, he still complained of pain in the heart and loins; had very laboured breathing, and was very faint. The symptoms continued much the same until 10.15 p.m., when the patient suddenly died. On post-mortem examination, there was found a laceration of the internal and part of the middle coat of the aorta, immediately below the commencement of the descending portion of the arch; and from this point the layers of the middle coat were partially separated up to the origin of the aorta and down to the common iliac arteries. There was much blood in the mediastinum, and about five pounds of blood and coagulum in the left pleural cavity. Dr. Peacock said that the specimen afforded a good example of the so-called "dissecting aneurism" in its second stage. Of seventy-three cases collected in vol. xiv. of the *Transactions*, in eight the seat of the primary laceration was the same as in this case, and in one of these the separation of the coats was equally extensive. In two also of the eight cases the fatal event was brought about, as in this instance, by the escape of blood into the left pleural cavity. The first symptoms doubtless indicated the time at which the internal laceration took place, and the fatal event the period of rupture into the pleural cavity.

The second specimen was one of Perforation of the Small Intestine, probably in a case of typhoid fever. The patient, a male, aged seventeen, was admitted into St. Thomas's Hospital, after having been ill with symptoms of fever, with pain in the abdomen and sickness, for four days. On admission he was somewhat excited, and soon after became violently delirious. In two days he was quieter, but after about two days more, the motions, which had previously been confined, became much relaxed and involuntary. The diarrhœa continued till the last, and about six days before death the abdomen became very tumid and tense, the breathing hurried, and the temperature very high. The patient died on the twenty-first day of illness. There had never been any eruption. On post-mortem examination, a perforation was found at between two and three feet from the lower end of the ileum, and there was extensive peritonitis. The solitary and agminated glands appeared healthy everywhere except at the seat of perforation, where there was a small ulcer, and immediately above the ileo-cæcal valve, where two of the patches were conspicuous, and the mucous membrane over them was reddened and superficially abraded. If the case was to be regarded as one of typhoid fever, the amount of intestinal disease was certainly very slight, and it was remarkable that perforation should have occurred in a portion of the bowel which was otherwise quite healthy. There was, however, a very similar case recorded by Chomel, and the most probable explanation was that it was a case of typhoid.

The third specimen was one of Imperfect Development or Obliteration of the Pulmonary Artery, from a child of ten months, which had been markedly cyanotic and subject to fits from its birth. The heart, which was large, consisted almost entirely of one auricle, ventricle, and artery. The first cavity, or right auricle, was large, and received as usual the two venæ

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cavæ. It opened into the right ventricle, and communicated also by an imperfectly closed foramen ovale with another small cavity—the representative of the left auricle,—into which the pulmonary veins entered. The right ventricle was very large, its walls thick and firm, and from it the single artery—the aorta—arose. It also communicated with a small cavity in its walls, into which the rudimentary left auricle opened, and which represented the left ventricle. The aorta was large, and gave off soon after its origin on its left side the ductus arteriosus, and then on the opposite side the innominate artery. The ductus arteriosus was very small; it opened into the pulmonary branches, and the trunk of the pulmonary artery was pervious for a short distance from the bifurcation towards the ventricle, the remaining portion being represented by a small fibrous cord attached to the left side of the aorta. The amount of blood transmitted to the lungs through the ductus arteriosus and pulmonary branches must have been very small, but it was possible there may have been some compensatory supply through the aorta or some of its branches.

OBSTETRICAL SOCIETY OF LONDON.

WEDNESDAY, MAY 6.

E. J. TILT, M.D., President, in the Chair.

THE following gentlemen were elected Fellows of the Society:—Alfred Lewis Galabin, M.D.; Alfred Boyd Hopkins, M.R.C.S.; George Alexander Simpson, M.D.; and Reuben T. Warn, M.R.C.S.

The report by Dr. Savage and Dr. Routh on Dr. Willing's specimen was read. The fœtus was eleven inches long; nails well formed; skin pale red; hair on scalp dark in colour; cerebral convolutions and valvulæ conniventes well developed; meconium in the intestines; lungs, with heart attached, and also in pieces, floated freely in water; heart well formed; uterus, ovaries, and vagina well formed; eyelids non-adherent, iris well developed, pupil moderate in size, no membrana pupillaris. The age of this fœtus was believed to be between six and seven months.

The PRESIDENT called attention to the point of interest in this case—viz., that a child apparently only five months and a half old had cried lustily and lived forty-four hours. The report did not confirm this—the age being nearer seven than five months.

Dr. J. HALL DAVIS exhibited a series of Tapering Metallic Tubular Specula, manufactured by Arnold after Dr. Davis's design. The instrument has a trumpet-shaped external opening, the width of the speculum gradually diminishing from this to its smaller uterine aperture. The tube is suitably bevelled off at its uterine end, the edges are carefully rounded, and when the instrument is accurately made no groove exists where secretions could lodge. It is made in three most useful sizes, and produced in two combinations of metals—viz., one nickel-plated on copper and one silver-plated on copper, and this latter, as a defence against the action of nitrate of silver, is electro-gilt also for two inches of its uterine end. The advantage this speculum presents over Fergusson's glass silvered speculum is its non-fragility and its tapering form. The lengths vary from five inches and three-quarters in the largest to five inches and one-eighth in the smallest. The diameters of the outer opening are two inches and two-thirds in the largest and two inches and one-third in the smallest. It need be replated only at long intervals at small cost.

Dr. ROUTH thought that one disadvantage of it would be that it would tarnish readily, and would not resist the action of nitric acid, bromine, acid pernitrate of mercury, etc.

Dr. DAVIS, however, replied that this disadvantage did not exist in reality.

Dr. H. SMITH objected to the metal being turned inwards at the vaginal end, as it formed a gutter in which discharges would lodge. This would prove a great disadvantage in hospital practice, and might prove a source of infection from one patient to another.

Dr. CLEMENT GODSON exhibited a specimen of Twin Abortion, in which one embryo, five inches long, was much emaciated, and the other presented no trace of head or upper extremity. Though apparently of no more than three months' development, they were not expelled from the uterus until five months and a half after impregnation. There had been no opportunity of examining the placenta. In Dr. Martin's atlas a monstrosity very similar to this was figured. He thought it an interesting question whether the development of the head and upper extremity had been suddenly arrested, or whether they had become absorbed during the time which had elapsed between the cessation of vitality and the expulsion from the uterus.

Dr. JOHN WILLIAMS remarked that the appearances presented by the upper surface of the trunk of the acephalous fœtus seemed to point to amputation as the cause of the malformation. Near the posterior margin of this surface, and in the situation of the spinal column, is a small, hard, firm projection. This appears to be continuous below with the vertebral column, and is probably the amputated extremity of it, which has remained uncovered by soft tissue. The posterior margin of this surface is somewhat raised and round, and presents much the same appearances as are found at the margin of a recently healed wound.

Dr. Godson and Dr. John Williams were requested to draw up a further report.

Dr. BARNES exhibited for W. Kesteven, jun., the Upper Portion of the Trunk and Head of a Fœtus, where the arm, face, and a foot had presented. The right hand and arm were projecting from the vagina, the left being immediately within, and between them the face, presenting posteriorly; and between the pubis and the chin the left foot could be felt. Whilst preparing to turn, the child was suddenly expelled, dead. This was explained by the fact of the total deficiency of the occipital bone. Extending backwards from the head was a large soft bag, consisting of the scalp, the meninges, and the brain. Dr. Barnes remarked that the chief point in this case was the difficulty in making a diagnosis, on account of the bag supplementing the head.

Dr. H. SMITH suggested that a further report on the specimen should be presented to the Society.

The PRESIDENT requested Dr. John Williams and Dr. Godson to do so.

Dr. J. C. HAYES exhibited a Carcinomatous Tumour, originating, he thought, in the broad ligament, which, according to some anatomists, was properly recognised as an expansion of the uterus. The patient, aged between thirty and forty, was admitted in a very emaciated condition—almost moribund. No history was obtained. Post-mortem, an irregular semi-elastic tumour, somewhat larger than the fœtal head at term, was found in the right iliac fossa. The bony tissue as far back as the vertebræ was superficially infiltrated with the morbid growth, which extended up between the layers of the broad ligament to within a short distance from the uterus and the ovary. These were quite intact; and the pelvic, lumbar, and inguinal glands were only slightly enlarged, without being diseased. The microscopic appearances of the tumour were those of medullary cancer.

The PRESIDENT inquired in what way was the bone involved.

Dr. BARNES asked if there was any evidence of cancer in the other organs.

Dr. SAVAGE thought there was no reasonable objection to the view taken as to the cellular origin of the tumour, cancer being the offspring of cellular tissue or its allies. But might not the tumour have commenced in the bone? The uterus appeared to be free, adherent, but not involved. What was the state of the bony surface to which it so firmly adhered? Was it simply denuded, absorbed away by the pressure, or actually involved? The broad ligament considered as a uterine prolongation or offshoot was an idea of Rouget's which was abandoned long ago. One might as well call the mesentery a prolongation or offshoot of the intestines. Scarcely any smooth muscle exists in the anterior layer—only in the posterior layer of the broad ligament is it found. The fibres near and about the ovary are supposed by Virchow to possess a sort of corrugating function, not dissimilar from that performed by the dartos. There are no muscular fibres in the alar ligaments. The question of gastrotomy in these cases was worth considering.

Dr. HAYES explained that the bone presented the appearance of caries, being honeycombed.

Dr. SQUAREY had seen cancer originating in the glands, and extending to the broad ligament.

The PRESIDENT requested Dr. H. Smith and Dr. Squarey to report upon it.

Dr. E. COPEMAN, of Norwich, read a paper, "On Statistical and Practical Remarks on Consultation Midwifery in Private Practice," limiting his remarks to consultation cases only, most of them being of an unusually severe or complicated character. The total number amounted to 216, of which 198 recovered, 18 died—a proportion of deaths to cases of 1 in 12.

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There were 14 cases of craniotomy, 1 death; 10 of convulsions, 1 death; 78 cases where the vectis was employed, no deaths; 23 of version, 5 deaths; 6 of forceps, no death; 12 of placenta prævia, 1 death; 7 of previous separation of placenta, 2 deaths; 19 of retained or adherent placenta, 1 death; 28 of post-partum hæmorrhage, 1 death; 7 cases of twins, 1 maternal death; 2 of ruptured uterus, 2 deaths. Craniotomy may be regarded as a safe operation if not too long delayed. The crotchet he regards as a more or less dangerous instrument, and often very ineffective for accomplishing the object for which it is employed; he prefers the blunt hook. Twelve of the version cases were performed on account of placenta prævia. The vectis he looks upon as a most valuable and efficient instrument, succeeding even where forceps had failed, being easier of application than the forceps, less formidable in appearance to the attendants as well as to the patient, and very seldom occasioning rupture of the perineum or injury to the maternal soft parts.

Dr. Barnes remarked that the great and only fault of the paper was its extreme brevity. It scarcely afforded scope for discussion, as the conditions necessitating treatment were not given. There were two points worth noting: his preference for the vectis over the forceps; and, secondly, that there were two deaths from hæmorrhage. This ought never to happen, if local treatment were regarded as the necessary complement to other remedies and used at the proper time. The vectis was a lever and must remain so; it cannot be, strictly speaking, a tractor. We may get the head down by pressing against the pubes. However it could be substituted for the long forceps he could not understand, unless the handles were pushed into the vagina. When the head was in the pelvis anything would do to effect delivery, uterine action being set up by the irritation of interference, and the head being expelled. No tractile force was required, mere dislodgment of the head from an improper position being all that was requisite, and labour went on at once. The vectis may do as well as the forceps in some cases where there is a want of adaptation of the head to the pelvis; but the vectis can accomplish less than the forceps—the latter being far better in most cases.

Dr. Savage would have been glad to have heard more about the treatment of convulsions, but nothing was said in the paper. The results seemed unusually satisfactory. It was a pity the treatment was not given.

Dr. Edis thought that in the cases given the vectis had been resorted to where ordinarily forceps would have been applied by most practitioners; and, indeed, the sooner forceps came to be considered as aids to labour, supplementing defective uterine expulsion by traction, in place of their application being looked upon as a formidable operation to be avoided as long as possible, the better for everyone concerned. Dr. Hamilton, of Falkirk, had shown that the forceps may be used not only with impunity, but with manifest advantage in numbers of instances, where even now patients are allowed to exhaust their powers and expend their strength in fruitless efforts to overcome a difficulty that the forceps would remedy in a few minutes. Craniotomy would hardly be justified until forceps had been tried.

Dr. Hayes thought that the vectis lacks compressing force; it can only change the direction of the head. It was a question whether craniotomy had not been performed in cases where a timely application of the forceps might have obviated the necessity. Statistics without details were practically useless.

Dr. Wiltshire presented to the notice of the society a vectis procured from Dr. Copeman's instrument maker at Norwich. He (Dr. Wiltshire) stated that he had gathered from Dr. Copeman's book that he regarded the instrument strictly as a tractor and not as a lever. It was evidently a favourite with Dr. Copeman, as shown by the large number of cases in which he had used it, and probably in his hands was more efficient and safer than it was likely to be in those of others. The edges seemed very sharp.

Dr. Bassett, of Birmingham, read a paper, "On the Propriety of administering Iron during Pregnancy, as a Preventive of Post-partum Hæmorrhage." Regarding pregnancy as nature's highest physiological work, and one that ought to go on without trespassing on the domain of pathology, he had been led to observe that those who had severe floodings during labour were uniformly out of health, weak, dyspeptic, nervous, listless, and evincing an aversion to animal food. The tone of the muscular system was impaired, and the blood in a watery condition—leading to irregular or feeble contraction of the uterus and hæmorrhage as a consequence. Iron in these cases had proved, in his experience, of great service in preventing post-partum hæmorrhage, combined with potash where the urine was defective, or with soda if the liver seemed to be sluggish and the skin sallow, or with hydrochloric acid if the digestion was weak.

Dr. Barnes asked if any of the Fellows had ever seen any reason to suppose that premature labour had been caused by the administration of iron? He thought we had not sufficiently ascertained the changes and diminution of vital force induced by pregnancy. A series of changes of a most important kind occurred, and if we only understood these we might preserve our patients from the consequences. As a rule, pregnant women did not place themselves under treatment. He alluded to an instance where a pupil of his had given iron to a pregnant woman, and he was in consequence accused of intending to produce abortion. Dr. Barnes himself had given it in dozens of cases, and had never witnessed any ill consequences, or instances in which abortion could be traced to its administration. He thought iron might safely be given where anæmia was present during pregnancy, to improve the patient's condition, and lessen the risk of hæmorrhage during parturition.

Dr. Saboia, of Rio Janeiro, read a paper, "On a New Method of Operating for Conical Cervix and Contracted Os Uteri." A silver suture was passed completely through the cervix, the wire was drawn out by means of forceps from the os uteri, divided, and the ends tied on either side, and allowed to work their way out, the wire being twisted, and so tightened, every eight days; it remained in one month, when the remaining tissues were divided by means of a bistoury.

Dr. Tilt thought that division would have been better in the ordinary way, the risk being less and the advantage greater.

Dr. Edis concurred with the President that it was hardly worth while making such a tedious operation—extending over a month—when it might have been done equally well and more satisfactorily in a few minutes by a slight incision.

SOCIETY OF MEDICAL OFFICERS OF HEALTH.

Saturday, May 16.

Dr. Letheby, President, in the Chair.

The minutes of the last meeting having been read and approved of, Dr. Vinen proceeded to report the decisions of the Council upon the following subjects:—1st. The reply to a letter received from the Registrar-General, with reference to some complaints he had received from district registrars, to the effect that no remuneration is made for certain returns presented by them to the Registrar-General. The Council consider that it would be better to make application direct to the local authorities than through the intervention of the medical officers of health. 2nd. That it is highly desirable that Dr. Dudfield's proposition for a uniform system of statistical returns, and, as far as possible, a uniform method of arranging the annual reports of both provincial and metropolitan medical officers of health be generally adopted. Copies of forms were ordered to be sent to every medical officer of health in the United Kingdom, with a letter of explanation recommending that they should be generally adopted.

Dr. Ross thought the returns should be made as far as possible in conformity with those of the Registrar-General, and that a note should be appended inviting each medical officer to comply with the request of the Society, and informing him that he could make any additional tables that he thought necessary.

Another Member proposed to include "cancer" in the tables after tubercular diseases; but Dr. Letheby explained that the Council desired to limit the records of disease to those which exposed the existence of bad sanitary conditions.

The Secretary then read certain amendments—about a dozen in all—to the Metropolitan Buildings and Management Bill, which the Council have recommended their representatives, Drs. Letheby and Liddle, to press upon the Government when they appear to give evidence before the Select Committee of the House of Commons on behalf of the Society.

With regard to the Bill for the Registration of Births and Deaths, the Council were of opinion that a similar certificate should be required to that now used for vaccination, having a

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clause to prevent unqualified practitioners from signing a death-certificate. The Registrar-General says that he has instructed the registrars to enter all deaths as not registered where an unqualified practitioner has signed the certificate.

Dr. ILIFF considered that great inconvenience had been caused by this decision, for a large number of deaths in his own district at St. Thomas's Hospital were certified by unqualified men. If *bonâ fide* practitioners are compelled to give certificates of death, it ought to be a penal offence for an irregular practitioner to sign such a certificate, or at least such should be considered invalid. There is no saving clause in the Bill to relieve medical officers from giving certificates of death if called in suddenly to a patient without knowing the real cause of death or the circumstances of the case. In such cases he ought to have the option of an appeal to the coroner for further investigation.

After a few more observations from other members of the Society, it was decided to refer the Bill to the Council to make such alterations as they considered necessary for amending any objectionable clauses, and to bring the views of the Society before the Government.

With regard to the Slaughter-Houses Bill, Dr. LETHEBY stated that he had heard on good authority that the Government intended to pass the Bill tolerating private slaughter-houses, but to protect the public by very stringent regulations.

A communication was read from Sir Henry Thompson, expressing regret that his engagements were so numerous that it would be impossible for him to bring the subject of Cremation before the Society at present.

Dr. CORFIELD proceeded to explain his views upon the Etiology and Prevention of Enteric Fever. In the *Medical Times and Gazette* for May 16 we reported at some length a paper read before the Epidemiological Society, "On the Alleged Spontaneous Development of Enteric Fever," by the same author, so that we shall only now refer to those views not previously enunciated. Dr. Corfield agrees with Dr. Budd, Trousseau, and all French authors, that enteric fever resembles the other contagious fevers, being communicable from one to another; and he combats the views entertained by Dr. Murchison. If it does not spread by contagion, said Dr. Corfield, then it forms a most remarkable exception to other febrile diseases. The poison contained in the excreta is so rapidly got rid of that it seldom infects the attendants. All writers admit that enteric fever spreads by the air. Dr. Murchison distinctly states that all evidence is against the supposition that fresh fæces contain the poison. There is no more reason to expect a solution of fresh fæces to poison a patient than that gallons of a solution of white arsenic or sugar of lead in a room would poison a person unless imbibed. The gases given off from decomposing fæces of an enteric fever patient, in the drains, etc., must contain the poison. Dr. Corfield had visited several towns in the most filthy condition with a very high death-rate, and yet no typhoid fever for many years. Suddenly an epidemic appears, and he has succeeded in tracing the cause to the first case, which was imported from a distance. Dr. Murchison admits that such cases prove that typhoid is communicable. The prevalent idea being that excreta are only capable of generating the disease under certain conditions of climate, etc., it has been concluded that no more precautions are necessary for the removal of typhoid excrement than are required in other diseases. Dr. Murchison, in his book on fever, says medical men do not take typhoid fever from their patients, but he afterwards alludes to the case of a French doctor who took typhoid while attending a patient. Dr. Corfield believes that the preliminary diarrhœa of typhoid is capable of communicating the poison. The second part of the paper referred to the means for preventing the spread of typhoid fever. The first object to be aimed at is to prevent the poison entering into a house, and then to prevent it spreading from the infected to those who are not. In the country the most frequent cause of this disease was the drinking of well-water contaminated by infiltration from a neighbouring privy, which might also infect the air; in towns, by the drinking-water being infiltrated with sewer-gas conveyed to the cistern by the overflow pipe. Cholera has never prevailed in an epidemic form in the city of Lyons. The people of Paris and Marseilles have flocked there in thousands during recent cholera epidemics, and yet only isolated cases were met with; therefore the conditions for the spread of cholera are not the same as those for typhoid fever, which is a very frequent disease in Lyons. It is a great fallacy to suppose, as some have, that enteric fever is only a severe diarrhœa, and cholera a severe enteric fever. All will admit that system of sewage removal to be the best which is the most expeditious in the removal and disinfection of human excreta. Conservative systems are generally inefficient, because they depend upon the retention of excretal matter so long as it is not offensive. In this way a quantity of foul air is generated. Wherever, as in Birmingham, water is deficient and no good outfall for the sewage exists, a conservative system may be required, and the simple tub emptied daily by public carts is the best. This is the only system which really pays to work it. In the systems for disinfecting the excreta no one can tell, as Dr. Parkes justly observes, when the excrement is rendered innocuous. Wherever the water-carriage system is effectually carried out, there is sure to be a low death-rate. The death-rate for the last four weeks in London was remarkably low, being 21, 20, 19, and 21 per 1000 respectively; and this was due mainly to the rapid removal of the sewage by the main drainage works now completed. The danger of the water-closet system is that we have to connect the house-drain with the main sewer containing both foul air and foul water. This connexion must be made as little dangerous as possible by ventilating shafts and good gradients. How are we to prevent the sewer-air from getting into houses? It is a very bad plan for the house-drain to pass under the house from the back to the front; it would be better if all the sewers were at the backs of the houses. In the majority of cases typhoid fever in towns is caused by the waste-pipe of cisterns communicating directly with the drain. Of seventeen cases the author had inquired into, thirteen were in houses where the sewer-air escaped into the cistern. Sink-pipes should be made not to end in the main sewer, but in a syphon-trap in the yard; Doulton's trap is the best. Where possible, a break should be made in the house-sewer; and if there is a front garden, a shaft could be made communicating with a syphon trap. Disinfectants in water-closets ought to be unnecessary. If in good situations, they ought not to be a nuisance. Pan water-closets are not so good as valve-closets, because the foul air in the D trap, and the foul matters left there, may become a nuisance. This, however, may be remedied by carrying a half-inch ventilating-pipe from the trap to the outer air. Having, then, a nearly perfect method of getting rid of excreta, there would be no necessity to alter the arrangements if recent fæces do not contain the poison. Dr. Murchison, however, recommends that a solution of carbolic acid (one in forty) be added to the pan immediately after a motion. Dr. Budd says we might stamp out enteric fever if we took sufficient pains to prevent sewer-air and excrementitious matter from getting into drinking-water, and immediate disinfection of the dejecta as they escape from the body.

Dr. LETHEBY, commenting upon Dr. Corfield's paper, remarked that green copperas was not a good disinfectant, as it destroyed vegetation, thus making sewage useless for manure: carbolic acid had not this defect. Dr. Letheby had recorded two cases in which there was most powerful evidence of the communicability of typhoid fever. One of his patients had been visiting typhoid cases at the Fever Hospital; his cook caught it, then the landlady, and finally a newspaper boy who called at the house. The other case was in a town where a new system of drainage had been established. There had been no typhoid for years in this locality; soon after a case was brought to the town, and a serious epidemic prevailed. He believed the reason why sewer workmen never took fever was because they were strong robust men, with energetic vital powers, and they lived in healthy localities. He considered that the poison mostly took effect at night, when the sewer-gas invaded the sleeping apartments.

Dr. STEVENSON was surprised to find that medical men as a rule give no instructions for the disinfection of fæces; they seem to be unaware of the danger of neglecting such preventive measures. Some less complicated system for the removal and isolation of infected cases ought to be adopted. Guardians are not obliged to take fever cases unless an arrangement has been made with them.

Dr. CORFIELD, in his reply, stated that it was a dangerous theory to hold that communication from one to another is only exceptional. In all cases of suspected enteric fever the fæces should be regarded as poisonous, and the medical officer of health should be communicated with.

This being the final meeting of the session, Dr. Letheby informed the Society that the meetings would be resumed in October next. The annual meeting takes place in July.

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MEDICAL NEWS.

APOTHECARIES' HALL.—The following gentlemen passed their examination in the Science and Practice of Medicine, and received certificates to practise, on Thursday, May 21:—

Holland, Lucius, Wylam-on-Tyne.
Mason, Richard, Tenby, Pembrokeshire.
Walker, William, Manchester.

The following gentlemen also on the same day passed their primary professional examination:—

Evans, Frederick William, St. Bartholomew's Hospital.
Gawitt, James Jackson, St. Mary's Hospital.
Hitchins, Thomas John, St. Mary's Hospital.
Johnson, William Boyton, London Hospital.

APPOINTMENTS.

*** The Editor will thank gentlemen to forward to the Publishing-office, as early as possible, information as to any new Appointments that take place.

FAIRBANK, F. ROYSTON, M.D., M.R.C.P. Edin., L.R.C.P. Lond.—Physician to the District Hospital, Lynton, North Devon.

GIBSON, CHARLES H., M.R.C.S. Eng., L.R.C.P. Edin.—Medical Officer and Public Vaccinator for District No. 1 and the Workhouse of Daventry Union, *vice* B. C. Gowing, M.R.C.S., L.S.A., resigned.

HARTLEY, CHARLES, M.R.C.S. Eng., L.S.A.—Surgeon to the District Hospital, Lynton, North Devon.

TURNER, F. CHARLEWOOD, M.A., M.D. Cantab., M.R.C.S. Eng.—Resident Assistant-Physician to St. Thomas's Hospital.

BIRTHS.

BURTON.—On May 22, at Walsall, the wife of John Burton, L.R.C.P., L.R.C.S., of a son.

MAURICE.—On May 24, at Marlborough, the wife of J. Blake Maurice, M.D., F.R.C.S. Eng., L.S.A., of a son.

RANGER.—On May 17, at Westfield Villa, Peckham Rye, the wife of W. G. Ranger, M.R.C.S., of a son.

STURTON.—On May 23, at 29, Burney-street, Greenwich, the wife of H. W. South Sturton, M.R.C.S. Eng., L.S.A., of a son.

MARRIAGES.

FEHRSEN—SIMPSON.—On May 20, at 5, Waverley-place, Aberdeen, James MCall Fehrsen, M.B., second son of G. O. de Wet Fehrsen, M.D., Cradock, South Africa, to Catherine Agnes, younger daughter of the late Alexander Simpson, M.D., H.M. Indian Army.

FULLER—SYMONS.—On May 19, at St. Mary's, Stoke Newington, Thomas Fuller, M.D., of New Shoreham, to Anne Georgina Travers, youngest daughter of the late Edward Paré Symons, Esq., of Plymouth.

PROLE—COOMBS.—On May 26, at Bunyan Meeting, Bedford, Joseph Lilley Prole, son of Benjamin Prole, of Elstow, Beds, to Martha Hills, eldes daughter of James Coombs, M.D., M.R.C.S. Eng., of Bedford.

DEATHS.

BYLES, JAMES COTTON, L.R.C.P., M.R.C.S. Eng., L.S.A., at his residence, Victoria-park-road, Hackney, on May 21.

CLAPTON, ELLA ROBERTSON, younger daughter of Edward Clapton, M.D., F.R.C.P., F.R.C.S., at 6, Lansdowne-villas, Lee, Kent, on May 23, aged 7 years and 9 months.

CLARKE, JOSEPH, M.R.C.S. Eng., late R.N., at 6, Mecklenburg-square, on May 21, aged 65.

HOMFRAY, MARY, widow of the late Thomas Homfray, M.R.C.S., at Shepherd's-bush, on May 21, aged 74.

LAKE, AUGUSTA, widow of the late John Lake, M.R.C.S., at her residence, 4, Westmoreland-road, Westbourne-park, W., on May 21.

MACLAGAN, MARGARET JOHNSTON, wife of Philip W. Maclagan, M.D., L.R.C.S., at Ravensdowne, Berwick-on-Tweed.

MYERS, FANNY, wife of Henry Reynolds Myers, L.F.P.S. Glasg., L.M., at 30, Euston-square, on May 21.

WEBSTER, GEORGE, M.R.C.S. Eng., L.S.A., son of George Webster, M.D., of Dulwich, at Albert-road, Peckham, on May 24, aged 46.

WILSON, JEANETTE ELIZA, wife of William Wilson, M.D., F.R.C.P., M.R.C.S. Eng., and eldest daughter of the late Alexander Wood, Esq., of Woodcot, formerly one of the Judges of the Supreme Court in Scotland.

VACANCIES.

In the following list the nature of the office vacant, the qualifications required in the Candidate, the person to whom application should be made, and the day of election (as far as known) are stated in succession.

BRADFORD INFIRMARY AND DISPENSARY.—Assistant House-Surgeon. Applications, with testimonials, to Mr. C. Woodcock, Secretary, 65, Market-street, Bradford, on or before June 8.

CANCER HOSPITAL, BROMPTON.—Surgeon. Candidates must be M.R.C.S. Eng. Applications, with testimonials, to the Chairman of the Weekly Board, at 167, Piccadilly, W., on or before June 2.

CARMARTHEN INFIRMARY.—House-Surgeon. Candidates must be duly qualified. Applications, with testimonials, to the Secretary, 58, King-street, Carmarthen, on or before June 2.

DERBY COUNTY LUNATIC ASYLUM.—Assistant Medical Officer. Candidates must be duly qualified in medicine and surgery. The office will be vacant on August 2. Applications, with testimonials, to John Barber, Esq., County Lunatic Asylum, Mickleover, Derby.

DERBYSHIRE GENERAL INFIRMARY, DERBY.—Assistant House-Surgeon. Applications, with testimonials, to Mr. S. Whitaker, 4, Victoria-street, Derby.

GLASGOW ROYAL LUNATIC ASYLUM.—Resident Physician-Superintendent. Candidates must be duly qualified. Applications, with testimonials, to J. Roxburgh Strong, Esq., C.A., 110, West George-street, Glasgow, on or before June 12.

HANTS COUNTY ASYLUM, KNOWLE, FAREHAM.—Two Assistant Medical Officers. Candidates must be duly qualified. Applications, with testimonials, to Dr. Manley, at the Asylum, on or before June 4.

NEWCASTLE-ON-TYNE INFIRMARY.—Junior House-Surgeon. Candidates must be duly qualified and registered. Applications, with testimonials, to the Secretary, on or before May 30.

ROYAL FREE HOSPITAL.—Junior House-Surgeon. Candidates must be duly qualified. Applications, with testimonials, to the Secretary, on or before June 3.

ROYAL HOSPITAL FOR DISEASES OF THE CHEST, CITY-ROAD, E.C.—Physician. Candidates must be Fellows or Members of the Royal College of Physicians of England. Applications, with testimonials, to C. Lowther Kemp, Secretary to the Council, before June 4.

ST. PANCRAS AND NORTHERN DISPENSARY.—Resident Medical Officer. Candidates must be legally qualified. Applications, with testimonials, to S. S. Wigg, Esq., 33, Gordon-square, W.C.

ST. THOMAS'S HOSPITAL.—Resident Assistant-Physician. Candidates must be duly qualified. Applications, with testimonials, to the Treasurer, at the office, St. Thomas's Hospital.

WESTMINSTER HOSPITAL.—House-Surgeon. Candidates must be qualified to practise under the Medical Registration Act of 1858, and will be subjected to a competitive examination, and are to send in their names to the Secretary, on or before June 1.

WESTERN INFIRMARY, GLASGOW.—Superintendent. Candidates must be registered medical practitioners. Applications, with testimonials, to the Honorary Secretary, on or before June 15.

WOLVERHAMPTON AND STAFFORDSHIRE GENERAL HOSPITAL, WOLVERHAMPTON.—House-Surgeon. Candidates must be duly qualified. Applications, with testimonials, to the Chairman of the Medical Committee, on or before June 1.

UNION AND PAROCHIAL MEDICAL SERVICE.

*** The area of each district is stated in acres. The population is computed according to the census of 1871.

RESIGNATIONS.

Castle Ward Union.—Mr. David Bethune has resigned the Ponteland District; area 19,839; population 2083; salary £20 per annum; also the Workhouse, salary £30 per annum.

Manchester Township.—Mr. Wm. Berry has resigned the office of Junior Assistant Medical Officer at the Workhouse Hospital; salary £120 per annum, with residence.

Mansfield Union.—Mr. James Dawson has resigned the Fifth District; area 4748: population 4827; salary £32 10s. per annum.

Stockton Union.—Mr. Duncan McCuaig has resigned the Middlesborough North District; area 1080; population 28,864; salary £85 per annum.

Sudbury Union.—Mr. Maurice Mason has resigned the Third District; area 16,051; population 11,133; salary £122 per annum; also the Workhouse, salary £55 per annum.

APPOINTMENTS.

Bourn Union.—Joseph E. Collingwood, M.R.C.S. Eng., L.R.C.P. Edin., to the Castle Bytham District.

Cranbrook Union.—Richard Minors, M.R.C.S. Eng., L.S.A., to the Benenden District.

Erpingham Union.—Samuel J. Barton, M.D. and C.M., to the Aldborough District.

THE health of the large towns of the Punjaub, reports the Sanitary Commissioner on February 21, continues unusually good. Only at Peshawur the death-rate showed a tendency to rise. The total deaths from small-pox, which in the previous week were 247, had fallen to 214. No deaths were registered from cholera.

TREATMENT OF BURNS.—At the Roosevelt Hospital, New York, white-lead paint has been found, after trying almost every plan of treatment hitherto proposed, to be the best and cleanest application. Mix as for painting, but considerably thicker, and apply with a brush. A very neat and satisfactory dressing in superficial burns consists in coating the surface with mucilage, and then covering it with powdered lycopodium.—*New York Medical Record*, May 1.

NOTES, QUERIES, AND REPLIES.

He that questioneth much shall learn much.—*Bacon.*

M.R.C.S.—Clause 1 of Section 19 of the Sanitary Act, 1866.

Q. C. P.—The British Medical Association will hold its forty-second annual meeting in Norwich on August 11, 12, 13, and 14.

Messrs. Bullock and Reynolds.—We have received a further communication from these gentlemen with regard to the respective merits of their and Messrs. Corbyn's Inhalers. As both sides have had an opportunity of speaking as to matters of fact, we do not consider it desirable to prolong the controversy in our columns.

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Personal Identity.—

"Danger, long travail, want, or woe
Soon change the form that best we know—
For deadly fear can time outgo,
And blanch at once the hair.
Hard toil can roughen form and face,
And want can quench the eye's bright grace,
Nor does old age a wrinkle trace
More deeply than despair."—*Scott's "Marmion."*

PERIODICALS AND NEWSPAPERS RECEIVED—

Lancet—British Medical Journal—Medical Press and Circular—Nature—Pharmaceutical Journal—O Correio Medico de Lisboa, Nos. 13, 14, and 15—Allgemeine Wiener Medizinische Zeitung—Berliner Klinische Wochenschrift—Centralblatt für Chirurgie—Brighton News—Public Health—Gazette Médicale—Gazette Hebdomadaire—La France Médicale—Le Progrès Médical—La Tribune Médicale—Gazette des Hôpitaux—Bulletin de l'Académie de Médecine—Chicago Medical Journal—Canada Medical and Surgical Journal—Students' Journal and Hospital Gazette—Australian Medical and Surgical Review—York Herald—Canada Lancet—Missouri Clinical Record.

BOOKS AND PAMPHLETS RECEIVED—

Waring's Bazaar Medicines—Contributions to Pathology and Surgery, by Cæsar H. Hawkins, F.R.S.—Bird's Report on the Sanitary Condition of the Fylde District—Stocker's Hints for Health—Hempel's Science of Homœopathy—Stein on Retention of Urine—Annual Report of the State Lunatic Asylum, Utica, N.Y.—Woodman on the Relative Frequency and Value of Certain Symptoms of Congenital Lues—Annual Report of the Derbyshire County Lunatic Asylum—Elsberg on the Connexion of Throat and other Diseases—Elsberg on Syphilitic Membranoid Occlusion of the Rima Glottidis—Horsley's Simple and Expeditious Way of Estimating the Value of Milk as an Article of Food—Bridge's and Holmes's Observations of the Employers upon the Report to the Local Government Board—Foster's Report on the Vaccine Department of the New York Dispensary—Annual Report of County and City of Worcester Pauper Lunatic Asylum—Gordon's Notes on the Health Service of Armies during War—Moore's Native Practice in Rajpootana—Hinton's Aural Surgery—Compendium de Physiologie Humaine, par Professeur Julius Budge, traduit de l'Allemand par Eugène Vincent—Les Origines et la Propagation du Typhus, par le Dr. Guillemin—Contribution a l'Etude Anatomique et Clinique de l'Erysipèle et des Œdèmes de la Peau, par le Dr. J. Renaut—Report of the Golden-lane Mission—Black on Medical "Charities."

COMMUNICATIONS have been received from—

Mr. G. Street, London; Mr. Benson, London; Messrs. Bullock and Reynolds, London; Mr. W. W. Reeves, London; Dr. Strange, Worcester; Mr. C. Jeaffreson, Newcastle-on-Tyne; Dr. Letheby, London; The Registrar-General of Scotland; Mr. G. Norman, Daventry; Dr. F. R. Fairbank, Lynton; Mr. R. G. Whitfield, London; Mr. H. W. S. Sturton, Greenwich: Dr. James A. Allan, Fort William; Dr. Sparks, London; Dr. James E. Pollock, London; Mr. John Woodman, Exeter; Dr. Edis, London; Mr. J. Chatto, London.

APPOINTMENTS FOR THE WEEK.

May 30. Saturday (this day).

Operations at St. Bartholomew's, 1½ p.m.; King's College, 2 p.m.; Charing-cross, 2 p.m.; Royal Free, 9 a.m. and 2 p.m.; Hospital for Women, 9½ a.m.; Royal London Ophthalmic, 11 a.m.; Royal Westminster Ophthalmic, 1½ p.m.; St. Thomas's, 9½ a.m.

Royal Institution, 3 p.m. Mr. R. A. Proctor, "On the Planetary System."

June 1. Monday.

Operations at the Metropolitan Free, 2 p.m.; St. Mark's Hospital for Diseases of the Rectum, 2 p.m.; St. Peter's Hospital for Stone, 3 p.m.; Royal London Ophthalmic, 11 a.m.; Royal Westminster Ophthalmic, 1½ p.m.

Royal Institution, 2 p.m. General Monthly Meeting.

2. Tuesday.

Operations at Guy's, 1½ p.m.; Westminster, 2 p.m.; National Orthopædic, Great Portland-street, 2 p.m.; Royal London Ophthalmic, 11 a.m.; Royal Westminster Ophthalmic, 1½ p.m.; West London, 3 p.m.

London Anthropological Society, 8 p.m. Meeting.

Royal Institution, 3 p.m. Dr. W. H. Stone, "On the Theory of Stringed Musical Instruments," with Musical Illustrations.

3. Wednesday.

Operations at University College, 2 p.m.; St. Mary's, 1½ p.m.; Middlesex, 1 p.m.; London, 2 p.m.; St. Bartholomew's, 1½ p.m.; Great Northern, 2 p.m.; St. Thomas's, 1½ p.m.; Samaritan, 2½ p.m.; King's College (by Mr. Wood), 2 p.m.; Royal London Ophthalmic, 11 a.m.; Royal Westminster Ophthalmic, 1½ p.m.

Obstetrical Society, 8 p.m. Dr. John Williams will show a Specimen of Calcified Fibroids. Dr. Tilt, "On Lymphangitis in Pelvic Pathology." Dr. Robt. Gray, "Separation of the greater portion of the Cervix Uteri during Labour." And other Communications.

Royal Microscopical Society, 8 p.m. Meeting.

4. Thursday.

Operations at St. George's, 1 p.m.; Central London Ophthalmic, 1 p.m.; Royal Orthopædic, 2 p.m.; University College, 2 p.m.; Royal London Ophthalmic, 11 a.m.; Royal Westminster Ophthalmic, 1½ p.m.; Hospital for Diseases of the Throat, 2 p.m.

Royal Institution, 3 p.m. Prof. N. S. Maskelyne, "On Physical Symmetry in Crystals."

5. Friday.

Operations at Central London Ophthalmic, 2 p.m.; Royal London Ophthalmic, 11 a.m.; South London Ophthalmic, 2 p.m.; Royal Westminster Ophthalmic, 1½ p.m.; St. George's (ophthalmic operations), 1½ p.m.

Royal Institution (Weekly Evening Meeting, 8 p.m.), 9 p.m. Prof. Burdon-Sanderson, "On Venus's Fly Trap (Dionæa Muscipula)."

VITAL STATISTICS OF LONDON.

Week ending Saturday, May 23.

BIRTHS.

Births of Boys, 1123; Girls, 1139; Total, 2262.
Average of 10 corresponding years 1864-73, 2099·7.

DEATHS.

	Males.	Females.	Total.
Deaths during the week	726	600	1326
Average of the ten years 1864-73	668·4	617·8	1286·2
Average corrected to increased population	...	...	1437
Deaths of people aged 80 and upwards	...	...	48

DEATHS IN SUB-DISTRICTS FROM EPIDEMICS.

	Population, 1871.	Small-pox.	Measles.	Scarlet Fever.	Diphtheria.	Whooping-cough.	Typhus.	Enteric (or Typhoid) Fever.	Simple continued Fever.	Diarrhœa.
West	561359	...	2	...	2	3	...	1	2	7
North	751729	...	11	5	3	10	...	1	1	1
Central ...	334389	...	2	3	2	4	...	...	...	1
East	639111	...	5	7	2	8	1	3	3	4
South	967693	...	6	2	3	15	3	4	2	8
Total	3254280	...	26	17	12	41	4	9	8	21

METEOROLOGY.

From Observations at the Greenwich Observatory.

Mean height of barometer	29·825 in.
Mean temperature	51·6°
Highest point of thermometer	77·9°
Lowest point of thermometer	31·9°
Mean dew-point temperature	44·7°
General direction of wind	E.N.E.
Whole amount of rain in the week	0·04 in.

BIRTHS and DEATHS Registered and METEOROLOGY during the Week ending Saturday, May 23, 1874, in the following large Towns:—

Boroughs, etc. (Municipal boundaries for all except London.)	Estimated Population to middle of the year 1874.*	Persons to an Acre. (1874.)	Births Registered during the week ending May 23.	Deaths Registered during the week ending May 23.	Temperature of Air (Fahr.) Highest during the Week.	Lowest during the Week.	Weekly Mean of Mean Daily Values.	Temp. of Air (Cent.) Weekly Mean of Mean Daily Values.	Rain Fall. In Inches.	In Centimetres.
London	3400701	45·1	2262	1326	77·6	31·9	51·6	10·89	0·04	0·10
Portsmouth ...	120436	26·8	73	54	...	35·4	...	...	0·20	0·51
Norwich	82257	11·0	50	37	68·0	33·5	48·1	8·94	0·01	0·03
Bristol	192889	43·3	138	69	64·9	38·9	50·9	10·50	0·11	0·28
Wolverhampton ...	70896	20·9	47	26	69·9	35·5	49·5	9·72	1·22	3·10
Birmingham ...	360892	43·0	271	141	67·0	35·3	49·9	9·94	0·34	0·86
Leicester	106202	33·2	51	42	67·2	32·5	50·4	10·22	0·48	1·22
Nottingham ...	90894	45·5	63	40	65·5	33·9	49·5	9·72	0·06	0·15
Liverpool	510640	98·0	334	281	60·1	44·2	49·9	9·94	0·53	1·35
Manchester ...	355339	82·8	258	201	69·0	34·0	50·6	10·33	0·15	0·38
Salford	133068	25·7	136	65	67·9	33·1	49·7	9·83	0·31	0·79
Oldham	86281	18·5	55	51	65·0	...	...	...	0·34	0·86
Bradford	163056	22·6	91	76	65·0	36·5	48·7	9·28	0·00	0·00
Leeds	278798	12·9	205	175	65·0	34·0	48·6	9·22	0·00	0·00
Sheffield	261029	13·3	211	120	65·0	31·5	47·9	8·83	0·47	1·19
Hull	130996	36·0	111	62	61·0	27·0	45·7	7·61	0·41	1·04
Sunderland ...	104378	31·6	62	49	...	...	...	...	...	...
Newcastle-on-Tyne	135437	25·2	98	57	...	...	...	...	...	...
Edinburgh	211691	47·8	111	78	67·4	38·3	48·8	9·33	0·05	0·13
Glasgow	508109	100·4	365	286	65·8	35·1	48·9	9·39	0·18	0·46
Dublin	314666	31·3	168	126	68·3	33·3	52·2	11·22	0·40	1·02
Total of 21 Towns in United Kingdm	7618655	36·6	5190	3362	77·6	27·0	49·5	9·72	0·28	0·71

At the Royal Observatory, Greenwich, the mean reading of the barometer last week was 29·83 in. The highest was 30·17 in. on Sunday morning, the 17th inst., and the lowest 29·30 in. on Saturday afternoon.

* The figures for the English and Scottish towns are the numbers enumerated in April, 1871, raised to the middle of 1874 by the addition of three years and a quarter's increase, calculated on the rate which prevailed between 1861 and 1871. The population of Dublin is taken as stationary at the number enumerated in April, 1871.

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ORIGINAL LECTURES.

LECTURES ON CERTAIN CLINICAL VARIETIES OF CONSUMPTION.

DELIVERED AT THE HOSPITAL FOR CONSUMPTION AND DISEASES OF THE CHEST, BROMPTON.

By JAMES E. POLLOCK, M.D., F.R.C.P.,
Physician to the Hospital.

GENTLEMEN,—I consider a hospital to be like a museum—full of specimens, for the most part unassorted. In a special hospital like this, some rough sorting of the cases has of necessity already taken place. All are affected with diseases of the chest, but the vast majority of our patients suffer from phthisis. Although, as you are aware, we receive all chest affections including diseases of the heart, which are very numerous in our wards, phthisis (or consumption) constitutes quite four-fifths of our cases. It is very natural, therefore, that I should ask your attention briefly to their actual varieties and classification. Our great enemy in studying the practice of medicine is uniformity of the subject-matter leading too often to a routine method of treatment. If our cases are so alike as to produce a sense of sameness, a sleepiness of mind results, and all subtle differences are lost in the general picture on which we are apt to repose mentally. It is well to recognise this condition, for it is fatal to all accurate recognition of disease, and in opposition to all advances, either of knowledge or of treatment. The frequently fatal result in this affection has also helped to stamp it with a fictitious sameness; yet there is no fact in medicine more certain than that phthisis, always uncertain and varying in its progress, is the longest in duration of all chronic affections, while it may be added that it is *not invariably fatal*.

Another temptation to repose on a theoretical uniformity of features in phthisis is the very natural and scientific desire to discover pathological elements in the morbid products of the disease, which shall, by their being invariably present, enable us to refer all its phenomena to an agent which shall thus represent, as it were, the essence and virus of the affection. We seek for a pathological entity—a unity in the morbid cause—something so invariable in its characters that it shall be easily recognisable, and so constant in its presence that it must reasonably be considered at least a prime factor in the morbid chain of events. Such an entity Laennec supposed that he had found in "tubercle," which, as you know, has given its name to this disease for nearly half a century, and which the latest school has as yet failed wholly to displace. Yet it is now known to us that there can be a phthisis without any tubercle, and that while tubercle is commonly present in all cases of consumption, it may be absent in the earlier stages at least of certain forms of the disease. Some would limit the use of this term to the grey granulations, and some to the acute disorder called tuberculosis, while others would abolish the name altogether. When subjected to the most careful microscopical examination, it is asserted that this tubercle has no proper anatomical features, but is distinguishable only by its vital and pathological tendencies. The features of tubercle are, according to others, common to cancer and the white corpuscles. Tubercle is an irritative overgrowth of pre-existing lymph-elements, and is the anatomical mark of an obscure general affection. One of our best pathologists clings to the idea that there is one pathological type for all forms of phthisis, and that the morbid products found in the acute tuberculosis of children are invariably present in all cases of chronic phthisis. It is interesting to note how the scientific minds of our best men return again and again to the pursuit and discovery *of a uniform agent* in the morbid phenomena of phthisis. Yet it is, indeed, a fact on the very surface of our latest and most patient investigations, that, while there may be and are invariable products of disease in all the cases, there is no single element which gives *per se* the character and stamp of unity to phthisis. In the tubercle of Laennec we had such, but in the pathology of Wilson Fox and Sanderson we must recognise many morbid products, and there is no pathological unity which can be called tubercle. With these observers we are now obliged to recognise—the formation of adenoid tissue; its overgrowth in the alveolar walls; inflammatory and degenerative changes; while the lung displays—Bayle's grey granulations; opaque white soft granulations; and yellow soft granulations. It is obvious that our pathological views are in a transition stage and that in the great search for a unity of morbid cause in phthisis the searchers have advanced our knowledge, and brought to light several agents which cannot fail to influence the progress of our living cases.

And now, having glanced at the pathological doctrines and discoveries of the hour, and shown how the medical mind of the day tends to disbelieve in tubercle as the one morbid agent in consumption, let me show you that this disease called phthisis, in its actual living manifestations, is far from presenting similar features in all cases. This great house or museum is filled with many varieties—some full of promise for the result, others inevitably fatal; some with slight impairment of health while in an advanced stage of the disease, others with great constitutional disturbance in its earliest manifestations; some *tolerating*, others very intolerant of local mischief in the lung. We can show you here some who seem born to early wasting or consumption, with flat chest, alar scapulæ, and high shoulders; and some with large and well-made chests,—but both suffering from what must be called "phthisis." These two will go through the course of the disease with widely differing results. It is therefore evident that some clue must be had by which to reduce to order these differing specimens of disease, and that in the disorder which we call phthisis there are many *modifying agents*.

It may be that we shall find in these later pathological views the key by which to arrange the living varieties of the disease; and I shall seek to connect them and to point out those morbid elements which lend a character to several forms in which phthisis is seen clinically. Whether that deposit which we find pretty uniformly in all our cases after death be fitly called *tubercle*, I shall not argue, but accept as proved that in that deposit found in all ulcerated lungs are observed the following:—1. Elements akin to lymph-gland structure. 2. Mere inflammatory products; epithelial blocking of the minutest air-tubes; plasma effused around the tubes, and by pressure destroying their nutrition. 3. Fibrous structure developed. All these ultimately undergo destructive changes, as fatty degeneration, if the case last long enough. We have thus a natural pathological division of our cases; for it will be found that on the predominance of one or other of these elements, the history of the case, its progress and termination, will largely depend. On this, I say, but not on this alone, for other modifying agents vastly influence the course of phthisis. The following may be mentioned among the chief of these:—1. Inflammatory congestions, accompanied by pyrexia. 2. The localisation of the deposit in the lung, scattered or massed, at the apex or the base. 3. Age. 4. Hereditary influences. 5. Integrity of the digestive system. The first and last of these—pyrexia, and the state of the digestive system—are the most important. Thus the forms of the disease will be decided by the predominance of the anatomical elements in the deposit in the lung—lymphoid; inflammatory products; fibrous structure; and the termination, as these severally tend to (1) cheesy softening and cavities, (2) diffuse breaking down of all lung tissues, (3) induration, thickening, and fibrous prolongations throughout the lung, with contraction of volume of the lung, resulting displacement of the heart and opposite lung, and enlargement of bronchial tubes. The results of lung mischief will vary with the predominance of such material in the deposit. This cannot be followed out in its minutest detail, and theory must here wait on observation, but it seems likely that lymphoid development and strumous phthisis are tied together; inflammatory products and rapidly progressive phthisis; fibrous transformations and chronic phthisis. I would not pretend to minute clinical accuracy in this division of our cases into classes, but if we have any clue by which phthisis can be made to fall into a natural classification it is well to follow it. A more ordinary method has of late been to classify phthisis by its origin or apparent beginnings, and thus we have (*a*) catarrhal phthisis or alveolar catarrh, causing proliferation of the epithelium of air-cells; (*b*) catarrhal pneumonia, which seems to be a bronchial catarrh localised, solidifying the lung structures by increased adenoid growth, which surrounds and blocks the ultimate bronchioles; (*c*) a fibroid development—the fibrous connective tissue of the lung becoming developed and thickened, followed by the results of contraction and fibroid transformations. My objection to this classification is that it is theoretical and presupposes a cause, about which we have imperfect information. "Catarrhal

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phthisis" by its very name implies that the exciting cause of the disease was a neglected catarrh. It is not sufficient proof of this that an epithelial proliferation blocking the alveoli is found in certain cases. This may have been the result of the irritation of a previous thickening or deposit—adenoid or tuberculous—around the air-cells. And in my judgment the clinical history of catarrh contradicts the assumption. Out of the multitude of catarrhs, how many end in consumption? and how few! Catarrhal pneumonia proceeds on the same assumption, and is only a further stage of the same affection, in which inflammatory exudation is superadded to epithelial proliferation. The fibroid pneumonia is less dependent on a theory regarding its origin than the two other forms; but in our judgment a fibroid condition of the lung is one which supervenes on all chronic ulcerations of the lung structure, and is essentially associated with chronic phthisis in all its forms. I have thus endeavoured to notice briefly the theories of phthisis, with a view to a classification of the disease; and the fault which I have to find with them is that they presuppose a cause, and reason out the supposition into practice, endeavouring to make the facts fit into the theory, instead of opening that great book of nature which is spread out before us. In speaking, then, of the clinical varieties of phthisis, I shall take the disease as I find it. Our theories may not fully account for the observed phenomena; nor can I, indeed, expect that they will while our art is so imperfect, our means of observation so feeble, and our reasoning so one-sided. We stand, as it were, at the door of knowledge—at the very base and lower storey of that edifice which may one day be crowned, but by other hands than ours; and we must content ourselves if we can be at least truthful observers, if not discoverers. And in all fruitful, productive living work I observe this—that the observer is the steady architect who daily adds to the building, but it is only the speculative and ambitious theorist who writes his name in large characters on the top stone.

Leaving theories, I must now point your attention to the actual varieties of the disease as seen in our wards, and to the agents which modify its progress. And, first, I must define phthisis to be an ulcerative disease of the lung, accompanied by wasting of the body.

It is not my intention to speak of acute tuberculosis, which appears in two forms, neither of them seen in our wards except at long intervals. I will notice that variety of progressive phthisis which apparently arises from a pneumonia, but which never resolves, but proceeds to ulcerative destruction of the lung, rapid or chronic, and which by some is called caseous pneumonia. But that acute invasion of the lung-tissues in which the whole or greater part of the pulmonary space is found impacted with grey granulations will not be described. It is of two varieties—one in which there is progressive waste, possibly no pyrexia, and a gradual spread of dulness of the percussion-note over both sides, with harsh but progressively diminished breath-sounds. There may be no softening of the deposit, and an absence of crepitant sounds to the last. The patient dies with strangled breath, exhausted vitality, yet possibly without cough, expectoration, or pain. The other form resembles rather an inflammatory pneumonia, with rapid pulse and high temperature, great vital exhaustion, and grave disorders of digestion. Continuous fever with exacerbations without remissions, restlessness, and dyspnœa, characterise this most fatal and rapid disorder. After death the lungs are found studded with grey granulations and inflammatory products. You may here see granulations which never soften; they have not time to undergo degeneration. A single crop is deposited, matures, but never is converted by fatty degeneration nor becomes caseous. It has been remarked that the life of a tubercle is perhaps never more than a few months. And, perhaps, here we have the short history of a single deposit which has overwhelmed the system with such frightful rapidity, that the more chronic changes by which it would have been altered and cast off have failed for want of time! While speaking of this deposit or development of grey granulations, it is well to remember that fresh crops or deposits appear in all chronic affections of the lung, and are found in our dissections surrounding old cavities, and in our advanced cases causing intercurrent attacks of so-called pneumonia, but which are really primary deposits in the lung-tissue, with accompanying inflammatory or irritating effects. This acute tuberculosis may exist, as you see, without ulcerative destruction of the lung, and thus without phthisis. It is also true that phthisis may exist without so-called tubercle, but that inflammatory products alone may lead to ulcerative destruction of the lung-tissue, which, when it assumes the chronic form and becomes abundant in the fibrous element, is not distinguishable from that which was till recently called chronic tubercular consumption.

Chronic phthisis, then, is our theme; and I would desire to occupy your attention with some of its leading varieties, as manifested in its vital phenomena and physical signs. Apart from all theory as to the nature of that deposit which blocks the lung, and undergoes the progressive changes of softening, caseation, and excavation into cavity, or more rarely into cretefaction, this disorder is most conveniently divided into three stages—the first, that of deposit or evident solidification or blocking of the lung; second stage, where moist crepitant sounds indicate commencing ulcerative change in the lung-tissue and softening of the lung deposit; third, a cavity of more or less regular outline. A premonitory stage of phthisis has always been described, and it is occasionally seen here. It is characterised by emaciation, gradual, progressive, and not to be accounted for by errors in digestion, privations, or the like. There is slight pyrexia—a sub-febrile, varying condition; temperature higher than natural, but not running up to the pyrexial figure witnessed in the later stages. There may be dry cough or no cough, expectoration not at all or very scanty; harsh tones of the respiration at one or both apices, *sometimes alternating in its site*. In the female suspended catamenia, and in both sexes anæmia, often occurs. A careful examination of the chest may even give no results, and we often examine such from time to time, and note nothing, or only doubtful signs. After a time the patient leaves us, and returns with crackling sounds and dulness over one apex, and it is not always that the affected lung is that of which we had entertained suspicion. Remark of these cases that the combination of slight pyrexia with an evening exacerbation and waste of tissues is very suspicious. I wrote many years ago, after watching these cases, that constitutional symptoms preceded physical signs, and my opinion is strengthened by extended experience.

Symptoms of First Stage.—Pyrexia, high temperature (evening rise); sweats; emaciation; digestion fair, only anorexia; hæmoptysis, possibly to a greater or less extent. The physical signs depend on the amount of inflammatory products blocking the lung, rather than on the amount of deposit. Harshness of inspiratory sound, long expiration, slight dulness, and waviness of inspiration are probably due to deposit in the lung; while dulness, well-marked tubular or bronchial sounds, harsh blowing expiration, and crumpling or crackling sounds represent consolidation from inflammatory products. These last may be reduced to the first, but till reduced fever does not abate.

Regarding the prognostic value of the various symptoms and signs, it is to be remembered that high temperature and pulse, much dulness, and tubular sounds in the first stage, especially if a tolerably profuse hæmoptysis exist, indicate an acute congestion of all the lung-tissues, and a likelihood that the process of softening or passage into the second stage will be rapid; whereas the more moderate signs (as above)—mere harshness of respiration and slight dulness, with slight pyrexial symptoms—rather point to a chronic first stage. Should the case not be hereditary, but accidental, this prognosis is strengthened; and I have seen very many instances in which the disease was arrested for years, if timely steps were taken and unwholesome influences corrected.

The nature and amount of the hæmoptysis in the first stage of phthisis is to be carefully noted. Hæmoptysis is always congestive in this stage. In the later it may be merely mechanical or passive, the result of ulceration of a vessel, or more commonly of aneurismal dilatation of a branch of the pulmonary artery in a cavity. This will be noticed again. But in estimating the urgency of a case of phthisis with a congestive hæmoptysis, the amount of blood lost is not always the measure of the danger. A first stage exhibiting profuse hæmoptysis may afterwards become chronic, and such cases are often very prolonged in their later progress. There can be now little doubt that the hæmorrhage commonly relieves the congested lung, and may thus become an indication for treatment.

On the other hand, it is not to be denied that occasionally hæmoptysis in the first stage is followed by an aggravation of the symptoms and an increase in the physical signs, and, as you are aware, it has been asserted that the effused blood blocking the alveoli is itself the cause of consolidation and consecutive softening. Thus a phthisis is said to arise *ab hæmoptoë*. There is no doubt that clots retained in the lung-

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structures, in the alveoli, or in the peribronchial tissues undergo softening, casation, and degeneration. This is not for a moment to be denied; and the class of cases whose symptoms are accelerated after an hæmoptysis in this stage are undoubted instances of the injury caused by effused blood, so mechanically retained in the lung-tissues. But I am up to this time more than doubtful if the lung disease is ever in any instance originated by the effused blood. I have, indeed, never witnessed such a case, for there has always been good evidence of pre-existing lung disease in every such alleged instance. If a patient with dull percussion-note, long expiration, harsh breath-sounds, and with sub-febrile symptoms, gets an hæmoptysis, and rapid softening of the lung takes place, surely the hæmoptysis is a result, and not a cause, of the lung-block and congestion.

The case required to prove the assumption that hæmoptysis is a direct cause and agent in producing phthisis should be where a previously healthy individual is seized with a lung-hæmorrhage, and then falls into consumption. I have not yet witnessed such a case.

Another argument against this theory is that a very large number of the cases of hæmoptysis are not followed by any such results. On the contrary, in very many instances the hæmoptysis seems directly to relieve the congestion of the lung, and good results are observed instead of bad. Besides, there must ever remain the question, What caused the hæmoptysis? Is it a matter of experience among us, who are busied daily about such cases, that a thoroughly healthy man, of sound constitution and family antecedents, will suffer from hæmoptysis? Deducting cardiac cases and those of vicarious origin, do we really find cases of hæmorrhage from the lung without some antecedent cause or disorder of health, and which immediately fall into phthisis? I am compelled to answer these questions in the negative, and to remain of the belief that a preceding but unsuspected deposit in the lung has been the cause of the hæmoptysis in all such cases.

(To be continued.)

ORIGINAL COMMUNICATIONS.

ON THE ETIOLOGY OF ENTERIC FEVER,

ESPECIALLY IN REFERENCE TO THE DUTIES OF MEDICAL OFFICERS OF HEALTH.

By WILLIAM STRANGE, M.D.,
Senior Physician to the Worcester Infirmary, and Medical Officer of Health to the City.

It may be presumed that the ideas which we may entertain as to the mode of origin of any disease will be not unlikely to have an influential bearing upon any action which we may be called upon to take in the way of the prophylaxis of that disease. Now, one of the most frequently recurring of the duties of the medical officer of health will be found to be the removal or the counteraction of the causes which produce enteric fever. This being so, and with the view to warn my brother medical officers of health against what I consider to be a dangerous, because specious, theory of the exciting cause of the disease in question, I crave a small space in this journal for a few remarks upon the mode of reasoning and on the assumptions by which the supporters of this theory endeavour to procure its general acceptance. Amongst other reasons for entering upon this subject just now, I may refer to the report in your columns of the May 16 of a paper read to the Epidemiological Society by Dr. Corfield, the Professor of Hygiene at University College, who there seems to have thrown all the weight of his official position into the scale in favour of the views of Dr. W. Budd and his followers. These gentlemen hold the doctrine of the exclusive genesis of enteric fever from disease-germs emanating in all cases from the intestinal discharges of persons previously affected with the disease: thus claiming for it the standing of a purely contagious disorder in the strict sense of the word.

It is true that the exhaustive and eminently judicial examination of the whole ground of the genesis of fever by Dr. Murchison, in the new edition of his classical work, might well have been taken as settling the question in dispute; and, to the minds of nine out of ten persons who will take the trouble to examine the evidence, *pro* and *con*, as to each of the two prevailing theories of the causation of enteric fever, I think that will be the result. Nevertheless, experience teaches us that a specious and taking argument, especially when based upon the assumption of analogies which are easily grasped by unreflecting minds, often seizes upon the imagination with such force that the image formed in it is apt to be mistaken for a rational deduction from established premises; whilst, in point of fact, the premises may be special and limited, though the conclusion drawn from them is general and universal. The result, on a subject of such vast importance as this, cannot be otherwise than most mischievous; and, if I may take leave to quote Dr. Corfield's warning in an opposite sense to his own, I believe it to be so, because it will tend to discourage persons from removing the *real* cause of the disease—viz., air or water contaminated with decomposed or decomposing animal (generally fæcal) matters,—whilst they are looking for an *ignis fatuus* in the shape of a *special* poison which must, they say, in every case, have been eliminated from the bowels of some person previously affected with the same disease. Thus, whilst seeking for a cause which can be found only in a very small proportion of cases, they may fail to recognise the supreme importance of causes which, in hundreds of instances, are lying under their very eyes.

And here I may notice an assumption which runs throughout the remarks of Dr. Corfield and those who agree with him, and which, although perhaps unconsciously made, must strike those who differ from them as somewhat strained and uncalled for: it is, that all the experience of the independent origin of enteric fever gained by hundreds of observers is to go for nothing, provided they can themselves establish the fact that *sometimes* its origin is from contagion. I may have mistaken Dr. Corfield's meaning, but, if I have, I can refer to the writings of Dr. William Budd and a few others in the same connexion. The assumption appears to be that it is unphilosophical to adopt a double cause for one phenomenon. And so it may be if that cause be found acting, or can reasonably be presumed to have been acting, in every case. But if observers, quite as competent as any, fail to recognise the possibility of the existence of the one named cause, not in one case only, but in the great majority of instances: which would be the unphilosophical course—to say that the specific cause were everywhere present, although not found, or to acknowledge the teaching of experience (true empiricism), and admit that there may be two or several conditions which are capable of producing the same event? I think the right answer must be evident. Again, Dr. Corfield, quoting Dr. Murchison, who says "it is impossible to deny that enteric fever is, in some way, communicable from the sick to persons in health" ("Continued Fevers," p. 465, second edition), affirms that this statement of Dr. Murchison "concedes the whole point of the contagious and infectious origin of the disease." The fact is that Dr. Murchison has merely conceded the *occasional* action of contagion, in fairness to the facts and arguments adduced by Dr. W. Budd and others, whilst in the following pages he most distinctly states his belief in the generally pythogenic or independent origin of the disease, and bases his belief upon a large number of observations by himself and others, as set forth at great length in his work. In fact, Dr. Murchison sums up his experience thus:—"I have rarely been able to trace the disease to contagion amongst the patients admitted into the London Fever Hospital. Of 1576 cases, it was ascertained that 204, or 13·72 per cent., attributed the disease to contagion, but only because other cases had occurred in the same house. Although in large towns it may be difficult to exclude the possibility of contagion, on turning to the history of circumscribed epidemics in country districts it is found to be often impossible to attribute the first appearance of the disease to contagion. . . . . In fact, if we except Bretonneau, Gendron, and our countryman, Dr. W. Budd, it has been almost universally believed by those who have had much experience of the disease that a large proportion of the cases of enteric fever are independent of contagion" (p. 470).

Now, other things being equal, I take it that the conclusions of one observer are as trustworthy as those of another, and thus this question of the genesis of enteric fever might be supposed to be settled by the preponderating evidence derived from the great mass of modern observation, as contrasted with the comparatively few facts which have been brought forward in opposition to the generally received theory. But that which we thought to have been settled by the inquiries and conclusions of Stewart, Barlow, and others, agreed to by Valliex and Louis, and which were again examined by Jenner and Murchison, is once more questioned, and men's

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minds are disturbed by the importance attached to a few facts, which, however, have not been proved to *invalidate* the prevailing theory, but only to *modify* it by the addition of another element to the calculations in certain cases. To these last named facts undue importance, as it seems to me, has been recently given; and should the speciousness of the theory deduced from them be unfortunately mistaken to have a sure basis, those whose duty it will be to combat the ravages of enteric fever under the new Sanitary Acts may be led into great errors, both of action and of advice, which cannot be otherwise than disastrous. As a sanitarian of thirty years' standing—now, alas! one of the few remaining of the old batch, who, after long years, have seen their views at length recognised by the Legislature, which, after a fashion, has made compulsory the appointment of properly qualified officers to supervise the health of the people,—I might claim to have an opinion on the subject under discussion, for during upwards of thirty years of curative practice I have seen a great deal of typhoid fever. Moreover, I am one of those who think that the etiology of zymotic diseases, and notably that of enteric fever, can be best made out by those living amongst a circumscribed population, the movements of which, and the access and departure of zymotic diseases amongst which, may be better observed than can well be the case in London or other large centres of population. For these reasons I shall endeavour, as soon as I possibly can, to adduce some facts and arguments with the object of setting the old faith on its legs again.

Worcester.

THREE PROPOSITIONS

ON THE CLASSIFICATION OF SYPHILIS,

AND ON THE NATURE AND TREATMENT OF THE TERTIARY FORM OF THE DISEASE.

By S. MESSENGER BRADLEY, F.R.C.S.,
Senior Assistant-Surgeon to the Manchester Royal Infirmary.

PROPOSITION I.—A CLASSIFICATION OF SYPHILIS TO BE OF USE MUST BE ONE BASED ON PATHOLOGY.

A CLEAR and accurate classification of syphilis is still a desideratum, from the want of which confusion often prevails in determining which symptoms in certain cases are "secondary" and which are to be ranked as "tertiary." At present the system in vogue is one founded on Hunter's division into symptoms attacking parts first in order and parts second in order, and is essentially anatomical in its nature—*e.g.*, affections of the skin are regarded as secondary, affections of the bones and viscera as tertiary. Along with this the element of time is generally held to be a necessary point for our consideration in forming a conclusion: "secondary symptoms rarely occur before the third week following the appearance of primary symptoms, and more rarely still after the sixth month; whilst tertiary symptoms scarcely ever appear before the sixth month, and may not until after several years."—(Ricord.)

It will be conceded by the supporters of this classification that the element of time varies so widely as to be of slight value in classification: thus we see cases where secondary symptoms do not manifest themselves for a space of eighteen months after the dissidence of the initial lesion; again, we often observe secondary and tertiary symptoms proceeding side by side; and lastly, we often find that secondary symptoms persist or recur for several years after their first appearance, without the advent of any tertiary manifestations. It is not, however, on the score of vagueness in dates that this classification is so faulty, but rather because it regards some of the tissues of the body as the seats of secondary mischief, and other different tissues as the peculiar seats of tertiary affections. This histological or anatomical division is in the highest degree misleading, inasmuch as, with few exceptions, the different parts of the body are equally prone to the attacks of both stages of the disease; so that a contrasted parallel may be drawn between the effects of secondary and tertiary syphilis upon the various tissues and organs of the body. Fortunately, pathology comes to our aid, and enables us to define the nature of the difference, which all agree does practically exist, between the two epochs of the malady. It may be laid down as a formula, by which we may determine the character of any particular symptom, that no matter where or of what nature the secondary affection be, it is always attended by and dependent upon inflammatory action, from which tertiary manifestations are always entirely free; while, on the other hand, tertiary syphilis, unlike secondary, is attended by the exudation of a special and peculiar kind into the various tissues and organs of the body. The presence of inflammation on the one side, and of a gummous or amyloid material on the other, thus gives us a clear line of demarcation between the two; and these circumstances have induced the German syphilographers, notably Bärensprung, Virchow, and Sigmund, to adopt a pathological classification, which, with slight modifications, I would commend to the attention of English surgeons, feeling that it is desirable not only that we should abandon a system which is vague and faulty, but that we should adopt one which is simple, uniform, and scientific.

It will better illustrate the position we are now in if I take the recent classification of one of our English authorities upon this subject, and point out what seem to me inconsistencies, if not actual errors. The following table was given by Mr. Lane in a lecture upon constitutional syphilis delivered in October of last year, and since then has been adopted as substantially correct by Dr. Broadbent in his Lettsomian Lectures:—

Secondary Syphilis.

Affections of Skin.—Erythematous—roseola; papular—lichen; tubercular—tubercles that may desquamate, ulcerate, or encrust; scaly—psoriasis, lepra; pustular—ecthyma.

Affections of Mucous and Semi-Mucous Membranes.—Superficial white aphthous-looking ulcers on the tonsils, soft palate, and fauces; superficial ulcers on the sides of the tongue and angles of the mouth; mucous tubercles, or condylomata, on semi-mucous surfaces; deep excavated ulcers of tonsils.

Iritis; muscular pains; arthritic pains; pains in bones; periostitis; nodes.

Tertiary Syphilis.

Inflammation of Fibrous Membranes.—Periostitis resulting in nodes; caries and necrosis of bone; affecting fibrous tissue of joints—arthritis; fibrous tissue of testicle—orchitis; fibrous tissue of globe of eye—sclerotitis.

Affections of Skin and Mucous Membranes.—Rupia; cachectic ulcers of skin; rapid ulceration and sloughing of the soft palate, fauces, pharynx, and larynx; of the rectum, vagina, nymphæ, and labiæ.

Deposits of Fibro-plastic Lymph, imperfectly organised.—In the areolar tissue (subcutaneous or sub-mucous tubercles); in muscular tissue, more frequently met with in the tongue, and occasionally in other muscles; also met with as post-mortem appearances in the liver, spleen, kidneys, lungs, and other viscera.

Lardaceous and Waxy Deposits.—Occasionally found in the post-mortem examination of the bodies of persons of dissipated habits.

In criticising this arrangement, the first thing to be noted is that while periositis and iritis are mentioned as among the secondary affections, the former is given again among the tertiary. Again, inflammations of the fibrous membranes are stated to be limited to the tertiary form of the disease, whereas it is much more rational and convenient to regard them as altogether of a secondary character, the tertiary equivalents of the various lesions named in the table being caries and necrosis, syphilitic sarcocele (from gummous exudation into the body of the testicle), and destruction of the globe of the eye (not sclerotitis) from the same cause. In the second place the arrangement of skin affections follows no definite rule, and it is wrong to rank ecthyma as a secondary affection and rupia as a tertiary manifestation, inasmuch as rupia often leaves ecthyma behind it. Again, it is misleading to speak of rapid sloughing and ulceration of the soft palate as a special feature of tertiary syphilis. Ulceration of a rapid kind is an occasional symptom of secondary as well as of tertiary syphilis; the former, however, is preceded by symptoms of inflammatory action from which the latter is free. It is not unusual for a patient suffering from secondary throat mischief to fall into a cachectic state of health, when the ulceration, before slight and slow, may assume terrible proportions, and destroy the soft palate like a fire; whereas when rapid sloughing of the soft palate takes place in tertiary syphilis, the tissue rather sphacelates *en masse* from denutrition than melts from excess of inflammatory action. In Mr. Lane's table, again, the gummata are simply spoken of as deposits of fibro-plastic lymph, which no doubt they are, but the reader is not informed whether they are ordinary inflammatory exudations, or quite peculiar products, as they really are in the sense that tubercular and cancerous products are peculiar. In a word, inflammation

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is not one of the facts of tertiary syphilis, and its existence may be regarded as proof of the secondary character of any individual symptom. By thus limiting tertiary syphilis to narrower boundaries, as the classification which I suggest tends to do, it yet appears that pathology gives us a real and practical means of dividing the disease into its three stages, the divisions being as follows:—

1. *Primary Syphilis:* Including the initial lesion and the primary glandular engorgement.

2. *Secondary Syphilis:* Including all inflammatory syphilitic affections, whether of skin, mucous, serous, or fibrous membranes, glands, or viscera.

3. *Tertiary Syphilis:* Including all syphilitic affections dependent upon the exudation of a gummy or amyloid material, whether in a diffused or circumscribed form, and which may give rise either to visceral or other deposits (gummata), or, by interfering with nutrition, may produce destruction (caries, necrosis, softening, sphacelus) of the part affected.

This classification does not specifically allude to the syphilitic cachexia as an essential part of tertiary syphilis, and I think discreetly so, for the cachexia, which is perhaps due to a destruction of red blood-cells, may be present in the secondary stage, and again is not universally encountered in the tertiary period.

Proposition II.—Tertiary Syphilis is Directly Transmissible.

The evidence which I have to bring forward in favour of this proposition is at present insufficient for demonstration, but having some facts which favour this view, I nevertheless state it, because I think its adoption or rejection has an important bearing upon the question of treatment, and upon the right to marry. If it be proved that in tertiary syphilis the poison is still active, and that tertiary syphilis is not a mere sequel of a preceding disease, then it is probable that the remedy or remedies found serviceable in the earlier periods will prove valuable in this its latest stage. The evidence which I have to adduce is the following. Last year I inoculated a rabbit with small portions of a gummatous tumour which was situated in the calf muscles of a man who was at the time under my care. I killed the rabbit three months later, and found that indurations existed at the site of the old inoculations, and that there were similar deposits in the lungs. Of course it may be said that it was tubercle and not syphilis which was produced in this case, and this may be so; but although I am now undertaking a series of experiments to determine this point, this case is the only one at present which I am able to cite as bearing upon the question. There is, however, evidence of another kind which adds weight to my proposition. Thus, it is generally admitted that parents suffering from tertiary syphilis beget strumous offspring—which is but saying that the syphilitic poison is not sufficiently strong to reproduce itself, but has vitiated the blood sufficiently to determine the production of a strumous stock; and thus struma (rightly, as it seems to me) comes to be looked upon as a sort of bastard syphilis, or, better, as the quaternary form of the disease. Occasionally, however, the children exhibit more direct traces of having inherited the specific poison. I have at present under my care at the infirmary a woman suffering from tertiary syphilis—necrosis of tibiæ, etc.,—who since she has been thus suffering has given birth to a boy. This child is also under my care with interstitial keratitis and osteal and periosteal enlargement of the shafts of both tibiæ, which threaten to become necrotic. His condition has improved under the administration of hydrargyrum cum cretâ, though it must be stated that along with this he has taken cod-liver oil and Parrish's chemical food. It seems probable that the reason why tertiary syphilis is generally regarded as not being directly transmissible is due to the fact that the various tertiary lesions rarely furnish any available secretion which can be received through the usual channels. The very situation of the lesions would render it difficult to communicate the disease from one person to another, even if the attempt were made. It is very likely this which constitutes the difference between the inoculability of the secondary and tertiary form of the disease. It will be an interesting point for future observation to determine, in cases where tertiary syphilis is transmitted, say to the rabbit, whether the transmitted disease assume the tertiary type *ab origine*, or whether it ever in the virgin soil travels through the previous stages of the malady.

Proposition III.—Mercury is the True Remedy for Tertiary Syphilis.

The formula commonly adopted is that mercury is the remedy for secondary syphilis, particularly for the earlier manifestations, mercury and the iodides for late secondaries, and the iodides alone for tertiary syphilis, mercury being positively baneful. I venture distinctly to dispute the accuracy of this formula, on the ground of practical experience, and to affirm that, except perhaps in cases of extreme bone-mischief, mercury may be so administered as not in any way to impoverish the blood or injure the constitution, but with the sole effect of acting as an antidote to the syphilitic virus. I am pleased to find that I am supported in this opinion by the large experience of Professor Lewin, who, in his work on the treatment of syphilis, gives several cases of tertiary syphilis which were cured by the administration of mercury, and by this alone. I do not for one moment deny or decry the value of the iodides, of sarsaparilla, of cod-liver oil, in our treatment of tertiary syphilis—indeed, I am in the habit of employing all these remedies; and everyone has had experience of the almost magical influence of iodide of potassium upon some bone affections,—but my conviction is that by these means relief only from present symptoms is afforded; that they perhaps act by improving the general health, and so mask and help to keep latent the syphilis; that, in a word, they may scotch, but do not kill the snake.

I am constantly in the habit of treating tertiary syphilis—affections of the bones, gummata of the tongue or beneath the skin—with mercury, taking care of course never to salivate, with the result of causing a subsidence of symptoms as quickly as with the iodides, and with a much brighter hope of the symptoms being finally banished, never to reappear, as they are almost sure to do after simply giving iodides. It is of course essential to keep up the health to the best possible pitch during the treatment, and for this purpose sarsaparilla (a pint a day if the patient can afford it) and chlorate of potash are both invaluable; but still mercury is the remedy to which we must trust to *cure* the disease.

The mode of administering the mercury is important. The internal exhibition of the drug is frequently ill borne, but either the mercurial vapour-bath or wearing a mercurial belt answers very well. Of the two, the belt is the most uniformly successful in these cases, as exhausting sweating sometimes follows the use of the bath. Neither inunction nor subcutaneous injection are admissible; indeed, I regard the latter plan from pretty extensive experience as eminently objectionable, being liable, in spite of the favourable testimony of Lewin and others, to produce alarming constitutional symptoms and troublesome local sloughing. I have also found that cases of secondary syphilis, treated with the subcutaneous injection, are (probably from the small quantity of mercury employed and the very rapid *apparent* cure) more prone to relapses than cases treated with mercury on the other plans. This, however, is in itself an interesting and important subject, to which I may, perhaps, have an opportunity of returning on a future occasion.

Case of Transfusion.—Dr. Molinier, Surgeon to the Hospital at Dreux, relates the case of a woman aged forty-three who had long suffered from abundant hæmorrhages, due to fibrous tumours of the uterus. At the beginning of last April one of these attacks reduced her to the lowest point, so that death seemed absolutely imminent. Transfusion was performed with Moncoq's apparatus, sixty grammes of blood being furnished by the son of the patient. The operation was hardly completed before the colour returned to her lips; and at the time of reporting the case, the forty-fourth day, the patient was able to go out for a drive.—*Gazette des Hôpitaux*, May 26.

Medical Schools and Graduates in the United States.—According to Dr. Toner, there are 101 medical teaching bodies, classified as follows:—Regular medicine, 77; of which 6 teach pharmacy; homœopathic, 8; dental, 8; eclectic, 6; and botanic, 2. The annual accession through the American colleges is—doctors of medicine, 1698; *ad eundem* degrees, 79; honorary, 16; and 5776 matriculants attending college. He says that if the returns were complete from all the colleges, they would probably give 2000 graduates, and perhaps 6500 in attendance on lectures. The whole number of the medical profession of the United States is 62,383.—*Cincinnati Lancet.*

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REPORTS OF HOSPITAL PRACTICE IN MEDICINE AND SURGERY.

SURGERY.

EXCISION OF THE HIP-JOINT.

We report below the notes of four cases of excision of the hip-joint for disease, which we have quite recently had the opportunity of witnessing. Three of the operations, as will be observed, were performed by three different surgeons at the same hospital (the Middlesex), and all these were done on the same day; while the fourth occurred at Guy's Hospital about eight or nine days afterwards. It struck us as being a little remarkable to see four operations for excision of the hip within so short a time, even in different London hospitals, and we were led to ask the question how far this frequency was a mere coincidence, or whether it was an indication of extension of the operation to a greater number of cases of morbus coxæ. To ascertain this point we referred at once to the tables of operations in the recent hospital reports of the two hospitals at which we had seen the cases recorded below; for it seemed fair to conclude that if excision of the hip-joint was becoming much more frequent in hospital practice, these reports would in all probability show an increased number yearly.

Such was not, however, the result of our reference, as the following figures will show:—At Guy's Hospital (we quote from the tables in the reports) in 1869 the hip-joint was excised four times, in 1870 only once, in 1871 four times, in 1872 three times, and in 1873 only twice. At the Middlesex Hospital, as we learn from the last five consecutive reports, the number of excisions were—for 1868 two cases, for 1869 one case, for 1870 three cases, for 1871 four cases, for 1872 two cases. Further, on referring to the statistical reports of St. Bartholomew's Hospital for the years 1869 and 1870, we do not find excision of the hip-joint at all amongst the operations performed in either of those years; while in the last report of Charing-cross Hospital, which is now lying before us, excision of the hip is mentioned as having been performed three times during the year 1873.

Although the frequency with which the operation is now practised was never dreamt of by "the Whites," and has probably outstripped the cautious and early anticipations of the resuscitators of the operation of thirty years ago, it has now apparently reached a settled and definitely located position in the treatment of morbus coxarius.

Experience has long ago shown that the early objections—viz., hæmorrhage, and the impossibility of manipulating disease of the acetabulum, with the frequency of the disease in this situation—have no real existence. The method of exposing the upper end of the femur employed in all the cases now reported was simple—a straight or slightly curved incision, with the concavity downwards and forwards, three inches or more in length, along the back of the great trochanter being the only one required. In this way, and by dividing the bone before attempting exarticulation, if this had not been effected by the disease, the interference with the soft parts and the risk of hæmorrhage is of the slightest degree.

THE MIDDLESEX HOSPITAL.

We are indebted to Mr. Arthur Tomes, House-Surgeon, for notes of these cases:—

Case 1.—*Hip-Joint Disease—Excision of Head of Femur.*

(Under the care of Mr. DE MORGAN.)

John H., aged 7, was admitted into the Percy ward on March 13, 1874, a few days after an abscess had formed on the upper and outer part of the left thigh. The abscess was opened soon after admission, and the signs of morbus coxæ at once became evident, though at this time the head of the femur was not displaced. Fresh abscesses occurred, and were followed by sinuses which would not heal, and from which a considerable amount of discharge escaped. No great pain was at any time suffered. The De Morgan splint was kept applied, and the operation of excision postponed as long as possible; but at last its necessity became absolute, owing to the progressive weakness and exhaustion the disease was producing. A fresh abscess in the groin had formed. Ether having been administered, Billroth's incision was made, and the head of the bone, which was found lying upon the dorsum of the ilium, was removed by sawing through the great trochanter. A large drainage-tube was inserted deeply into the bottom of the acetabulum, and allowed to project from the lower angle of the wound; the edges of the wound were brought together by a few sutures; and the whole was covered by a layer of carded oakum. Finally an extension-splint (De Morgan's) was applied immediately after the patient was removed back to bed.

On examining the removed parts, the head of the bone was found to be to a great extent deprived of cartilage, only a narrow rim of it being left upon the upper portion; this, however, was microscopically healthy. The articular bone from which the cartilage had been detached was of a dirty-pink colour, and was much softer than normal. The acetabulum was the seat of advanced and considerable disease, and in one spot was perforated.

Case 2.—*Hip-Joint Disease—Excision of the Head of the Femur.*

(Under the care of Mr. NUNN.)

Frederick J., aged 8, who was admitted into the Hospital on April 28, had received a slight injury to the hip six months previously. Symptoms of morbus coxæ gradually followed, and pain in the knee- and hip-joints, with lameness, gradually increased. There were no sinuses or abscesses, but there was considerable distortion.

Mr. Nunn said that although the case about to be brought into the theatre had but recently been admitted into the Hospital, he was satisfied from the appearance of the child there was no hope of spontaneous cure; and even if anchylosis were reasonably to be expected, the limb had assumed such a position—the one so common in advanced morbus coxæ—that it would be a very doubtful advantage for which to wait. It was not clear in this case whether the head of the femur was dislocated; but non-dislocation, while it added somewhat to the difficulty of the operation, was not a condition nearly so troublesome as one of partial anchylosis, such as is met with where, after the most promising evidence of a subsidence of acute disease, fresh inflammation is induced by some accident or by too much movement of the limb having been permitted. Mr. Nunn observed that when excision of the hip-joint (some twenty-five or twenty-six years since) began to be practised, it was regarded as a very dangerous and scarcely justifiable operation; now, on the contrary, there was no hesitation in resorting to it. Thus, for example, there were down on the list of operations that day three cases of excision of the head of the femur. Looked at from a dissecting-room point of view, the operation would appear sufficiently complicated; disease, however, induced such changes in the parts that, where dislocation of the head of the femur had taken place, the operation was exceedingly simple. One point of great importance he believed was the avoidance of violent movement of the limb during the operation, thereby preventing the rupture of any of the contracted muscles—a violence that necessarily would add greatly to the risk of the operation.

Case 3.—*Hip-Joint Disease, with Anchylosis and Abscess—Excision of Head of Bone.*

(Under the care of Mr. HULKE.)

F. G. N., aged 19, an anæmic, unhealthy-looking young man, was admitted into Forbes ward on March 6, 1874, with an affection of the left lower limb. The account he gave of the disease was as follows:—About Christmas, 1873, ten weeks before admission, his attention was first drawn to the fact by pain on moving the leg, followed shortly by some swelling on the outer side, which steadily increased. Twelve years ago he injured the hip on this side in a fall, and was lame for a time, because (he says) of having anchylosis, and attended as a patient at University College Hospital for five or six years, wearing "leather splints." Four years ago an abscess formed on the outer side of the thigh, which was opened, and eight ounces of pus escaped.

On admission the hip- and knee-joints were both contracted (as they have been, he says, for twelve years), and the whole limb wasted, there being apparently bony anchylosis of the left hip-joint.

A month after admission an abscess formed on the outer side of thigh below trochanter, and soon after another in the gluteal fold on same side, and after an interval of a few weeks a third formed on inner side of the thigh. This latter was opened, and from it escaped some very fetid pus. Meanwhile the patient was suffering severely with pain and sleeplessness.

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He was stimulated by carbonate of ammonia and wine, and quieted by anodyne at night, but gradually was sinking under repeated exacerbations of irritative fever and pain.

On April 30, about eight weeks from admission, the patient was placed under ether and the joint examined. It was found to retain slight mobility, but no grating of bone was detected. The sinuses were laid open.

Very little benefit being derived from this operation, ether was now again administered, and Mr. Hulke having made a semicircular incision over the trochanter, exposed the latter and cut across the neck of the bone just below it; but on account of there being very strong fibrous adhesions connecting the head of the bone with the acetabulum, this could not be turned out, and was removed piecemeal with curved bone-forceps and sequestrum-forceps.

Just opposite the situation of the sinus on the outer side of the thigh was found an abscess-cavity running downwards towards the medullary cavity; and lying at the bottom of the acetabulum, in the situation of the insertion of the ligamentum teres, was a loose sequestrum.

Immediately after the operation, and before the patient left the theatre, the thigh was placed in a straight position—as far as was possible, that is, with the degree of contraction of the knee-joint that existed,—and a De Morgan's extension-splint applied.

GUY'S HOSPITAL.

Case 4.—Excision of Hip-Joint.

(Under the care of Mr. DAVIES-COLLEY.)

The patient was a delicate little girl, five years of age, who one year ago injured her right hip by a fall downstairs. Since that time she had suffered from pain in the hip which had confined her to bed, with the exception of a short interval during which she was able to get about with a crutch. The thigh was flexed to less than a right angle, adducted, and admitted of very little movement, active or passive. There was a sinus about four inches below and two inches in front of the great trochanter.

Chloroform was administered, and an examination made of the diseased joint. It was then found that the head of the femur was dislocated backwards on the dorsum ilii. No grating was produced by movement of the joint. As bare bone was readily felt on introducing a probe through the sinus, Mr. Davies-Colley decided to excise the head of the femur. For this purpose he made a vertical excision two inches and a half long, from a little above the great trochanter along its posterior border, and, having laid bare this portion of the bone, detached, by means of a scalpel and raspatory, the periosteum and soft parts in the vicinity. The femur was then sawn through, nearly an inch below the upper border of the great trochanter, by means of a small saw such as is employed in subcutaneous section of the neck of the femur. Mr. Davies-Colley then cut through some fibrous tissue which bound down the head of the femur upon the dorsum ilii close to the posterior border of the acetabulum, and removed with a forceps the head, neck, and upper portion of the great trochanter of the femur. The greater part of the articular surface of the head was still covered with loosely adherent cartilage. The bone was healthy, with the exception of a deep cavity with uneven walls which occupied the anterior aspect of the neck and great trochanter. The acetabulum was in parts bare, and near its centre there was a deep depression admitting the tip of the finger but not penetrating into the pelvis. No loose fragments of bone were found. After gouging away a part of the surface of the acetabulum, the cavity of the wound was filled with antiseptic gauze soaked in carbolic acid and oil, and then all was covered with a thick layer of the same gauze. Provision was then made for keeping the limb at rest by means of extension with a weight. The operation was performed under a spray of dilute carbolic acid.

Mr. Davies-Colley advocates early operation in cases of hip-joint disease where sinuses or large abscesses have formed. There is less probability of finding the acetabulum extensively diseased; and in addition to the advantage obtained from the removal of the greater part, if not all, of the diseased bone, a free dependent opening is made, by which an effectual drainage is secured, and the burrowing of pus among the muscles prevented. He endeavours as far as possible to avoid injury to the soft parts during the operation. The ordinary method of making a long incision, and turning out the upper extremity of the femur through the opening thus made, is not unfrequently followed by abscesses among the muscles on account of the violence required to effect that object. Mr. Davies-Colley makes an incision of moderate length (three inches or less) along the posterior border of the great trochanter, and, with a small saw, saws through the bone before taking out the head. It is then easy to divide the ligamentous and muscular attachments of the rest of the upper part of the femur, and to remove it with very slight disturbance of the tissues around the joint.

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Medical Times and Gazette.

SATURDAY, JUNE 6, 1874.

THE SCOTTISH UNIVERSITIES AND THE SOCIETY OF APOTHECARIES.

The judgment pronounced on May 22, 1872, by Mr. Macnamara in the case of Stevenson *v.* Gliddon has come to be regarded in legal circles as the correct decision in cases in which medical men not licentiates of the Society of Apothecaries sue for attendance and medicines. He decided that notwithstanding the alleged clearness of the 31st clause of the Medical Act, a graduate of a Scotch university (who in this particular case was, in addition, a member of the Royal College of Surgeons, England) could not sue for medicines, because he did not hold the qualification of the Society of Apothecaries. In June, 1872, a similar decision was given in the case of a Doctor of Medicine and Master of Surgery of a Scottish university; and last month a London county court judge, influenced by Mr. Macnamara's judgment, struck £7 7s. 6d. off a bill of £15 9s. claimed by an M.B. and C.M. of Edinburgh for attendance and medicines. When Mr. Macnamara's decision was published in 1872 it caused considerable astonishment amongst medical men, as it had been generally understood that the passing of the Act of 1858 had abolished the monopoly of the Society of Apothecaries with regard to the practice of pharmacy. The decision of the learned judge was criticised closely, and the 31st clause of the Medical Act quoted against it with every appearance of success. Still, the judgment remains as a precedent which other judges accept as decisive

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Mr. Macnamara expressed the opinion that the Act of 1858 did not repeal the Act of George III., providing that persons practising as apothecaries without the diploma of the Society of Apothecaries were liable to penalties and disabled from recovering fees. In our opinion he regarded the Act too exclusively as a Registration Act, when registration was only one of the objects which were aimed at in its construction; and yet when the 31st clause of the Medical Act of 1858 is closely examined, it is certainly found that the wording of it goes far to support Mr. Macnamara's decision. The words are—"Every person registered under this Act shall be entitled according to his qualification or qualifications to practise medicine or surgery, as the case may be, in any part of her Majesty's dominions, and to demand and recover in any court of law, with full costs of suit, reasonable charges for professional aid, advice, and visits, and the cost of any medicines or other medical or surgical appliances rendered or supplied by him to his patients."

By emphasising the latter part of this extract the general opinion would go against Mr. Macnamara's decision, but by laying stress upon the words "according to his qualification or qualifications," the burden of evidence appears to incline to the other side. The insertion of these words seems to imply that the 31st clause aimed at the provision of an improved means of securing the rights of medical graduates according to their several qualifications, rather than at the extension of these privileges in such a direction as would throw the practice of pharmacy open to any medical practitioner who cared to enter upon it. The only other evidence which is available in the discussion of the question is the apparent intention of the promoters of the Bill. As far as regards the 31st clause, the intention of the promoters is quite as ambiguous as the wording. Originally there were three Bills before the House—Mr. Cowper's, Lord Elcho's, and Mr. Duncombe's. With regard to three things their promoters were unanimous. What they all aimed at was (1) improved means and methods of education, (2) an authoritative system of registration, and (3) "the removal of all those local jurisdictions which restricted a competent man from practising in any other part of the country than that in which the licensing body which passed him had authority." These were Mr. Cowper's words; and Mr. Walpole, acting for the Government, took Mr. Cowper's Bill under his protection. But the catholicity of Mr. Cowper's statement was negatived by an observation of Mr. Walpole's during the same debate. He could not agree with Lord Elcho's proposal to give to every registered licentiate in medicine and surgery a right to practise in medicine, surgery, midwifery, and pharmacy in every part of the United Kingdom. So that, however much the wording of the 31st clause may appear to support the idea that the monopoly of the Society of Apothecaries in the practice of pharmacy has been abolished, it was certainly not the intention of the Government that the clause should have that meaning. From this point of view, if the Bill had been a Government measure, Mr. Macnamara's decision would have been unimpeachable; but as the clause passed apparently without any discussion, we have no means of determining what rendering of it would best express the intentions of the promoter of the Bill and the House of Commons with regard to the general practice of pharmacy.

If qualifying bodies desire to have the monopoly of the Society of Apothecaries abolished, perhaps the matter would be one of no great difficulty, but as far as regards the Edinburgh University, at least, it is not improbable that there is a tendency to concur in Mr. Macnamara's decision.

The University authorities seem inclined to think that the disability to practise pharmacy profitably may keep up the character of their degrees. It is evident, however, that if the students at Edinburgh University should continue to increase at their present ratio, it will be impossible for them all to make a living without dispensing their own medicines. Students should be given to understand that they cannot in England legally recover for medicines unless they are licentiates of the Society of Apothecaries. It is well that they should know this in time, so that they may not be under the necessity of recurring to examination work after they have been two or three years in practice, for the purpose of adding the qualification of the Society of Apothecaries to the number of their diplomas. Perhaps, also, it would be wise on the part of the Scottish universities to consider the advisability of endeavouring to have it determined that their degrees should qualify graduates to practise all branches of the profession. Scotland is a nursery of physicians and surgeons, and the universities ought to consider what are likely to be the professional requirements in after-life of those who prefer their methods and means of education, and feel a justifiable pride in the possession of their degrees.

THE INTERNATIONAL CHOLERA CONFERENCE.

For some months past there has been a rumour that a Conference would be assembled, at some convenient point on the Continent, during the approaching summer, to reconsider the conclusions of the International Sanitary Conference on Cholera, held at Constantinople in 1866. The great attention bestowed on this subject since that date has led to considerable development of the natural history of the disease, and the experience gained from its recent course in Europe has induced a material modification of opinion, even among the most strenuous supporters of the views promulgated at Constantinople. Our readers may have seen in our number for the 23rd ult. (p. 564) a notice from the *Eastern Budget* that the Conference alluded to was to meet in Vienna next month, and that the points to be submitted for discussion were already formulated. After perusing these, many may entertain the hope that we are about to have the obscurities surrounding the mode of propagation of cholera removed, and the means for preventing its inroads into fresh localities clearly defined. To prevent disappointment, however, we think it well to offer a few words of caution, to warn the more sanguine not to look for results from the deliberations of the Conference which these are not calculated to afford.

An International Conference is composed of delegates accredited by the governments of the various nations which join in it, and its object is to arrive at a common agreement on some point or practice in which they, respectively, are more or less interested. Delegates must, therefore, carry from their respective governments instructions fixing the limits within which they are to act; and, as the interests and views of these vary materially, a common agreement can only be attained, as in the matters of ordinary life, by those holding opposing views conceding to each other until they arrive at something that will meet with general assent, should their instructions allow them to go so far. Such meetings are of great use in many ways; in removing or lessening impediments to that free international communication which has extended so largely under the application of steam to the purposes of locomotion and trade—in establishing common methods of observation, and of recording facts, which the wants of modern research have shown to be necessary or desirable. We are therefore far from regarding them with hostility, or even indifference, while their functions are confined to points which may fairly form the subject-matter for their deliberations; but, on the other hand, we must be careful not to accord to them attributes they do not possess, and, in this spirit, to receive their findings as a scientific establishment of the questions these involve, and not merely as an international agreement of a temporary nature, that may, with the advance of our information, require

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to be materially modified, or even abandoned. A moment's consideration will show that a conference is not a body for the determination of points of science. These are not to be limited by the interests or views of national governments; the only way of deciding them is by carefully studying the phenomena of nature, and adopting no conclusion not in accordance with these. It may be said that the men selected by the respective governments to attend the Conference have already prepared themselves for the task by making this preliminary study, and, no doubt, each would send delegates who had given attention to the subject; but, when we recollect the variety of opinions held as to the manner in which cholera is propagated, and consider that these are but so many modes of explaining certain facts, often involving assumptions of which there is no scientific proof, and which are found to be opposed to other facts, it will be seen that these delegates have not the materials for the formation of an opinion such as might claim general assent.

The Constantinople Conference committed itself to the fallacy that cholera originated in the Delta of the Ganges in 1817; and from this it was led, almost irresistibly, to conclude it was transmitted from thence to the rest of the world through the agency of man, and all its explanations of facts naturally harmonised with these ideas with which it started. If we may anticipate the position to be taken up by the forthcoming Conference at Vienna, from the published questions to be submitted, while they avoid the error of assigning a place and date for the origin of cholera, they still seem likely to fall into another—viz., confining its origin to India, which is difficult to reconcile with what we now know of the history of the disease; and this step, as in the case of the previous Conference, will go far to influence all their explanations of facts, and keep their deductions, therefore, very much in the same groove. That their labours will result in recommending a relaxation of the rules adopted by the Constantinople Conference seems probable from the change of opinion already noticed, and that they may exercise a beneficial influence on those nations which place implicit confidence in strict quarantine to exclude cholera is very likely; but we do not expect them to place the causes of cholera in a clear light, nor to establish definitive rules for its prevention.

ANOMALY AND INJUSTICE OF THE ADULTERATION ACT.

In the Court of Queen's Bench sitting *in banco* on Monday last, a case of great importance under the Adulteration Act was disposed of by the judges. The question to be decided was "whether the sale of any article as tea which is adulterated can be excused on the ground that it is known to be so in the trade." The Act says "that every person who shall sell any article of food or drink with which, to his knowledge, any ingredient injurious to health has been mixed, and every person who shall sell as unadulterated any article of food or drink which is adulterated, shall for such offence be convicted." It appeared that the appellant was a grocer at Birkenhead, who sold two ounces of "green tea" as genuine, the purchaser informing him that it was bought for the purpose of analysis. The analyst reported that it was adulterated by a thick facing of mineral matter and Prussian blue; that it was "faced" with gypsum and Prussian blue for the purpose of colouring it; and this was the adulteration charged. The seller had not in any way interfered with the tea, and sold it in the same state in which it was imported. The analyst produced specimens of green tea which were neither painted nor faced. It was further proved that the green tea imported from China, and generally known as such in the tea trade, is painted and faced. The samples which were not adulterated came from Japan, and were not known generally as green tea. It was contended, on the part of the vendor, that the article imported into this country as green tea is painted or faced, and that it is not a natural simple production of nature; that the painting or facing was done by the Chinese; and that painting or facing tea for the purpose of colouring it was not an adulteration within the meaning of the Act. The magistrates, however, thought otherwise, and were of opinion that the facing or painting, though known to the trade, was not known to the public. To sell such an article to a purchaser who asks for green tea was the sale of an adulterated article as unadulterated, and they accordingly convicted the vendor. Now, was the tradesman properly convicted? The case was argued at considerable length, and a conversation was carried on between the judges. The points raised before the magistrates were again brought forward, and argued by the counsel on either side. Eventually the judges gave their opinions, and we insert at length that of the Lord Chief Justice, as the question is one of the utmost importance, and affects not only the public, but clearly the vendor of drugs also. There can be no doubt that, according to the strict letter of the law, the tradesman was legally convicted; but how will this stop the sale of the adulterated article? It seems a monstrous injustice that Government should permit the importation of an adulterated and pernicious article, and then proceed against a tradesman for vending that very article. It is evident we are only in the infancy of legislation with respect to adulteration, and that things cannot be allowed to remain in their present unsatisfactory and anomalous condition. The Lord Chief Justice, in giving his judgment that the conviction was right, said:—

"I cannot help thinking, though my Brother Quain doubts, that this is a case of the sale of an article as unadulterated which is, in fact, adulterated. Is it adulterated? I think it is, for this process of painting is surely an adulteration. It is known in the trade that it is so, but it is not known to the customer. Further, it is sold to him as 'genuine,' for the tradesman here expressly warrants it as genuine green tea. It is not material upon this section of the statute whether the tradesman knew of the adulteration; but if it were material, I think it appears that the tradesman must have known of it, for it is known in the trade. It is stated that the tea which comes from China is very generally thus dealt with, but that will not excuse the seller under this enactment if he sells as genuine that which is, in fact, adulterated. This is an adulterated article; it is not the article the public think they are buying; on the contrary, if they knew what it was they would not buy it. Therefore, it is selling the adulterated article as genuine, and that is an offence within the statute."

Mr. Justice Blackburn and Mr. Justice Archibald agreed with the Lord Chief Justice. Mr. Justice Quain said he was sorry to differ from his brethren, but he could not think this an offence within the Act. Here was a small shopkeeper at Birkenhead convicted for selling tea just as it was imported by great merchants from China. He could not think that this was intended to be an offence under the Act. Practically, the shopkeeper sold the only article known as green tea, and he did not alter it at all, but sold it as he bought it—as the "green tea" of commerce. The conviction was affirmed.

PSEUDO-HYPERTROPHIC MUSCULAR PARALYSIS.

At the concluding meeting of the season of the Medical and Chirurgical Society, a paper by Drs. Lockhart Clarke and Gowers was read, on "A Case of Pseudo-hypertrophic Muscular Paralysis." Although a good many cases of the kind have been reported at different societies and in different journals, both at home and abroad since 1867, when a translation of Duchenne's manuscript on the subject was communicated to the Pathological Society of London, and although the symptomatology and clinical history of the disease has been pretty definitely and uniformly described, still this form of paralysis is not very generally known to

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practitioners, while some of the leading physicians of the day have been supposed to mistake it for infantile paralysis, and the friends of other patients have not been undeceived by their medical attendant when they have supposed the affection to be one of the spinal column. Nor can it be said that the pathology of the disease has hitherto been perfectly or exhaustively made out; and it was chiefly as a contribution to this side of our knowledge that the paper read on the 26th ultimo was of importance to the profession.

Dr. Duchenne had been studying the disease for eleven years prior to the translation of his manuscript by Dr. Lockhart Clarke, yet he did not attribute the paralysis to any nervous lesion. Immediately after Duchenne's observations were presented to the Pathological Society, other cases were reported at the same place by Mr. Adams and Dr. Hillier. About the same time, too, Cohnheim reported the result of his examination of the body of a child who had died of the disease, and whose case is described by Eulenberg. Dr. Langdon Down a little later (in 1870) exhibited two cases at the Pathological Society, which are described in the twenty-first volume of the Society's *Transactions*; and Mr. Kesteven published three cases associated with insanity, with remarks on the disease generally, in the *Journal of Mental Science* for 1870. None of these observers detected any change in the spinal cord to account for the conditions of the muscles.

Eulenberg and Cohnheim (as well as others) found that the electro-muscular contractility of the hypertrophied muscles was not destroyed. It was pretty unanimously agreed that the muscular fibres retained their transverse striæ long after they were reduced in size by the interstitial overgrowth of fibrous or fatty tissue, and that the fatty degeneration was outside the sarcolemma; but Cohnheim distinctly stated that he could discover nothing abnormal in the nervous and vascular systems. Knoll (*Wien. Med. Jahrb.*, 1872) described a case and gave the result of microscopic examination of the affected muscles, but considered it was impossible to decide whether the paralysis is due primarily to change of the muscles or to some affection of the central nervous system. Other observers have reported cases—for instance, Auerbach and Orsi, Heller and Seidel. So, also, has Barth, in "A Contribution to the Knowledge of Lipomatous Atrophy of Muscles" (*Arch. J. Heilk.*): the patient was a man forty-four years of age, who died, and thus gave an opportunity for a post-mortem examination. Barth has described certain changes in the spinal cord; so, too, has Mr. Kesteven. The latter found in the cord and brain, in one instance, spots of granular degeneration, varying in size and number in different parts. These spots were, as he has described, "irregularly scattered in the white substance adjoining the grey matter of the convolutions; very few are noticeable in the grey matter. . . . In the medulla oblongata and spinal cord they are also few and far between. . . . They are evidently spaces caused by loss of cerebral tissue, replaced by the morbid matter. Examined by a half-inch or quarter-inch object-glass, this matter is seen to be amorphous, colourless, and semi-opaque; it resists the carmine dye, so that it is readily distinguished from the surrounding structure. . . Throughout the brain and cord the cells of the grey matter retained their normal characters."

As the case from which the parts examined were taken was somewhat complicated, it probably explains for itself the reason why the results of Mr. Kesteven's examination did not receive the attention they deserved. That they did not is certain, as we find that paralysis pseudo-hypertrophica has since been described as a disease of the muscular system only. If the reader will refer to a paper by Dr. Davidson, of Liverpool, in the May number of the *Glasgow Medical Journal* (1872), he will find it stated that "the disease does not appear to depend upon any affection of the cerebro-spinal axis,—it has none of the characters of such affections"; and though the author puts himself on the safe side by saying, a little further on, that it may be that further investigations may discover that the nervous system is primarily involved, yet he adds, "but for the present we must look on the disease as one of the muscular structure. . . This degeneration of the muscles is the essential part of the disease." Yet Dr. Davidson reported three cases, and was evidently well posted up in the scanty literature of the subject. So, too, in article xvi. in the eighth volume of the *St. Bartholomew's Hospital Reports* (1872), Mr. Butlin speaks of the disease as one of the muscular system only. Again, Dr. Duchenne, in a communication to the *Gazette des Hôpitaux* of July, 1872, confirms his former researches which he related before the Société de Médecine de la Seine in 1868, and published in the *Medical Archives* for that year. This note is founded on the additional information obtained from five cases, and from it we learn that the cord, brain, and cerebro-spinal meninges were all healthy. Numerous sections of the cord of one of the cases, taken from the cervical and dorsal regions, were prepared by a pupil of M. Charcot, but they all presented healthy appearances. Duchenne adds that the state of the muscles in pseudo-hypertrophic paralysis is not to be regarded as symptomatic of any appreciable lesion of the nervous centres, nor does it correspond to atrophy of the anterior cells of the cord, as do the lesions of muscular nutrition observed in certain other paralytic affections.

Another view, expressed since the publication of Kesteven's case, is that of Dr. Wm. Miller Ord, who, in a paper read before the Medical and Chirurgical Society on October 26, 1873, infers that the origin of the disease must be looked for in the sympathetic or ganglionic nervous system, as "no morbid appearances had been detected in the brain or spinal cord characteristic of the pseudo-hypertrophic paralysis."

We see, then, that with the exception of Barth and Kesteven no one has described or discovered any changes in the great nerve-centres in this disease, and that the discoveries of these observers have not received much attention. Dr. Lockhart Clarke's paper will therefore supply a distinct era in the pathology of pseudo-hypertrophic paralysis, and will doubtless lead others to make very careful examinations of the spinal cords of such cases.

There seems no reason to suppose that the case referred to in this paper was in any way exceptional, although extremely advanced. Moreover, Dr. Clarke implied that from his examination of the cord of another case he had satisfied himself four years ago that there was granular degeneration of its structure.

The question, indeed, was asked, whether, considering the absence of observed changes in the cord in previous reported cases, and their presence in this very advanced one, the authors thought that any doubt was thrown upon the opinion that in cases of progressive muscular atrophy the changes found in the cord preceded and induced those in the muscles. To this Dr. Clarke replied that the hypothesis of disease of the spinal cord occurring as a consequence of changes in the muscles, once pretty general, has now been abandoned.

The changes discovered by Dr. Clarke are of a different nature and of a much greater extent than those described by Mr. Kesteven, to which we have referred above. The most important were atrophy of nerve-cells and disintegration of the grey substance of the anterior cornu and central portions of each lateral half. In the cervical enlargement especially, but also in the upper part of the lumbar enlargement, they involved extensive areas; and about the level of the last dorsal nerves, the grey matter on each side, between the posterior vesicular columns and the intermedio-lateral tract, was almost totally destroyed. There was, besides, partial disintegration of nerve-roots, with some sclerosis of the lateral and posterior columns, and in places some destruc-

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tion of the white commissure. Here and there exudation matter or extravasated blood surrounded the vessels, some of which were dilated. The brain, medulla, and membranes were normal.

Such are some of the anatomico-pathological facts now related. They serve, no doubt, to account for the paralysis, although, to our minds, they do not explain the alterations in the muscles. Perhaps the "compensatory theory" of the hypertrophy of those muscles which are most required for supporting the erect posture of the body is true so far as it goes, but it is not sufficient to explain the hypertrophy in such cases as that under Dr. Bergeron. The equinism no doubt is the result of the increase in the width of the gastrocnemii and soleus, caused by the interstitial deposit amongst their fibres, the fibres themselves remaining of the same length; while the inability to rise from the stooping posture, without assistance from the hands and arms, is due to the weakness, *without hypertrophy*, of the front and inner muscles of the legs and thighs, which muscles are required to steady the joints in the act of rising.

The observation of the changes in the cord by Dr. Lockhart Clarke is a guarantee of the accuracy of their description; while their discovery places pseudo-hypertrophic paralysis amongst the large class of neuroses, and adds another to the many valuable contributions to our knowledge of the normal and abnormal conditions of the spinal cord for which we are indebted to Dr. Clarke.

AMENDMENT OF THE REGISTRATION ACTS AMENDMENT BILL, 1874.

THE Council of the Statistical Society have issued the following in respect to the amendment of the Registration Bill of 1874. They are in the main practical and useful suggestions, and would improve the Bill now before Parliament. With respect to the first four paragraphs, there can be no doubt that a shorter time is required than at present obtains in which to register births and deaths. The longer the time allowed, the more facility is given to fraud, and even to crime. Carrying out the proposal in the fifth paragraph would do much to prevent infanticide. With respect to paragraph 6, we agree with the proposition. We believe that a practitioner has no legal right to charge for a certificate, though he is not compelled by law to give one. With respect to paragraph 7, we should prefer in every case in which there is no medical attendant to certify to the cause of death, that a coroner's inquest should be held, as the most effective way of checking illegal practice and preventing crime. With the eighth and ninth propositions we cordially agree.

"1. The period of forty-two days allowed for an informant to give notice of a birth to the registrar is unnecessarily long. In the Registration Bill submitted to Parliament by her Majesty's Government in 1872, but withdrawn, it was proposed to make this limit *one month*, which is sufficient for all practical purposes.

"2. Provision should be made for giving an increased value to the registration certificate of birth, by enacting that when the information of a birth is accompanied with the production of a certificate of attendance at birth supplied by a qualified medical practitioner, or by a recognised midwife, the registrar should be instructed to add the words 'Certified by ————,' after the name and address of the informant in the eighth column of the register.

"3. It is essential for the purposes of the mortality returns that every death should be registered as promptly as possible, and therefore the proposal to allow the registrars a maximum limit of *one month* within which to complete or require the completion of a death registration, will most seriously affect the sanitary statistics of the country, to which the Public Health Act of 1872 gave increased importance.

"4. No burial should be permittted without the production to the officiating minister at the interment of a registrar's certificate that the death has been duly registered, or that notice of the death has been received by the registrar from the proper informant; in inquest cases a coroner's order for burial will suffice.

"5. Clause 18 interposes no proper safeguard against the burial of live-born children as still-born. Under the clause (as under the existing law) still-born children may be buried with the cognisance of the registrar. In the Bill of 1872 (clause 19) it was proposed to enact that no still-born child should be buried without a registrar's order for burial, to be issued under certain conditions. This clause is much to be preferred to the clause 18 in the present Bill. There should be, however, a provision that the registrar shall enter in a separate register book the particulars of every still-birth in respect of which he issues a burial order.

"6. As it is proposed to render the certification of causes of death obligatory upon the medical profession, it should be enacted in clause 19 that medical men should be legally entitled to charge the families of their deceased patients for such certificates as for other medical services rendered. At present it is doubtful if such legal right of charge exists.

"7. As regards deaths, where there is no medical attendant to certify the cause and no inquest is held, the medical officer of health should be required either by himself, or by the poor-law medical officer as his deputy, to visit the body, and either to certify the cause of death according to the appearances of the body and the evidence of the persons about the deceased, or to call for a coroner's inquest. The discretion given by clause 20 to the registrar in respect of medically uncertified causes of death is objectionable. Clause 18 of the Bill of 1872, though defective as not requiring medical evidence, was more satisfactory than the present clause, for it at least required the joint statement of two informants where no medical evidence was forthcoming.

"8. The Bill contains provisions for the registration of all births and deaths occurring in British ships *at sea*, but it does not provide for the registration of the deaths in the army and navy *abroad;* this is a defect which should be remedied by a clause requiring the War Office and the Admiralty to supply the Registrar-General periodically with an authentic list of all the deaths in the army and navy *abroad*, comprising the several particulars required in the case of Englishmen dying at home.

"9. In the Registration Bills of 1872 and 1873 the omission of informants to give notice of births or deaths to the registrars was specifically made punishable by a fine, and this is essential to the efficient working of a compulsory Registration Law. In the present Bill no penalty is prescribed for the omission of the notice on the part of the informant. Furthermore, the maximum penalty of 40s. for refusing to give information when applied for by the registrar is too small."

THE WEEK.

TOPICS OF THE DAY.

ARRANGEMENTS for a public meeting in London are being made to raise subscriptions for the extension of the practical schools at the University of Edinburgh. The sum of £60,000 has been subscribed in Edinburgh; £40,000 more is required. A committee has been appointed in London. Dr. Dyce Duckworth and Dr. George Birdwood are the honorary secretaries.

Little surprise has been felt at the insanitary condition of the dwellings in the poorer districts of the metropolis; but it now seems probable that a not less deplorable condition pervades the houses of the "upper ten thousand" in the western district of London. Dr. Lankester refers in his last report to the Vestry of St. James's, Westminster, to three cases of typhoid fever which had occurred in St. James's-place. He had directed inquiry to be made into the outbreak. The house belonged to a nobleman. After describing the defective state of the closets, the connexion of the cisterns with the drains, and the impurity of the water, the Doctor adds—"The whole condition of these things was one of entire neglect, and the only wonder is that dangerous disease had not broken out long since." This house is a specimen of the condition which he believes exists in a large number of the houses of the wealthier inhabitants of the parish. In these cases he had no power to enter

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till disease had broken out and sanitary aid was demanded; but it ought to be a warning to the wealthier inhabitants of this and other parishes of London, not to neglect the sanitary condition of their houses.

Dr. Freeman charged Mr. William Follows, a chemist and druggist, of North-street, Wolverhampton, at the police-court of that town, last week, with using the title of "Doctor," his name not being upon the British "Medical Register." The defendant had an American diploma, and he had a brass plate on his shop-door bearing the inscription—"Dr. W. Follows, Member of the Medical College of Philadelphia." In defence, it was urged that he had never claimed to possess an English degree. The magistrate decided that the defendant had falsely and wilfully attempted to obtain credit from the public by his American diploma, and pronounced the fraud to be a gross one, but did not see why the case should not be dismissed on the defendant's undertaking not to practise as a physician and paying the costs. The case was adjourned for this to be done. If the magistrate's decision is correctly reported, the mere imposition of the payment of the costs of the case by the defendant is a very inadequate penalty for the infringement of the law. The defendant had, according to this decision, "falsely and wilfully attempted to obtain credit from the public by his American diploma," and the fraud the magistrate pronounced "was a gross one." The question may arise whether the defendant had infringed the clauses of the Medical Act which refer to registration. If the case were taken to one of the superior courts, it is doubtful, we think, whether the conviction would be upheld. As the clauses referred to are penal ones, they would be construed literally, and the defendant might escape.

The Registrar-General for Scotland, in his last annual report, makes some observations on vaccination which are important. The beneficial efficacy of vaccination he attests by some striking statistics. He says:—

"Before the introduction of vaccination into Scotland, from 12 to 14 per cent. of the total deaths were annually caused by small-pox, while nearly 2 per cent. of those who survived its ravages lost their eyesight, and a very large proportion had their countenances disfigured for life. Since vaccination was introduced into Scotland in 1799, the average annual death-rate from small-pox up to the present day has been only 1½ per cent. of the total deaths, and even that number has chiefly been caused by the deaths of persons who never had been vaccinated. This single fact proves of itself, more convincingly than any arguments, the saving of human life which the general adoption of vaccination has effected. The question, however, still remains to be answered, whether the Vaccination Act has tended to diminish the mortality from small-pox. It refers entirely to the case of infants, and has no reference to those who were born before its enactments came in force. It has to be borne in remembrance that in all epidemics of small-pox it is the infants, and, indeed, all under five years of age, who are especially liable to its ravages; and when small-pox broke out naturally among the people, when they were unprotected by vaccination, from 60 to 70 per cent. of all who fell victims to it were under five years of age—just as happens nowadays with measles, diarrhœa, scarlatina, diphtheria, and many other diseases. If, then, the Vaccination Act were producing satisfactory results, it ought to show that, as it applies solely to infants, the relative mortality from small-pox of children under five years of age has diminished under its operation."

At the *levée* held at St. James's Palace, on Monday, by the Prince of Wales on behalf the Queen, the following members of the medical profession connected with the army and navy were presented, viz.:—Sir W. M. Muir, K.C.B., M.D., Director-General of the Army Medical Department; Surgeon-General C. A. Gordon, M.D., C.B.; Surgeon-General Thomas [illegible]stings; Surgeon-General W. A. Rutherford, M.D., C.B.; [illegible]y Inspector-General John Watt Reid, M.D., of the [illegible] Department of the Royal Navy; Deputy Surgeon-General Sir A. D. Home, V.C.; Deputy Surgeon-General W. A. Mackinnon, C.B.; Surgeon-Major R. C. Chandra (Bengal Army); Surgeon-Major Max Grant, M.D.; Surgeon-Major R. W. Jackson, C.B.; Surgeon-Major W. R. Kearns; Surgeon-Major G. McNalty; Surgeon-Major J. O'Nial; Surgeon A. Turner, Army Medical Department; Surgeon A. R. Hall, Army Medical Department; Staff Surgeon R. Eustace, R.N.; Staff Surgeon F. H. Moore, R.N.; Staff Surgeon Walker Reid, M.D., R.N.; and Dr. P. Kavanagh, Assistant-Surgeon Oxfordshire Militia. The following gentlemen attended the *levée*, viz.:—Drs. Cape, R. Crothers, J. Langdon Down, Frank, Francis Hawkins, Lilburne, Morell-Mackenzie, Phillips, L. Robertson, and Wood.

Mr. W. C. Grigg, M.D., M.R.C.P. Lond., Physician to the In-patients of Queen Charlotte's Lying-in Hospital, and Assistant-Physician to the Victoria Hospital for Children, has been appointed Assistant Obstetric Physician to the Westminster Hospital.

ADMIRAL RYDER ON H.M.S. "VICTOR EMMANUEL" AS A HOSPITAL-SHIP DURING THE ASHANTEE WAR.

On the 29th of last month a paper was read by Admiral Ryder, at the Royal United Service Institution, on the fittings of her Majesty's ship *Victor Emmanuel* as a hospital-ship during the late Ashantee War. The Admiral prefaced his remarks by stating that the object of the paper about to be read was threefold:—(1) To place on record the successful fittings of the *Victor Emmanuel* for the use of naval officers abroad who might be suddenly called upon to devise and superintend the fittings of a hospital-ship, without time for reference to the Construction Department of the Admiralty. (2) To point out, as far as was ascertainable during a short visit of inspection, what fittings in her were unsuccessful and require alteration. (3) To afford an opportunity for a discussion on Dr. Macdonald's paper, which may assist in pointing out the best system of ventilating all classes of ships, including hospital-ships, etc.

Under the head of section 1 the lecturer described with much minuteness the system of fittings adopted on board, taking deck by deck, down to the starboard shell-room, far below the water-line, which had been converted into an ice-store, the after magazine doing duty as an extra wine store, and the "handing room" of the magazine as a linen store, finishing at what the Admiral described as the "end of all things"—the keelson,—along and at the side of which Portland cement had been applied, the whole limewashed, and afterwards washed with a solution of carbolic acid. At the time of the visit thus recorded, a sponge might have been drawn along the keelson without taking up an appreciable amount of water.

For the great bulk of the arrangements on board, Admiral Ryder had nothing but the most unqualified praise to bestow. He allowed that she had been a costly, but at the same time a most invaluable and successful experimental hospital-ship, and (as affecting section 2) he thought the main points requiring attention would be—1. Vitiated bilge-air to be prevented from having access through the skin to the officers' cabins, the orlop, lower, and main deck. This alteration was considered important, as the system of ventilation adopted through the hollow iron masts and the funnel casing was found to be so effective as to draw up the air from the holds charged with gas from the bilge-water, which, forcing its way into the officers' cabins through the holes over the shelf-piece, diffused a most disagreeable and unwholesome odour around. 2. The orlop deck and holds to be supplied with fresh air by cowled tubes from the upper deck, in addition to the supply already given to the main and lower decks. 3. Holds to be fitted with stanchions and battens for establishing a clear passage to the keelson throughout the ship when possible. 4. The upper

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part of the holds to be ventilated, as the lower and orlop deck are ventilated, by horizontal tubes leading into the masts. 5. Arrangements to be made for supplementing the "natural" system of ventilation by "artificial" means. 6. Arrangements to be provided for preventing a down-draught through the masts when sail is set. 7. The arrangements made by means of dampers in the masts for stopping the ventilation instantly, in case of fire, to be under command from the upper deck, as also the supply of water to the pumps. At present the ventilation could only be stopped by sending a man to the lower masthead to stuff a hammock, or something equally suitable, into the masts. 8. The space in the masts to be subdivided into three or four; thus each deck and hold would have its separate vertical chimney. 9. That as it is the tendency of most screw vessels to settle down by the stern as coal and provisions are consumed, and all water in the ship therefore finds its way aft, the suction of the bilge-pump should be lengthened in anticipation of this tendency. 10. The ventilation of the screw-alley should be improved by providing an escape into the mizenmast; also by having two air-tubes (with cowls) carried from its after end to the upper-deck, one for down-, the other for up-draught; the holes open in the screw aperture, which now distribute the foul air on the main deck and in the poop cabins, might then be closed. 11. All bulkheads of cabins and store-rooms fore and aft should have ventilating openings at top and bottom. 12. The condensing rooms require additional ventilation; this will be best obtained by direct tube connexion with upper decks.

These practical suggestions by an officer of Admiral Ryder's experience are worthy the attention of the Admiralty and the Medical Department, whenever it is our misfortune to have the fitment of another war hospital-ship on our hands.

Section 3, which closed the Admiral's paper, was only indirectly applicable to the *Victor Emmanuel;* treating as it did of the best means available for the ventilation of low-freeboard iron-clads, hospital-ships, etc., it contained many valuable hints for insuring a continuous supply of pure air on board ship, both by natural and artificial methods of ventilation.

PROPOSED BRITISH HOSPITAL AT NAPLES.

THE *Times* correspondent at Naples reports that a meeting has been held by the British residents there for the purpose of drawing up a memorial for presentation to the Secretary of State for Foreign Affairs, embodying the following prayer:—

"That her Majesty will be graciously pleased to grant a sum of £1000 towards the building of a British hospital at Naples, and also £2000 from the Naples British Burial-ground Fund, now invested in England, contingently on the collection by the memorialists of £1000. This collection has already reached the sum of £500, of which £300 has been contributed by British residents; and it cannot for a moment be supposed that an institution, not merely of local, but of national importance, involving the comfort and lives of many of our fellow-subjects, will be suffered to fall through. The scope of the projected institution is thus briefly stated:—It shall be open to all British subjects (especially seamen), and to Protestants of all nationalities. Private rooms, comfortably furnished, shall be provided for patients of superior station and pecuniary resources who may be overtaken by sickness whilst travelling, etc."

The last regulation is stated to be one of vast importance, since it establishes the fact that this projected hospital is not intended to be merely a seamen's infirmary, but also a refuge in sickness and disease for those of our countrymen there, who would otherwise have to be sent to Italian hospitals, or be compelled to pay the enormous prices demanded at the hotels under such circumstances. In a long experience the gentleman who communicates these facts states that he has frequently visited friends fallen sick in hotels or private lodgings, where they have lingered long in suffering, or have died from the want of the comforts and constant careful attention which might have been supplied to them in an institution such as it is now proposed to open.

There should be little difficulty in raising the whole of the sum required for the erection of this hospital amongst the numerous and influential body of our countrymen who so frequently visit Naples.

THE "VENUS" EXPEDITION.

IT is now well known that the Government has decided to send out expeditions to various points in the Indian Ocean for the purpose of observing the transit of Venus, which will be visible early in December in those parts. But it does not seem to be so generally known that accomplished scientific men are to be added to these expeditions to investigate the natural history of some places where it is at present obscure. It is to be regretted that the proper authorities have not published sufficient notice of the subject. But we learn from a private source that three naturalists, to represent geology, botany, and zoology, have already been appointed through the Royal Society, to join the astronomical party at Roderiguez, a little island about three or four degrees from the Mauritius. This natural science staff is to consist of a geologist, Mr. Henry Sclater, B.A., nominated by the University of Cambridge; a botanist, Mr. Balfour, a son of the eminent Professor of Botany in the University of Edinburgh; and Mr. George Gulliver, B.A., son of the distinguished Professor Gulliver, F.R.S., and nominated in the interests of zoology and zootomy by the University of Oxford. It is to be hoped that no stingy economy on the part of Government will be exhibited towards these several gentlemen, whereby the important interests confided to them may be jeopardised, but that liberal grants may be accorded to each for their expensive instruments and outfit generally.

HOSPITAL SUNDAY FUND.

THE near approach of Hospital Sunday has been duly notified to the public of London by the appearance of large placards on the walls of the different hospitals and dispensaries in the metropolis, inviting co-operation upon the forthcoming occasion. The Bishop of London is announced to preach in aid of the fund at Fulham parish church; the Bishop of Winchester at St. Mark's, Kennington; and the Bishop of Rochester at St. Paul's Cathedral. Bishop Claughton, Bishop Beckles, and the Bishop of the Falkland Islands have also promised to preach upon the occasion. Some surprise was expressed last year that the amount collected was so small—under £30,000,—but this was explained by the fact of the movement not having been sufficiently ventilated. Upon the present anniversary it is confidently anticipated that the sum realised will be much greater, from the circumstance of so many ministers of different professions having undertaken to organise collections for the fund. The Committee of Distribution has been formed as follows:—Sir Sydney Waterlow, M.P.; Lord Mahon, M.P.; Sir Anthony de Rothschild; Mr. T. Hankey, M.P.; Alderman McArthur, M.P.; Mr. Samuel Morley, M.P.; Mr. Jervoise Smith; Dr. J. Risdon Bennett; and Mr. Arthur Durham.

THE SECRETION OF GASTRIC JUICE.

THERE is something unpleasant in having one's old views and theories exposed as false. We have all been accustomed to believe that the secretion of gastric juice was an intermittent phenomenon, and that it only occurred when the stomach was irritated by some stimulus of a mechanical or chemical nature. Dr. Braun gives an account (in Eckhard's *Beiträge für Anatomie und Physiologie*, Bd. vii.) of some experiments which make it probable that the gastric juice is secreted just like the urine, continuously. He produced gastric fistulæ in dogs, and irritated

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the mucous membrane of the stomach with sponges, gravel, alkalies, and bits of meat, and he found that the amount of secretion, estimated by removing it with a sponge, was unaltered in each instance, nor was it increased by the presence of the saliva either of dogs or of man. Moreover, no relation was found between the secretion of saliva and of the gastric juice; for a stimulus which increased the amount of saliva did not increase that of the gastric juice, and *vice versâ*. According to Braun, the mucous membrane of the stomach is but rarely covered with mucus; usually it secretes a fluid which has an acid reaction. If fluid—for example, a 1 to 2 per cent. solution of urea, or a 1 per cent. solution of common salt—be injected into the femoral vein in large quantities, the gastric juice becomes more abundantly secreted; and that the increased secretion is really gastric juice is shown by its acid reaction and by its digesting albumen. It sometimes, however, requires the addition of a little hydrochloric acid to give it digestive power, and this fact Dr. Braun compares with that observed by Manassein—namely, that the acid is deficient in the gastric juice of animals which are rendered acutely anæmic. Dr. Braun's experiments are interesting and extremely important if confirmed by other observers, but there is the positive evidence of such men as Beaumont and Claude Bernard on the other side, which should make us hesitate in accepting them too eagerly.

QUALITIES OF A LECTURER.

THE following extract is from the "Journal of Henry Cockburn; being a Continuation of the Memorials of his time, 1831-1854" (vol. ii., p. 81). Cockburn was an advocate on a par with Jeffery, and afterwards a judge; altogether, a very distinguished individual. Although his name is best known in Scotland, the opinion entertained by an eminent man as to the qualities requisite for a good lecturer will no doubt interest many of our readers who are engaged in giving oral instruction to medical students:—

"27th July, 1844.

"A few days ago Sir William Hamilton was struck with palsy, and, though he should survive, is practically gone. . . . . He is an excellent, laborious, and learned man; a great sounder of intellectual depths. His learning, indeed, is vast, and was hourly amassing. An indistinct utterance, an awkward bashful manner, though with a look of apparent sullenness, and a taste for abstruse profundity, prevented his being practically a first-rate teacher or lecturer. The art of oral instruction seems singularly difficult. It is by no means implied in a complete command of the subject, even when this is joined to considerable power of speaking or of writing. A great lecturer, besides these, must be precise, yet not dry; lucid, but not superficial; animated, but not declamatory; and, above all other qualifications, he must be familiar with all the depths and shallows of his hearers' minds in reference to his language, and to the matter to be taught; so as to avoid the common and fatal error of pursuing his own thoughts, while they have no thoughts to pursue, and of diving or soaring while they, if awake, are staring at him from the flat earth. No mistake is more usual than that of supposing that the power of acquiring, and that of communicating, knowledge is the same, and that the lecturer evincing the one must evince the other. And even knowledge is not all that a truly good lecturer has to teach. He has to teach the art of acquiring knowledge, the art of acquiring the habits and the powers of acquisition."

ROYAL COLLEGE OF SURGEONS.

THE following is the programme of the course of three lectures by Mr. Callender "On the Formation and Early Growth of the Brain in Man," the last of which will be delivered this day (Friday):—

"*Lecture* 1: Introduction. The axial arches. The notochord. The cranial constrictions. The proto-vertebral demarcation. The closure of the primitive groove. The subaxial [illegible]. The cartilage of the cranium; its relations to the [illegible] nerves and to their branches. *Lecture* 2: The cerebral constrictions. The pituitary centre. The pineal centre. Its peduncles. Development of the membranes. The endocranial membrane (dura mater). The perineural membrane (visceral arachnoid and pia mater). The formation of the velum and of the choroid plexuses. The cerebral flexures; their fixed points. Parts of the brain of the fœtus from the eighth to the ninth week. Origin of the cerebral nerves. Parts of the brain of the fœtus from the tenth to the twelfth week. *Lecture* 3: Parts of the brain of the fœtus from the sixteenth to the seventeenth week. The formation of the mantles. The formation of the fornix. The formation of the corpus callosum, and the consolidation of the hemispheres. The relations of the third ventricle; its cornua. The convolutions. The medulla oblongata and the cerebellum."

On Monday, Professor Timothy Holmes will commence his course of lectures "On the Surgical Treatment of Aneurism in its various forms."

TEST EXAMINATIONS.

SINCE the publication of the percentage list of "passed" and "plucked" at the Royal College of Surgeons, test examinations have been instituted at most of the London and provincial medical schools. If a student fails to past the "test," he is "recommended" not to present himself at the College until he is better prepared. In some schools great dissatisfaction exists on account of the enforcement of the test, whilst at others the feeling among the students is almost unanimous in its favour. At one provincial school, out of nearly thirty students, only five succeeded in passing the "test," and were allowed to present themselves at the College of Surgeons examination.

ROYAL COLLEGE OF SURGEONS IN IRELAND.

AT the annual meeting, held pursuant to charter, on Monday, June 1, 1874, the following officers were elected for the ensuing year:—*President:* Joliffe Tufnell. *Vice-President:* Edward Hamilton. *Council:* Robert Adams, John Hamilton, Benjamin George MacDowel, William Colles, Alfred H. McClintock, John Denham, George Hornidge Porter, George H. Kidd, Rawdon Macnamara, Philip Crampton Smyly, John Morgan, M. Harry Stapleton, Albert H. Walsh, Edward Ledwich, John K. Barton, Frederick Kirkpatrick, Richard G. Butcher William Stokes, Samuel Chaplin. *Secretary:* William Collis. The contest for the vice-presidency caused much excitement, but Mr. Hamilton was elected by a very substantial majority. The voting was—Edward Hamilton, 123; Edward D. Mapother, 72 votes. This result is so far favourable to the conjoint examination scheme for Ireland, as Dr. Mapother is a determined opponent of the measure. As was anticipated, several changes have taken place in the constitution of the Council, but on it, too, we believe the supporters of the conjoint examination scheme are in a decided majority. The most notable change is the election of a provincial Fellow, Dr. Samuel Chaplin, of Kildare, to a seat on the Council. This testifies equally to that gentleman's popularity and to the liberality of the College.

ST. LUKE'S HOSPITAL, OLD-STREET.

WE are glad to notice that the Committee of this Hospital have lately thrown open two clinical assistantships to the students of the London schools who have recently become qualified to practise, thus affording another opportunity to the profession for the acquisition of a knowledge of mental diseases, which is so difficult to obtain excepting by means of an appointment such as this. The post is tenable for six months, rations and rooms in the Hospital being provided. One assistant has been in residence for nearly three months, and another will be appointed, in addition, on July 1, for which applications must be at once sent in. Students, also, are permitted to visit the wards of the Hospital on application to Dr. Eager, the Superintendent. We most cordially commend

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this to the notice of our junior brethren who have little chance of becoming acquainted with such diseases, and who nevertheless are called upon to sign lunacy certificates—which they do, as experience has shown, at their peril.

THE HEREDITARY TRANSMISSION OF PROGRESSIVE MUSCULAR ATROPHY.

Dr. H. Eichorst has reported in the *Berliner Klin. Wochenschrift*, Nos. 46 to 48, 1873, the history of a woman, seventy years of age, suffering from progressive muscular atrophy, whose great-grandfather, grandfather, and father all had it. She has had ten brothers and sisters, of whom only one sister has been attacked, but the brothers all died at a comparatively early age, which may explain this apparent exception to the rule that hereditary progressive muscular atrophy generally attacks the male sex. Of the woman's seven children, three out of four sons, and one out of three daughters, have inherited the disease. Two of her grandchildren—a son's son and a daughter's son—have been attacked, their parents remaining healthy; and out of three nieces (daughters of her sisters) two have died from it. Nearly all who have suffered have been first affected in the prime of life, and the earliest symptoms have invariably been weakness and wasting of the muscles of the calf, followed in the majority of the cases by atrophy of those of the hands. The development of the disease in the muscles of the leg does not appear to have been due to their over-use.

THE WATER-SUPPLY OF ANCIENT ROME.

The German *Arbeitgazette* furnishes some interesting facts with regard to the above subject, which show how admirably the old Romans knew how to apply their engineering skill to the solution of a difficult problem. Nineteen aqueducts traversed the city, the largest of which brought water from a distance of forty miles. To break the force of the water, these aqueducts (some of which are still in use) bend at an angle at distances half a mile apart, and at each angle there is a large reservoir with a filtering apparatus at its outlet. The latter consists of two upper and two lower arched chambers, and the water enters the first upper chamber through the roof, then passes through an opening in the arch of the first lower chamber into it; it then enters the second lower chamber through openings in the partition between it and the first, and finally ascends, by the law of communicating tubes, into the second upper chamber, and into the aqueduct again. The Romans made their pipes of stone, because neither leaden nor earthen pipes could permanently resist the pressure of the water. These pipes are six feet high and two feet wide. The new water company at Rome has tried *iron* pipes, but they burst so frequently that it is feared the whole system will have to be reconstructed.

SEIZURE OF AN ANATOMICAL MUSEUM.

Last week the Manchester police seized the models and other contents of a so-called anatomical museum at 27, Oxford-street, Manchester, the property of a "Dr." Woodhead. The attention of the police was directed to the exhibition in consequence of a handbill coming under their notice in which ladies were invited to visit "the wonderful and scientific collection of anatomical specimens, which lays bare every organ of the human frame," etc., at a time specially set apart for them.

FEVER IN LIVERPOOL.

In consequence of an epidemic of scarlet fever in Liverpool, there has been a remarkable falling off in the attendance at the elementary schools in that town. Dr. Trench, the Medical Officer of Health, recommends that people living in houses where there are cases of scarlet fever should be cautioned not to let their children go to school.

ROYAL INSTITUTION OF GREAT BRITAIN.

At the general monthly meeting of this institution, held on Monday, June 1, George Busk, Esq., F.R.S., Treasurer and Vice-President, in the chair, the special thanks of the members were given to Lord Clermont for his valuable present of "The Life, Works, and family history of Sir John Fortescue, Knt. Chief Justice, and Lord Chancellor to King Henry the Sixth."

SMALL-POX IN PRESTON.

It is said that small-pox has been gradually spreading in Preston during the last twelve months, and that double the number of cases were reported during last month compared with the corresponding month of 1873. That the disease increases in Preston is not a matter for surprise, when the medical officers can report that a wedding breakfast was recently given in a room where a young woman lay suffering from a severe attack of confluent small-pox; and that a woman continued her work at a mill during the whole period of an attack of the same disease.

PARLIAMENTARY.—FOOT AND MOUTH DISEASE.

In the House of Commons, on Tuesday, June 2,

Lord Sandon, replying to Lord Henry Thynne, said that owing to the prompt action of the member for South Wiltshire, the Lord President was informed immediately of the outbreak of some serious form of disease among the cattle in Wilts and Dorset. An inspector was entrusted to visit the locality and to report as soon as possible the result of his inquiry. No report had been received from him up to the present time, but he had been instructed to telegraph as soon as he ascertained the real character of the disease.

THE INTERNATIONAL EXHIBITION, 1874.

Exhibition of Hungarian and Transylvanian Wines.

There are few departments in the present International Exhibition of more interest than that devoted to wines. We do not, of course, mean mere collections of common ports and sherries, but rather of those where the wines of any particular country or district have been carefully selected and sent to us for critical examination, trusting only to their own intrinsic merits for the command of English patronage. We could wish that there were more of these special collections, but even as matters now stand there is abundance of material for a careful and discriminating reporter.

One of the most perfect, and certainly one of the most interesting collections are the wines sent by the Agricultural Society of Hungary, and the Agricultural and Wine Cellar Societies of Transylvania. In those collections all the best growths are represented; the wines have been carefully selected, and as a consequence we have such a variety of Hungarian and Transylvanian wines as has never before been seen in this country; indeed, the wines of Transylvania were hardly known in this country previous to this Exhibition. This collection is no private speculation, but is under Government authority, and the expenses are, we understand, defrayed by the country.

It was our good fortune to publish the now classical papers from the pen of Dr. Druitt on the subject of new and cheap wines, whilst such wines were new and hardly known in this country. The value of these papers has been immense, not only by their direct, but also by their indirect influence; to our thinking they placed the study of wines on a true foundation. Wines in the true sense, not flavoured decoctions of bad spirit, were alone dealt with, and their qualities referred to such standards as are at the service of all men's taste—flavour, bouquet, and their satisfying and comfort-giving powers. These tests are purely empirical—they have no immediate connexion with the purely chemical tests which a

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certain school of would-be reformers would substitute for all others, but which are in reality a delusion and a snare. Moreover, these papers by Dr. Druitt, having as their sole object the enlightenment of the public, were written with this view, and not with that of advancing the interests of any particular wine merchant or group of wine merchants—an example which we are fain to follow.

The wines of Hungary and Transylvania may be grouped in two ways—the white and the red; the dry and the sweet. Of the white the name is legion; of the red there are, comparatively speaking, few, but these are of unusual excellence.

In the Exhibition are some hundreds of specimens of all kinds and from all growers; we must, therefore, be content with a fair selection from these. To begin with the wines of Transylvania, as the greatest strangers. Here we find only one red wine, which is sent by Mr. John Paget, Vice-President of the Transylvanian Agricultural Society, and a great wine-grower. This wine has the flavour peculiar to most of the wines of the country, is rich and full-bodied, and would probably develope by keeping.

Of the various grapes grown in Hungary, the most characteristic is probably the Bakator. Some of the most characteristic wines produced from it are those grown by Count Josef Stubenberg, at Szekelyhid, which are exhibited and sold as *Ermellék Bakator*. This is a highly commendable wine, and one well deserving public attention; it costs about 3s. a bottle, and will keep almost any length of time. Some is now on show of vintage 1834, which has the peculiar flavour highly developed, but seems somewhat thin compared with its more robust and younger brethren. This same grape is grown in Transylvania; but the Transylvanian wine, though rich in the peculiar bouquet, is thinner than the Hungarian samples. This Transylvanian wine would cost about 2s. a bottle. About the same price are two other wines sent by the *Wein Keller Co.*—viz., the *Mézoség*, an excellent table wine; and another rather fuller, going by the euphonious name of *Küküllomenti*, from the Seibenberg district, which is an excellent wine, at 32s. per dozen. Another Küküllomenti, older and more carefully selected, having rather more body and somewhat sweeter, is 36s.

The Traminar and Riesling grapes are both grown in Transylvania, and both produce very fine wines of fine bouquet and strength. One of the best wines produced by the Riesling is sent by the Englishman already mentioned—Mr. John Paget, or Paget Janos, as he is called in the country.

Two peculiar wines produced by grapes really grown in Transylvania are exhibited. These are, first *Leanyka* (literally a young girl), a wine possessed of very fine flavour, sweeter and stronger than most; and another from the Croquant Muscat grapes, rich and full of the true muscat flavour. These are both very fine wines, costing about 46s. per dozen. There is also a sweet wine, technically *Aszu*, with something of a Tokay flavour, but sold in large bottles, not the small Tokay flasks. This, which is very good, sells at about 40s. the dozen. Such are the most important novelties from Transylvania.

Hungarian wines can hardly at the present day be considered either novel or in want of praise. They have steadily made their way in this country since first introduced, and no small thanks for this are due to Mr. Max Greger, in whose cellars many fine specimens of the products of Hungary may be seen. But, apparently stimulated by his success, other merchants have entered the field, and we are not prepared to deny that their wares are of the highest merit. One of these gentlemen—M. Flandorffer, of Oldenburg—has a collection which, if those we have seen are good and fair samples, well merits attention. Of cheaper wines sold by this gentleman, an *Erlauer* at about 22s. per dozen, and thus within the reach of all, well merits attention as a dinner wine. *Erlauers* vary greatly in character; this is very good.

Still better are the samples of *Carlowitz* sent by the same gentleman. Carlowitz is, of all Hungarian wines, that which has taken most hold on the people of this country, and we should not be doing our duty by them if we did not direct attention to the finer varieties of this wine exhibited by Mr. Flandorffer. The wholesale depôt for these wines is at 31, Crutched-friars, E.C. The agent for Ireland is Mr. Francis Falkner, Dublin. The price of the finer specimens is about 29s. per dozen.

A very nice red wine of this sort is the *Château Palugyay*, sold at about 24s. per dozen; this is sent by Palugyay and Sons, wine merchants, at Pressburg. Another admirable wine is the select *Szegzarder*, sent by the same merchants, also about the same price.

In some respects coming close to these are two wines, the growth of the vineyards of the Archduke Albrecht at Belye. There are wines going by the generic name of *Villányi*, which are of two kinds, the one the product of the ordinary grape, the other of grapes from vines natives of Portugal. These are dryer than the Szegzarder, and the selected is rather dearer. Another *Villány*, selected and sent by Szeifricz, of Pecs, is also well worth looking at.

Of other red wines—*Ofner* of various kinds; Ménes and Visonta, both full-bodied, samples of all which in excellent condition are sent by Abeles, of Pesth—we have hardly time or room to speak, but must pass on to say a word with regard to the white wines of Hungary, giving only their meed of praise to the red wines sent by Ladislaus Korizmics. This gentleman sends some specimens of what he calls Hungarian claret and Hungarian Burgundy. The finer specimens of these, especially the *Kistétény Burgundy*, are magnificent wines, and may well compare with the finer productions of the French vineyards.

The same gentleman sends a white wine, which he calls *Kistétény Hock*. This is a cheap, appetising wine, very pleasant and agreeable. To this same class belongs a white wine imported by Max Greger—*Neszmély*—which sells at 18s. per dozen, and far exceeds in quality many wines sold at twice the money.

Among the finer white wines are the *Badacsony* wines grown by Ramasetta at Sumegh, and by Bishop Ranolder of Veszprim. These are really delightful wines, and well deserve public attention; whilst another wine also grown by Bishop Ranolder is among the best of Hungarian wines. It is named *Piccolit*, and has carried off medals innumerable. The wine is sweet, but not nearly so sweet as are those of the Tokay class. Another wine sent by the same Bishop, with a muscat flavour, is very fine also.

Most of the Badacsony wines are produced from the same grapes as is the famous Château d'Yquem of Bordeaux.

Of the host of Tokays of all classes here exhibited we can say little or nothing, nor of their congeners, Szamarodny or dry Tokay; but there is a comparatively cheap wine of the class sold as Hungarian sherry which is well worthy the attention of visitors to the Exhibition.

In such a notice as this it is hardly possible, however hard we try, to do justice to all the wines, wine-growers, and wine merchants of Hungary. What we recommend the public to do is to go, and form their own conclusions; but we strenuously advise them to seize an opportunity which in all probability will never again recur.

MORTALITY OF LONDON.—The total number of deaths registered in London last week was 1385, which was only 14 below the average. The annual death-rate, which in the two previous weeks had been equal to 20 per 1000 per week, rose last week to 21. There were 37 deaths from measles. To the seven principal diseases of the zymotic class 168 deaths were attributed, against 153 and 138 in the two previous weeks.

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AN INTRODUCTORY LECTURE
TO A
COURSE OF LECTURES ON PUBLIC HEALTH.

DELIVERED AT CHARING-CROSS HOSPITAL, ON TUESDAY, MAY 19, 1874.

By G. V. POORE, M.D.,
Assistant-Physician to the Hospital, etc.; Lecturer on Forensic Medicine and Joint Lecturer on Public Health in the Medical School.

(*Continued from page 596.*)

ANOTHER cause of the improved health of the metropolis was the Great Fire of 1666, which destroyed upwards of 13,000 houses, many of them of the class which Erasmus had condemned and which there can be little doubt were fever-dens of the worst description.

The only writer who has had the hardihood to advocate the systematic use of fire as a purifier is an American. Nathaniel Hawthorne, in his well-known novel "Transformation," says, speaking of the old buildings so common in Italy:—

"Gazing at them we recognise how undesirable it is to build the tabernacle of our brief lifetime out of permanent materials, and with a view to their being occupied by future generations. All towns should be made capable of purification by fire, or by decay, within each half-century. Otherwise they become the hereditary haunts of vermin and noisomeness, besides standing apart from the possibility of such improvements as are constantly introduced into the rest of man's contrivances and accommodations. It is beautiful, no doubt, and exceedingly satisfactory to some of our natural instincts, to imagine our far posterity dwelling under the same rooftree as ourselves. Still, when people insist on building indestructible houses, they incur, or their children do, a misfortune analogous to that of the Sibyl when she obtained the grievous boon of immortality. So, we may build almost immortal habitations, it is true; but we cannot keep them from growing old, musty, unwholesome, dreary, full of death-scents, ghosts, and murder-stains; in short, habitations such as one sees everywhere in Italy, be they hovels or palaces."

A third cause, and a cause which has not, I think, been sufficiently recognised, was the construction of waterworks for bringing wholesome water to London.

It is stated that, as early as the reign of Queen Elizabeth, leave was granted to the citizens to convey a stream to London from any part of Middlesex or Hertfordshire. It was not, however, till 1609 that Mr. Hugh Myddleton, a Welsh goldsmith, who had enriched himself by mines in Cardiganshire, persuaded the Common Council to transfer their powers to him, and he undertook in four years, at his own risk and charge, to bring the Chadwell and Amwell Springs from Hertfordshire to London by a route more than thirty-eight miles long. The scheme met with much opposition from the landholders of Middlesex and Hertfordshire, and before the work was completed the projector's resources were exhausted, and he was obliged to petition the King to assist him.

The date of the opening of the New River Head at Clerkenwell was September 29, 1613. "It was a considerable time, however," says Thornbury, "before the New River water came into full use, and for the first nineteen years the annual profit scarcely amounted to twelve shillings a share."

Smiles computes the cost of the New River at £18,000. The pipes at first used were wooden; the leakage was so great through these wooden pipes that it is computed that about a quarter of the whole water was wasted. When these wooden pipes were in vogue—which we may be sure quickly rotted—it is no wonder that a prejudice existed against them. Water-carriers therefore long continued to drive a trade in water carried directly from the New River Head or the River itself, their cry being "Fresh and Fair New River Water! None of your Pipe Sludge!" At the source of the New River at Chadwell, near Ware, a memorial stone has been erected bearing the following inscription. "Sacred to the memory of Sir Hugh Myddleton, Baronet, whose successful care, assisted by the patronage of his King, conveyed this stream to London: an immortal work, since no man cannot more nearly imitate the Deity than in bestowing Health."

Besides the prevention of disease, one of the great aims of the science of public health is, or most undoubtedly ought to be, the improvement of the race. We have only to look at the children—pale, wretched, pinched, crooked-limbed, and fighting with disease—who swarm in the London streets, and compare them with the sturdy, rosy-cheeked boys and girls that one encounters in well-cared-for country districts, to be sure that the town-bred children of the poor, whose resources are not sufficient to counteract the adverse surroundings which encompass them, must be vastly inferior as citizens—physically as well as morally—to the children who enjoy from their birth all the advantages of fresh air, free exercise, and healthy parentage.

The theory of "natural selection," broached a few years since, ought certainly to have a great influence upon the science of public health and upon the enactments which may be necessary for the forwarding of that science. According to the theories of natural selection, the weak members of a family are sure to be worsted in the battle of life, and the strong will alone survive the struggle and bear off the rewards of victory. In this way the gradual improvement of the race is insured by the eradication of the weeds and the giving of more room for the healthy plants to flourish in.

Now, the science of public health must have the effect, and doubtless has had the effect, of lessening the enemies with which man has to contend, and thus there can be no doubt that many more sickly weeds survive to manhood than formerly; and therefore against the great good which public health enactments doubtlessly effect for us, must be placed the counterbalancing reflection that excessive protection interferes with that process which bears good fruit in the long run—I mean "natural selection."

"To Plato," says Lord Macaulay, "the science of medicine appeared to be of very disputable advantage. He did not, indeed, object to quick cures for acute disorders, or for injuries produced by accidents; but the art which resists the slow sap of a chronic disease, which repairs frames enervated by lust, swollen by gluttony, or inflamed by wine—which encourages sensuality by mitigating the natural punishment of the sensualist, and prolongs existence when the intellect has ceased to retain its entire energy,—had no share of his esteem." "The exercise of the art of medicine ought, he said, to be tolerated so far as that art may serve to cure the occasional distempers of men whose constitutions are good. As to those who have bad constitutions, let them die; and the sooner the better."

If this Platonian doctrine were acted upon, there can be little doubt that the remnant of the present population which would remain would be a remnant having robust constitutions, and therefore calculated to transmit strength and stamina to the generations which should succeed them.

In centuries gone by the elimination of the physically, mentally, or morally weak was more abundantly effected than at present. All the diseases bred of ignorance and overcrowding assailed the population in the most virulent manner; and perhaps I shall not be thought wanting in respect to the mighty dead if I put forward a doubt as to whether the treatment of the physicians of that time, with their antiphlogistics, bleedings, purgings, hot regimens, and barbarous nostrums, had even the merit of doing no harm. It must have been very seldom that the prescriptions and remedies ran counter to the ideas of Plato by repairing the enervated frame or resisting the slow sap of a chronic disease.

The mentally weak were eliminated in the same way. In those dark ages a man who became mentally deranged was regarded from different points of view, according to the form which his derangement took.

"If," says Dr. Maudsley, "the ravings of the person took a religious turn, and his life was a fanatical practice of some extraordinary penance, . . . he was thought to have reached the ideal of human excellence, and was canonised as a saint; more often his state was deemed to be a possession by the devil or other evil spirit, or the degrading effect of a soul enslaved by sin. . . . It was the natural result of such views of madness that men should treat him whom they believed to have a devil in him, as they would have treated the devil could they have had the good fortune to lay hold of him. When he was not put to death as a heretic or a criminal, he was confined in a dungeon, where he lay chained on straw; his food was thrown in, and his straw raked out through the bars; sight-seers went to see him as they went to see the wild beasts—for amusement; he was cowed by the whip or other instrument of punishment, and was more neglected and worse treated than if he had been a wild beast. Many insane persons too were, without doubt, executed as witches or as persons who had, through witchcraft, entered into compact with Satan." In this way, the insane were quickly or slowly, but nevertheless surely, to a great extent eliminated from the ranks of the people.

The elimination of the morally depraved was effected in a no less thorough manner. By an Act of Henry VIII. it was enacted that vagrants, beggars, and such as could give no good account of themselves, should suffer as follows:—

If caught begging once, being neither aged nor infirm, he was whipped at the cart's tail. If caught a second time, his ear was slit or bored through with a hot iron. If caught a third time, being thereby proved to be of no use upon this earth, but to live upon it only to his own hurt and to that of others, he suffered death as a felon.

Thieves, when convicted, were generally sentenced to death, and the sentence was not infrequently carried out; and although Mr. Froude discredits the assertion which has been made that as many as 72,000 criminals were executed in the reign of Henry VIII., there can be no doubt that the number of such executions was enormously great. Thus we see that disease, the State, and the gallows were great eliminators of worthless characters; and although, through these as well as other—and probably more important—causes, the population remained numerically almost at a standstill, there can be no doubt that the race who conquered the Spanish Armada, and which produced a Shakspeare, a Raleigh, a Drake, and a Bacon, was a race which had approached to no mean degree of physical and mental excellence, and that too almost without the aid of sanitary legislation or compulsory education.

The nineteenth century differs from the sixteenth in this—that it is far more benevolent in its treatment of the sick and erring. At the last census in 1871 it was found that of the 3,250,000 persons inhabiting the metropolis, no less than 60,000 were living as the inhabitants of workhouses, hospitals, asylums, and prisons, at the expense of the rest.

We cherish our weeds. The patient with mental disease is allowed to go abroad as soon as the solicitous care of the physician has restored to him his reason; the hardest and most inveterate scoundrels in our prisons are often set at liberty with a ticket of leave; prostitutes are still permitted except in a few favoured localities to ply their calling and disseminate disease without restraint; and it is hardly too much to say that the hangman's office has become a sinecure. We adopt the same tactics with mental and moral diseases as we do with physical maladies, and in our treatment of them we are actuated by the feeling that prevention is better than cure. And so indeed it is; and no one will deny that, for all concerned—the healthy as well as the sick and erring—the less harsh we are in the treatment of our unfortunate brethren, the better. It is certainly more rational, more humane, and more in accordance with Christian doctrine to prevent than to be ready to adopt capital measures for eradication.

The only objection which can be raised against our humane course of action, arises from the knowledge that much disease both of mind and body is hereditary; and when we reflect that the consumptive when he leaves the hospital, the madman when he quits the asylum, the habitual criminal when he gets his discharge or ticket of leave, and the syphilitic prostitute, are all capable of transmitting their several taints to generations yet unborn, we can hardly repress the doubt which arises in our minds as to whether Plato was not in the right after all.

"All persons," says Dr. Maudsley, "who have made criminals their study, recognise a distinct criminal class of beings, who herd together in our large cities in a thieves' quarter, giving themselves up to intemperance, rioting in debauchery, without regard to marriage ties or the bars of consanguinity, and propagating a criminal population of debauched beings. . . . In addition to the perversion or entire absence of moral sense, which experience of habitual criminals brings prominently out, other important facts disclosed by the investigation of their family histories are, that a considerable proportion of them are weak-minded or epileptic, or become insane, or that they spring from families in which insanity, epilepsy, or some other neurosis exists, and that the diseases from which they suffer and of which they die are chiefly tubercular diseases and diseases of the nervous system. Crime is a sort of outlet in which their unsound tendencies are discharged; they would go mad if they were not criminals, and they do not go mad because they are criminals."

The State has so much respect for the liberty of the subject that one can hardly expect that any measures will ever be taken to prevent the marriage of those tainted with hereditary sickness or to stop the propagating power of habitual criminals. But it is harder to understand the unwillingness of English Governments to interfere with the liberty of the prostitute. Dr. Parkes says—"A woman chooses to follow a dangerous trade—as dangerous as if she stood at the corner of the street exploding gunpowder. By practising this trade she ought at once to bring herself under the law, and the State must take what precautions it can to prevent her doing mischief. The State cannot prevent prostitution. We shall see no return to the stern old Scandinavian law, which punished the prostitute with stripes and death; but it is no more interference with the liberty of the subject to prevent a woman from propagating syphilis, than it would be to prevent her propagating small-pox."

Dr. Acland, in a lecture on "National Health," delivered in 1871, mentions the following case:—"A girl, having been seduced, entered a workhouse; a female child was born. She was brought up in the union, and was there at school till nearly of age. She went out, straightway became first a prostitute, and then syphilitic; returned to the workhouse, and brought forth a syphilitic infant, to be reared, like her mother, with difficulty. There she lives in misery, and may perhaps repeat the dismal tragedy of her grandparent and her parent at the cost of the nation."

This is a solitary instance recorded by a physician to whom the facts of the case were accidentally known. Who can say how many such cases go unrecorded both in and out of workhouses, or what is the amount of evil worked in this country by an unchecked system of prostitution, which is capable of undermining not only the health of the present but of succeeding generations?

The only check which we have as yet attempted to place upon certain of the evils last enumerated—the evil of unrestrained marriage between people who are physically or mentally deranged; the evil of allowing habitual criminals to wander among us and perpetuate their degraded class; and the evil of respecting the liberty of the prostitute at the expense of the health of citizens who follow honest callings—is the moral check. We have got a compulsory education Act, and, if evasion of it be prevented, we may hope that within sixty years or so from the present date every British subject will possess the means of educating himself if he choose—*i.e.*, a knowledge of reading, writing, and a little arithmetic.

How many thousands of generations it will take before education stifles the insane germs which lurk in the minds of not a few of us, or at what time, if ever, the world will see the prostitute, by the study of divine philosophy, led to see the errors of her ways, it would be waste of time to speculate.

"An acre in Middlesex," says Macaulay, "is better than a principality in Utopia. The smallest actual good is better than the most magnificent promises of impossibilities. The wise man of the Stoics would no doubt be a grander object than a steam-engine; but there are steam-engines, and the wise man of the Stoics is yet to be born!"

Besides the Education Act, which there can be no doubt will do much to develope the mental and moral excellence of the nation, there are other means of improving the national health which surely ought not to be neglected. Perfect health, we are told, consists of "a sound mind in a sound body"—*Mens sana in corpore sano*. The ideas of the ancients, that body and mind were distinct and separable from each other, have long since exploded, and, according to modern views, a sound mind is merely the outcome of a perfectly sound body. If, therefore, we are to have a national system of mental training, surely we ought to have a national system of physical training as well. For us, whose masses are for the most part centred in densely populated and unhealthy cities, this physical training seems doubly important. In the early days of our history, when the feudal system still existed among us, every able-bodied man in the country was trained to bear arms; and, although there was no standing army, no class who made fighting their sole profession, and physical training their principal aim in life, we were then dreaded by our foes, and rightly regarded as the fiercest nation in the world. In whatever way the physical training is to be effected—whether by a term of compulsory military or naval service or otherwise,—there can be no doubt that it is absolutely necessary; and if it be not carried out, and *with women as well as with men*, we shall undergo a great risk of physical deterioration, because a large proportion of the inhabitants of our cities are wholly unable to receive physical training in any shape except upon compulsion and at the expense of the State.

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HEREDITARY LOCAL HYPERIDROSIS.

M. Ollivier, of Paris, has recently recorded a case of the above affection, which, as far as he knows, has never been described before. Local hyperidroses are, of course, not so very rare, but it is their hereditary transmission which is here remarkable.

The patient is a man, aged twenty-one years, quite healthy, but afflicted since birth with constant sweating of that part of the skin of the face which is innervated by the right superior maxillary branch of the fifth nerve—namely, the lower eyelid, right half of the nose, the cheek and upper lip of the right side. On the bridge of the nose the sweating extends a little beyond the median line towards the left, evidently from the interlacing of the terminal filaments of the contiguous nerves of the two sides. Even in extremely cold weather the affected half of the face is always moist, and this moisture may become intensified into a copious sweat, which runs down the face in streams. Its reaction is acid. Warmth, alcohol, exercise, and mental emotions (especially the last) cause the greatest flow of perspiration. If he takes part in an animated discussion, he is obliged to keep his handkerchief always applied to his cheek. The skin becomes injected when the sweating is most active; but in all other respects there is not the slightest perceptible difference between the right and left cheeks.

The patient's maternal grandfather had an exactly similar affection all his life; he died at the age of eighty-two. His aunt (mother's sister) and her only daughter also suffer, while her two sons are free from it. In all these cases the same nerve-district and the same side of the face are affected, and in none of them can any cause, direct or indirect, be discovered to account for it.

FROM ABROAD.

The Epidemic of Typhoid Fever at Lyons.

According to the account of this given by M. Perroud in the *Lyon Médical*, typhoid fever has prevailed more or less since last autumn, so that it had become established endemically when the recent remarkable atmospheric conditions set in. These consisted in a sudden and very sensible elevation of temperature, an intense degree of dryness, so that the level of all the rivers greatly sank, while the ozone curve attained an unusual elevation. During this condition of the atmosphere, several pupils of the Lycæum were attacked with typhoid, all recovering. Most of them fortunately (it being Easter vacation) were absent, but the Principal received about eighty letters from parents, stating that their children, on reaching home, had become the subjects of typhoid or of mucous fever. About a hundred children altogether were attacked, those who were seized at a distance from Lyons being in general less seriously affected than those in the town itself. The epidemic did not show itself in the town until several days after it had appeared in the Lycæum; but between April 15 and May 3 358 patients had been admitted into the various hospitals; of these, 295 were adults, the males being only 95 to 200 females; but of 63 children admitted 44 were boys and but 19 girls. The comparatively small number of children brought to the hospitals was not borne out by the proportion met with in private practice, in which adults were infinitely fewer than children, and chiefly consisted in nurses and others brought into close contact with children. The well-to-do classes seem to have been more generally attacked than the working classes; and this may have in some measure arisen from the children sent home from the Lycæum. It is also suggested that the sewers may have had something to do with the spread amongst this class, these receiving a portion of the fluid contents of the cesspools. However this may be, the disease was entirely absent in the poor quarters of the town, where these sewers do not exist, but which, it is to be observed, are situated on an elevated position. Still, in former epidemics it is by these poorer and higher parts of the town that the disease has commenced. The military hospital, also, situated in the same part of the town, had no typhoid cases, while another placed in the centre of the town received 244 cases, of which number 86 were very severe.

Not only has the course of the disease been unusual as regards the localities it occupies, but the symptoms have been so different from those usually met with as to lead some to doubt at first whether they were dealing with typhoid. Thus, the period of invasion has lasted often from eight to fifteen days without becoming decided, and yet being accompanied by great debility. Epistaxis has also generally been present, and the severity of the rheumatic pains has been such as to lead to the expectation of acute rheumatism. After the diagnosis had been made out, the tongue remained large and spread out, and, in place of becoming dry, exhibited dental impressions, and was covered with a yellowish or greyish deposit. The abdomen, covered with rose-coloured spots, remained supple, undistended, and insensible even to forcible pressure. Diarrhœa was not a constant symptom, and there was little or no splenic engorgement. On the other hand, more or less intense bronchitis was much oftener met with than in ordinary typhoid. Great elevations and oscillations of temperature were observed from the beginning, it not being a rare thing for the thermometer to descend from 41° to 39° C. and reascend to 41° C. or higher. It was surprising to meet with these high temperatures in patients in whom the pulse was only 92 to 96. Adynamia predominated in most of the cases; but in place of the dry acrid and burning skin giving forth the peculiar smell which may be termed the "typhic odour," the skin was often moist and sometimes sudoral. This phenomenon conjoined to the frequency and intensity of the pulmonary complications, and especially to the marked general debility extending into convalescence, recalled to mind influenza and catarrhal fever, so that there might be hesitation in the diagnosis had it not been for the rose-coloured spots, the diarrhœa and other abdominal symptoms, the duration of the disease, and post-mortem examinations. We are not yet in possession of the exact returns relating to this epidemic, which has now nearly passed away; but the registration returns of Lyons state that 156 deaths from typhoid fever occurred between April 20 and May 17. Cold-water baths have proved of great utility, especially in some cases—the slighter ones seeming to be rendered more tedious by their use. The two medical societies have formed a joint committee for the purpose of preparing a report on the outbreak.

Professor Sigmund on the Treatment of Syphilis.

Professor von Sigmund, of the Vienna General Hospital, addressed an interesting communication to the *Giornale Italiano delle Malattie Veneree* for February, having for its title "On the Suitable Time for Commencing the General Treatment of Syphilis, and on the Choice of the Method of Treatment." As the result of his prolonged experience and observation, he lays down the following rules:—1. The methodical general treatment of syphilis should, as a rule, be commenced when undoubted signs of the general disease are manifested in organs situated at a distance from the point by which the contagion obtained access. 2. For this general treatment, mercurial preparations should be preferred to all other therapeutical means. 3. The treatment should be continued, uninterruptedly or periodically, according to circumstances, as long as the symptoms of the disease persist or reappear. 4. The phenomena of other concomitant diseases should be treated according to their indications, precisely as if syphilis did not exist. 5. A hygienic regimen accurately adapted to each case constitutes a fundamental rule of treatment, and the diet of the patient should, as a general rule, be decidedly tonic.

In some cases in which appropriate treatment of the primary local forms has been adopted, unimportant consecutive forms only succeed, or these may be entirely wanting. A moderate amount of infiltration of the lymphatic glands, a passing erythema of the skin and the mucous membrane of the palate and pharynx, and at the most a little tumefaction of the tonsils, with slight febrile action, and sometimes rheumatoid pains, then constitute the exhibition of the disease. By the sole use of non-specific remedies, with a properly adapted diet, the whole of these symptoms usually disappear, with the exception of the glandular tumefaction, which also, in the course of some months, becomes considerably diminished. These cases are especially observed in the female sex. Now, if during this period specific remedies are resorted to, of what value can such cases be as statistical data? The spontaneous cure of syphilis in the sense indicated can only be called into doubt by those who cannot or will not observe. The necessity for general treatment, even before the appearance of the general

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forms, exists, on the other hand, when we have to do with pregnant women or with local forms, which produce, without any other cause for them being discoverable, extensive indurations or rapid destruction of the skin and connective tissue. In pregnant women, who moreover often present similar infiltrations, and in whom we have always to take into account the disease and death of the fœtus, general treatment should be commenced as soon as possible.

As to the choice of mercurial preparations for general treatment, this may be decided according to personal circumstances; but as a fundamental rule preference should be given to those employed externally, and that especially because of the greater certainty of the results obtained. Fumigations, although warmly recommended of late, present greater difficulties than do frictions and injections. Although Dr. von Sigmund has, from prolonged experience, become a determined defender of the treatment by frictions, he is willing to allow that there may be advantages in the employment of injections. They may be tried, and will oftentimes suffice, and when they fail recourse can still be had to frictions. For the most part, however, patients object to them, although the pain they cause is slight, and the abscesses they may give rise to are of little importance. During the last two years he has employed injections of calomel, as recommended by Professor Scarenzio, with sufficient frequency to enable him to pronounce favourably upon it as compared with the sublimate. By employing small doses of calomel the production of abscesses is prevented, and the continuous treatment which this permits secures a better result. Neither by this nor any other mode of treatment, however, can we give security against relapses. These, which are often only ulterior developments of known forms, and generally to be explained by individual peculiarities of the patients, must be treated just as the earlier forms. In the treatment of all cases of syphilis it cannot be sufficiently recommended that we should guard against "furiously assailing them with medicine" and the neglect of the surveillance of the patient's hygiene and diet. The promotion and maintenance of the physiological functions are of far more importance in the treatment of syphilis than the employment of any pharmaceutical substance. Of iodine as an anti-syphilitic remedy Dr. von Sigmund entertains a very low opinion, believing it only capable, like various other remedies, of removing or mitigating the complications of syphilis, and by isolating it rendering its treatment more easy, and also of relieving some of the symptoms of mercurialism.

REVIEWS.

The Puerperal Diseases. Clinical Lectures delivered at Bellevue Hospital. By Fordyce Barker, M.D. London: J. and A. Churchill. 1874. Pp. 526.

This is an excellent book, containing real clinical work, and will be welcomed by the advanced student and busy practitioner. As an attempt to group together all the diseases of the puerperal state, their diagnosis and treatment, it reflects great praise upon its industrious and able author. The commencing remarks on puerperal convalescence and the diet of puerperal women are most judicious, and have seldom been so fairly placed before the profession. The giving a dose of ergot as a preventive measure against post-partum hæmorrhage, and to a certain extent as a prophylactic against after-pains, though not new, are points not insisted or acted upon so generally as they should be. The question of secondary hæmorrhage and its causes is fully gone into, and great stress is laid upon the necessity of presence of mind in the accoucheur: on such occasions "you can act coolly yourself, give directions to others in a quiet but firm manner, and thus inspire confidence in the attendants and friends who are present. This greatly assists in keeping up the *morale* of the patient, and may be the essential element of success, without which your physical resources might fail." As to diet, he quotes appropriately "the judicious" Denman, whose rule was to place his patient at once upon a regimen accordant with her previous habits. Dr. Barker throughout his work shows decided belief in the efficacy of drugs, and gives many elaborate and useful formulæ for the administration of them; but why he is so inimical to the old-fashioned castor oil we do not know, and we cannot agree from our experience in his statement that it frequently causes severe suffering from piles. We still hold it to be, though disagreeable, one of the most efficient laxatives we possess. We do not either think that the plan of forcible dilatation recommended by Dr. Van Buren (p. 35) will meet with many followers in this country. Speaking of lacerations of the perineum, he states that these are much more common than usually supposed, judging from the number of cases that turn up in daily practice—an accident that is unavoidable occasionally in the hands of the best obstetrician. As a frequent cause of it he names the existence of an unduly straight sacrum. Discussing the question of supporting the perineum as a means of preventing this accident, he gives the method of Dr. Goodell (p. 50), which, though useful in some cases, we are inclined to think would, if generally employed, be productive of very mischievous results. The chapters on puerperal albuminuria and convulsions are full of thought, and the symptoms of the former well worked out. The indications for treatment and the propriety of inducing premature labour in these cases are discussed fairly, the author's opinion as to the advisability of the latter course being very firmly insisted upon. The chapter upon mastitis and mammary abscess is clearly and concisely written, and the different forms of the latter lesion classified for the purpose of practical treatment. The lecture on puerperal mania contains nothing very new, but the influence of the moral emotions as the great exciting cause of the disease appears to be recognised as generally in America as here, as also the frequent coincidence of hereditary insanity. The observations on relaxation of the pelvic symphyses are interesting, cases of this kind occurring more frequently than has been supposed, since attention was first called to the subject in Trousseau's "Clinical Medicine," it being only lightly, if at all, touched upon in our obstetric text-books; many cases of so-called paralysis after labour being now referred to this cause and successfully treated. On the other interesting chapters on phlegmasia dolens, thrombosis and embolism, and phlebitis, also the remaining group containing the different forms of puerperal fever, and the effects of what may be called puerperal blood-poisoning, we should like to have commented, but we must leave our readers to accomplish this for themselves, merely saying that in Dr. Fordyce Barker they will find a safe guide.

One conclusion forced upon us after the perusal of this book—and it is a point on which we have often insisted—is the inadequacy of the time at present allotted to the teaching of these subjects in our schools. While the lecturer on midwifery is expected in a course of three months to teach midwifery, diseases of the pregnant, puerperal, and unimpregnated states, also the diseases of children, the student is likely as not, after having obtained his diploma, to enter upon his professional duties with a most imperfect knowledge of, probably to him, the most important part of his daily work.

The Fifty-third Annual Report of the Charing-cross Hospital. 1874.

The fifty-third annual report, for the year 1873, of this Hospital, which has just been published, consists of two entirely distinct parts. There is first the report usually drawn up by the resident secretary of such institutions, which, after being authorised by the Council, is presented to the annual general court of governors. To this is added an account of the disbursements and a list of the governors and donors. From it we learn that the Hospital is in a very prosperous state, both in a pecuniary aspect and on the score of an increasing number of patients. During the year 1873 the sum of £10,383 7s. 8d. was received over and above the amount equal to that received in 1872; while the numbers treated as out- and in-patients were more than 750 in excess of any previous year.

The second part is that with which medical governors are most concerned, and consists of the reports of the medical and surgical registrars. None but those who have had actual experience in compiling the tables of the kind contained therein can form any adequate notion of the laboriousness and tediousness of the work; and on this account alone Dr. Mitchell Bruce and Mr. Macdonald McHardy would command our congratulations. But, in truth, these reports of the registrars have been executed with evident care and much intelligence, and the only adverse remark we have to make is a regret that they did not appear by themselves and altogether apart from the general business report of the Council of the Hospital.

Dr. Bruce's report is accompanied by four tabulated statements. The first of them shows the various diseases for which the patients were admitted, the sex of the patients, and the results of treatment. The second gives the cases of acute

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diseases, other than rheumatism. The third gives a very valuable return of the principal cases of acute and subacute rheumatism, with details respecting the causation of the disease, its connexion with diseases of the heart, the duration of treatment, and the results of various kinds of treatment. The fourth table furnishes an outline of the results of the post-mortem examinations made during the year on persons who had died in the medical wards. This last table is concise and convenient for reference, and gives a most excellent summary of the post-mortem appearances of seventy-seven cases.

Mr. Macdonald McHardy's report consists of two tables. No. 1 shows the various injuries and diseases for which the patients were admitted into the surgical wards, and contains a large column for explanatory remarks, some of which are of considerable length for a tabulated form. The second table supplies a list of the operations performed during the year. It is the fullest and best-arranged table on this head of all the hospital reports known to us, and it may with advantage be copied by the registrars of other hospitals. It comprises the particulars of the operation itself, notes of the progress of the case, a brief history, and the symptoms at the time of admission, with the result of each case. The Surgical Report, as a whole, might be made a little fuller; but what there is of it is, like the Medical Report, well done.

On the Modified Turkish and Vapour Bath, and its Value in certain Diseases of the Skin. By J. L. MILTON, Senior Surgeon to St. John's Hospital. London: Robert Hardwicke.

IN the pamphlet before us the author points out the great value of vapour and Turkish baths, especially the former, in obstinate cases of psoriasis, chronic eczema, and a few other skin diseases. The Turkish bath is most useful in the rheumatism, gout, and neuralgic affections with which some cases of eczema are complicated. Unfortunately the expense of giving vapour-baths to skin patients, except those of the upper classes, has hitherto prevented their extended use in medical practice, and there are also natural objections to the exposure of such patients in public bathing institutions, where healthy people are also present. In private houses, also, the cost of the necessary apparatus has precluded its adoption by persons with ordinary means, and various attempts to lessen it have terminated in a failure more or less complete, and in accidents from the heating power employed. For these reasons Mr. Milton has been led to devote much attention to the best mode of procuring a cheap and portable vapour-bath, suitable to any room, and which could be quickly put into operation; and, judging from his description, he has at length succeeded. By means of a Russian lamp, and a copper boiler so arranged that the surface of water to be heated is very considerable, he is able to produce plenty of vapour in a short time. The patient sits on an ordinary chair enclosed in a bell-shaped covering of non-conducting material, and the whole apparatus is perfectly safe. The bath is durable and can be carried about in an ordinary carpet-bag, and the spirit used to charge the lamp each time costs less than a penny, so that no objection to it can be made on the ground of expensiveness. Patients are not liable to take cold after vapour-baths, even if they go at once into the open air.

Mr. Milton deserves great credit for his labours to make these baths more generally accessible, and for the unprejudiced way in which he discusses their value. He does not claim that the vapour-bath is a universal cure, and for this reason his statements deserve respect. We can strongly recommend his book to the perusal of our readers.

Les Eaux Thermales de l'Ile de San-Miguel (Açores).
The Hot Springs of the Island of St. Michael in the Azores. Lallemant Frères. Lisbonne. 1873.

THE island of St. Michael in the Azores, the most important of that small and isolated group of islands, contains some hot mineral springs of considerable value, as far as analyses and the reports appended to the work before us permit us to form a judgment. They are situated in the valley of Furnas, about thirty miles from the principal town of the district Ponta Delgada, in a most picturesque spot, surrounded with vegetation of the most luxuriant kind. Furnas itself has good accommodation for visitors, and a large bathing establishment is in course of construction there.

There are several hot springs varying in temperature from 40° to 85° Cent. All contain free carbonic acid in large

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divided into twenty equal parts. The diagonal line helps to make a still finer division if required. As $\frac{1}{1000}$ of an inch is the usual standard in English measurements, we will suppose that we are using a power of 250 diameters. Then an object measuring $\frac{1}{1000}$ of an inch will exactly fill five of our spaces, or one-quarter of our inch. Or if we use the same power to examine a frog's red blood-corpuscle, measuring $\frac{1}{1250}$ of an inch in its long diameter, $\frac{250}{1250}$ of an inch $= \frac{1}{5}$, or $\frac{1}{5}$ inch nearly. Now, $\frac{1}{5} = \frac{4}{20}$, therefore our frog's disc, lying lengthways, will with this power fill up nearly four of our spaces on this scale. Take another illustration, which occurred in the class the other day:—A student placed a hair under a $\frac{1}{4}$-inch objective, and found that with eyepiece No. 1 (a combination known to magnify about 300 diameters) it filled up twelve of the spaces. Now, $\frac{12}{20} = \frac{600}{1000}$, and this divided by $300 = \frac{6}{3000}$ or $\frac{1}{500}$ of an inch, which was the diameter of the hair in question. Again, suppose a student wants to know the magnifying power of his highest objective. He knows that a human red blood-corpuscle—size $\frac{1}{3500}$ of an inch—will, with a power of 300, fill up nearly two of these spaces on his micrometer (1·81); with his own lens, however, the red blood-disc only fills up one space and a quarter (1·25). Therefore, as 1·81 is to 1·25 so is 300 to 200 (nearly), which is the magnifying power (in diameters) of his objective—a power which, though useful enough in its way, he soon finds to be insufficient for general use in his medical studies. In using the scale, the paper should of course be held on a level with the stage of the microscope, and in this way considerable accuracy can be gained. A little turpentine or varnish will enable the scale to be used as a cheap stage micrometer when gummed on to glass. My object is not to supersede more accurate methods of mensuration, but to accustom students to microscopic magnitudes compared with real measurements.

If any of your readers, having histology classes, would like to try the plan, I shall be happy for your printer to supply them with impressions from the electro.

I am, &c., W. Bathurst Woodman.

London Hospital Medical College.

REPORTS OF SOCIETIES.

CLINICAL SOCIETY.

Friday, May 8.

Prescott Hewett, F.R.C.S., President, in the Chair.

Mr. Callender exhibited, for Dr. Hollis, a new Sarcotome, already described.

Mr. Cripps gave details of a case in which Palmar Aneurism was consequent on a punctured wound, and presented itself as a small pulsating tumour between the thumb and second metacarpal bone. On the sac being laid open, it was found impracticable to secure the artery at the wounded point. The wound was plugged. Five days later, sharp hæmorrhage suddenly occurred. Pressure, position, and bandaging were tried; but, after the bleeding had several times recurred, the radial and ulnar arteries were ligatured. On hæmorrhage again taking place, two days later, digital pressure on the brachial was resorted to and kept up for seven full days. Shortly after this was relaxed, the distal end of the ulnar, where tied, bled, and on the following day blood once more flowed from the original wound. The brachial artery was then tied immediately below the teres major. All hæmorrhage was thus completely arrested, and the patient made a good recovery. In the notes of seventeen cases of palmar aneurism, the following treatment and results were recorded:—Nine cured by pressure, two by ligature, one by injection into the sac; five in which the sacs were in some way opened, and of which one was cured; three died of hæmorrhage; and one was the above case. In conclusion, cases were mentioned to show the futility of ligature of the radial and ulnar for hæmorrhage from the palm, since these vessels can be easily and effectually commanded by pressure. If bleeding continued notwithstanding this compression, it would point to an abnormally free anastomosis with the interossei, which could only be controlled by pressure or ligature of the brachial.

Mr. Pick mentioned the case of a man wounded in the palmar arch. A compress stopped the bleeding, which recurred [illegible]oval. Finally sloughing ensued, and the radial artery still the bleeding recurred, and the ulnar was next tied. At last amputation had to be employed, and this was followed by pyæmia and death. He thought forcible flexion of the forearm was the best thing in such cases; it stopped radial pulsation, and was followed by a cure in most instances. In a wound of the radial just above the wrist, which led to the formation of an aneurism, this method failed; the aneurism was therefore laid open, and both ends of the vessel tied.

Mr. T. Smith, in whose practice the case narrated had occurred, said that the arm had been flexed, and a pad placed in the bend of the elbow; pads had also been applied to the radial and ulnar vessels. Compression of the brachial was tried, and it arrested the bleeding for some time. In this case there seemed to be something peculiar in the patient's constitution, for on two occasions alarming bleeding had followed tooth-drawing. He thought in such cases it was better to begin with tying the radial and ulnar than at once to have recourse to tying the brachial.

The President mentioned a case where, after a wound of the palmar arch, an aneurism of the part followed. This was cured by localised pressure.

Mr. Cripps, in reply, said that prolonged flexion interfered with the return of the blood. If pressure on the radial and ulnar did not control the bleeding, it would be useless to tie them.

Dr. Ogle described a case of Pyæmia, the cause of which was undiscovered, which terminated by Thrombosis of the Veins of one Leg. The patient, aged twenty, was engaged in stable-work, and had never had syphilis, gout, rheumatism, nor, in fact, any disease or any injury. He was admitted into St. George's Hospital on January 14 last. He was then suffering from pyrexial symptoms, with pain in the head and abdomen, and had a temperature of 105°. On the day following, the temperature had risen to 105·8°. It appeared that all the thoracic and abdominal organs were free from disease, and the patient had only been ill and left off work four or five days. After being in the hospital a few days, albumen was found in the urine, which had hitherto been free from it. At first, it was surmised that the case might prove to be one of continued fever; but, as days went on without the occurrence of diarrhœa or the appearance of any spots on the surface of the body, and as at the same time the temperature was reduced so that on two days it was even below the normal, this estimate of the case was abandoned. About ten days after admission, pain came on in the right shoulder, along with swelling, but no redness; and, four days later, pain came on (followed by swelling) in the wrists, which gave rise to the suspicion that there might be a rheumatic element in the case. There was, however, at this time no increased perspiration, and no acid odour about the skin; nor was the urine high-coloured. Two or three days later, great perspiration (though not acid) came on; and a considerable rigor occurred, the temperature reaching 105·8°. This gave a very decided character to the case. Subsequently, during the course of three weeks, he had five rigors and effusion into the wrist-joints, with very great pain, requiring, at the suggestion of Mr. Pick, who saw the case with Dr. Ogle, the use of a splint. During this period, the patient was well supported by generous diet, and took three-grain doses of quinine every four hours for a length of time; and the pain in the joint was relieved by poultices and anodyne applications. The temperature fluctuated immensely, on some occasions reaching as high as 106·2°, and at others being as low as 96·4°. The pulse was not high in any direct proportion to the temperature. The temperature by no means followed the course ordinarily observed either in rheumatic or typhoid fever. The pain and swelling in the shoulder-joint had departed as that in the wrist-joints came on; and this was diminishing when, on March 1—that is, six weeks after admission into hospital—pain began to be complained of in the upper part of the left thigh and about the hip-joint; and the swelling and pain so increased, that it appeared evident that an abscess was in process of formation. To this Mr. Pick agreed; and, as the pain and swelling increased, and fluctuation was clearly recognised, it was expected that shortly it would be necessary to interfere by operation. In a short time, however, relief to pain was obtained; the swelling greatly subsided; but the entire left leg was obviously enlarged, and not merely the thigh. The patient improved, and began to get about the ward, and soon wished to go home. From time to time his movements had to be checked, owing to increased pain and swelling, which were produced by standing or walking. On the whole, no serious drawback to convalescence took place; and, when shown to the Society, the only points about his condition worthy of notice were the general enlargement of the

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entire left leg and thigh (its circumference measuring one inch more than the corrresponding part of the opposite limb, both in the thick part of the thigh and at the calf), and a certain degree of hardness in the region of the large vessels under Poupart's ligament, as also some thickening and tenderness of the parts about the left wrist, which prevented free use of the joint. Dr. Ogle pointed out specially that the patient had never sustained injury, had had no suppurating disease or phlebitis, or known disease (as syphilis, gout, or fever) in any organ which could have led to the above affection; and was desirous to learn whether the Society considered that it might have been "spontaneous" in origin. A comparison of dates showed that it was many weeks after the setting in of the disease that any trouble about the thigh began—an occurrence which no doubt indicated that plugging of the veins of the part had come on. Dr. Ogle exhibited a chart of the temperature and pulse, showing that the former often rose as high as above 104°, on two occasions almost as high as 106°, and on one occasion above that degree, often descending immediately even below the normal. The pulse by no means corresponded in frequency with the height of temperature, at one time being 61 when the temperature was above 105°.

Dr. B. Yeo said that there seemed to be plugging of the veins in this case. Such an occurrence was not unusual during the past winter.

Mr. B. Carter narrated the case of a lady exhausted with nursing a sick child. She jumped out of bed in the cold. This was followed by cessation of the catamenia, and her temperature rose to 104° Fahr.; the joints became swollen and painful, and there was copious perspiration. Ultimately phlebitis of both arms was developed, after which the temperature fell.

Dr. Southey referred to the case of a female patient who had in succession thrombosis of the vessels of all four limbs. He suspected pressure from some internal tumour, and this after a time was developed, for she died of mediastinal cancer. Dr. Greenhow had also given a case where thrombosis of various veins had arisen in the course of syphilis.

Dr. Greenhow said that in the case referred to there was no unusual rise of temperature. In a case arising from gout there was no such rise. Retardation of the circulation did not always give rise to plugging. He had seen a lady who was quite blue, though no disease of the chest was discoverable. After death this was found due to a mediastinal tumour pressing on the superior cava. There was no plugging.

The President had seen several cases of thrombosis the last two winters. One patient was a medical gentleman. He had thrombosis, first of one leg, then of another, and next cerebral symptoms, which pointed to plugging of some of the vessels about the brain. In this case the heart-sounds were so feeble as to be scarcely audible.

Dr. H. Weber read cases illustrative of the Communicability of Consumption from Husband to Wife. He had tested the question in his practice during more than twenty years, his attention having been first directed to it by some striking cases. He had the history of the results of twenty-nine marriages between women with more or less marked signs of consumption who married healthy men, and of fifty-one marriages of tainted men who married healthy women. While only one of the husbands of the twenty-nine diseased wives became consumptive, eighteen of the fifty-one healthy women married to diseased husbands died from consumption. The eighteen women were the wives of nine husbands, one of whom lost four wives, one three, four two, and three one each. Dr. H. Weber gave an abstract of the histories of these nine husbands and eighteen wives, and then discussed the following points:—1. The communicability of consumption from husband to wife he did not regard as established, but as rendered probable; he could scarcely consider the results of his experience as merely accidental, although the risk of communication was probably not quite so great as it would appear from his cases. 2. The means of communication between husband and wife seemed to exist only rarely in the inhalation of the breath, though he did not regard this as impossible, but more frequently in the seminal fluid, either by direct absorption of the latter, or indirectly through the fœtus. 3. The suggestion made to him, that possibly the infecting husbands were tainted with syphilis, was not supported by the examination of the facts, either those relating to the husbands or those relating to the wives, including the post-mortem appearances. 4. The rapid course of the disease in the wives manifested more or less the character of galloping consumption, while the affections of the originally diseased husbands were in all cases chronic and quiescent, but well-marked, and leading in all cases but one to a fatal termination, though long after the deaths of the wives.

The discussion on this paper was adjourned to the next meeting.

ROYAL MEDICAL AND CHIRURGICAL SOCIETY.

TUESDAY, MAY 12.

Dr. C. J. B. Williams, F.R.S., President, in the Chair.

Mr. Charles Higgens read notes of two cases of Hæmorrhagic Diathesis occurring in two brothers who were the subjects of hæmophilia. The family history furnished a good illustration of the mode of transmission of the disease from the maternal grandfather through his daughter, who was not a bleeder, to five males of a family consisting of seven boys and one girl—the girl, as is the rule, being one of the exceptions. It also appeared that hæmophilia, although often fatal, does not of necessity shorten life, as the grandfather above mentioned lived to the age of eighty-six and died of old age. Another point of interest was the firmness with which the blood coagulated; in each of the cases reported well-formed clots were produced, showing that the hæmorrhage was not due to want of coagulability.

The President thought that if a chemical analysis of the blood was made it might throw some light upon the affection.

Mr. Sedgwick said that early observations tended to prove there was no difference of structure of the small bloodvessels. In three published observations, thinning of the arterial walls was met with. German observers said it was not due to structural peculiarities of the vessels. He thought it would be well to examine the vessels in case of death. The study of the family history would show that the vessels, not the blood, was at fault. There was a tendency to outgrow the affection after a certain age.

Dr. Wickham Legg said that the chief feature in the natural history of the disease was its hereditary character. A singular case had been lately brought under his notice, where the hæmorrhagic tendency could be traced back in the family as far as 1740; in the same village there were many families in which the boys bled from the bowels or the kidneys. The blood had been analysed in Germany, but it was not found to differ from the normal standard. He believed the affection depended upon some change in the bloodvessels.

Mr. Richard Barwell read a paper "On Septic Disease, in and out of Hospital." The subject of the death-rate in hospitals having of late years, and especially during the commencement of the present year, attracted much attention, the author was induced to re-examine hospital reports, comparing them especially with Simpson's statistics in his celebrated papers on hospitalism. Sir James ranges together hospitals of similar sizes, adds their death-rates, and draws the conclusion that the mortality increases with the number of beds. By taking each hospital separately (adhering to Simpson's numbers) and arranging them according to their mortality, Mr. Barwell formed a table of those with 50, 40, and 30 per cent. of deaths, and so on; and by this table it appears that in each class there are hospitals of every dimension—in the highest class some of the smaller, in the lower classes some of the larger: hence he concludes "that the size of a hospital has no influence on its mortality." In studying the Registrar-General's returns in different towns and districts, the author found that the death-rate from erysipelas (the only septic disease in this table) varies with the density of the population in a ratio sufficiently close to warrant the conclusion that the one has an intimate relation to the other. The mortality after amputations (as given by Simpson) is then compared with the erysipelas death-rate of the district in which the hospital is situated. With certain palpable exceptions, accounted for by the condition of the institutions, the comparison shows a striking proportion between the two sets of numbers: hence "the mortality of a hospital varies remarkably with the erysipelas death-rate of its neighbourhood." The general outcome of these comparisons appears to be that overcrowding, ill ventilation, and other defects will produce a high death-rate from septic disease out of hospital; and since hospitals in towns are filled by the class thus rendered receptive of septic influence, there will in hospitals of large towns be a higher death-rate than in villages. But if the hospital itself be not overcrowded, ill-ventilated, etc., this death-rate will be proportional to that

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outside, or below that proportion; therefore, "hospitalism does not exist," if the term be taken to mean an evil influence necessary to hospitals and inherent in their very nature, whether ill or well arranged. The author then gave the statistics for some few years past of the Charing-cross Hospital. During this period a considerable number of grave operations were performed, including herniotomy, lithotomy, amputations of hip, excisions of large joints, etc.; and Mr. Barwell preferred giving all these statistics together, instead of confining himself to amputations. The low rate of mortality—viz., 29 per cent.—he attributed to certain hospital arrangements, as well as to excellent and cleanly nursing; but he also strongly insisted on the necessity of careful watchfulness, especially on the value of thermometric observations, on the desirability of changing the bed when a rise in temperature sufficient to forewarn occurred, and also on the value of large doses of quinine under like circumstances. In conclusion he deprecated the word "hospitalism" and the idea it conveys, as causing surgeons to acquiesce in a large death-rate as inseparable from hospital practice.

Mr. Holmes said there was great difficulty in using Simpson's figures, as nothing precise was attached to them. The tables gave the statistics of operations in various hospitals, each with their varying rates of mortality; but took none of the facts relating to severity into consideration. Thus the rate of Middlesex Hospital was put down as 70 per cent., and Canterbury as 5 per cent. If two men with a like injury were operated upon, one at each hospital, it would seem that the one in Middlesex would run about fifteen times the risk of the one at Canterbury, which was preposterous, and carried its own refutation. Sir James Simpson gave no details or explanations of the cases collected, and so different things under different conditions were compared. When Simpson compared the rate of mortality of two hospitals, and fixed one at 5 per cent., the class of amputations performed was omitted, for such a rate of mortality in a metropolitan hospital was impossible, on account of the injuries for which operations were performed. If, in a case of compound fracture high up in the thigh, the patient was allowed to die rather than swell statistics, as had been recommended, and if all patients not likely to recover were left to die without aid, the statistics of the hospital were lowered, but the condition of the patients was not improved. The statement that an operation performed in a dirty cottage would do as well as in a good hospital was absurd. One had only to look at hospital out-patients to see how the cases thus treated did, as compared with those inside. In hospitals the large plastic operations requiring a rapid union were usually performed with success. This would not be the case if the hospital was the seat of erysipelas and septic disease. He would not assent to any percentage of septic disease being inevitable. By the more careful treatment of wounds and greater attention to the arrangement of the patients, the proportion of such disease was much lowered.

Mr. Spencer Wells said that Simpson collected facts and brought them under the notice of the profession; he did not think he should be attacked because he showed the existence of an evil. Simpson's facts had had a most important result. More attention had been paid to the salubrity of hospitals lately, and the patient was put in a good position after operation, and attention paid to the dressings, etc. He thought Mr. Barwell's statements as to "urbism" could only be considered in reference to the same city. Mr. Barwell had said that ovariotomy should not be performed in hospitals in which pyæmia and erysipelas were present; he would say that no large operation should be performed there under such circumstances.

Dr. Drysdale said he had seen bad results from the overcrowding of patients in hospitals, and thought that hospitalism was a fact.

Mr. Hutchinson said that while sympathising with Mr. Holmes as to the way in which Simpson used his statistics, yet we owed a debt of gratitude to him for what he had done; he had diminished the rate of mortality during the last few years. Simpson, he thought, was right in the main, though his statistics were fallacious. He thought the term hospitalism was applicable to a large amount of mortality in hospitals, and due to the conditions of the hospital alone. He did not believe that it always depended upon the size of the hospital. He was at Dover lately, and on going into the hospital found there was an epidemic of erysipelas; there it did not depend upon the size of the hospital, but upon exposure to contagion. [illegible], as must be admitted, the mortality after ovariotomy was great in hospitals where all operations were performed and students attended, as compared with the results in special hospitals and in private cases, then it was necessary to allow there was something in connexion with the hospital; and since it is so, why not apply the same rules for other operations as for ovariotomy? He thought there was a large amount of preventable disease, and much might be prevented if attention was directed in the way Simpson indicated. He would like to have heard what Mr. Barwell meant by septic disease, what it included, and how it attacked the patient; how gonorrhœal rheumatism and pyæmia were allied, and so on. Till that was known no conclusion could be arrived at.

Dr. Fayrer said that when he joined the hospital at Calcutta no case of amputation at the thigh recovered. There was a plentiful supply of air, but the ventilation was badly arranged. As a consequence, in his experience, out of 37 amputations at the thigh, 18 deaths followed from pyæmia; 61 of leg, with 18 deaths; 28 of foot, with 5 deaths; 11 of shoulder, with 3; 14 of arm, with 3; 15 of forearm, with 3; and 62 operations on the hand, with 3 deaths. Improvements were made as regards ventilation, and the number of beds in each ward lessened. The mortality promptly diminished, and osteo-myelitis almost disappeared, whilst the other forms of infection were not so virulent. The malady was not due to hospitalism alone, for he had often seen the disease outside.

Mr. Barwell having replied, the meeting adjourned.

OBITUARY.

EDWARD CHARLTON, M.D.

This well-known physician was the second son of William John Charlton, of Hesleyside, Northumberland, where the family had resided since the early part of the fourteenth century. He was born at that place in 1814, and received his early education at St. Cuthbert's College, Ushaw, Durham. He became M.D. both of Edinburgh and Durham in 1836, and shortly afterwards established himself in practice in Newcastle-on-Tyne, where he has for some time past been one of the leading physicians. He was rather a man of extensive acquirements and most painstaking than of much originality of thought or practice; but he was a great favourite both with his patients and his professional brethren. He took much interest in antiquarian literature, and published several works in relation to it. He wrote also an able *brochure* on "A History of the Scarlatina Epidemic in Newcastle, 1847." Dr. Charlton was hon. member of the Royal Swedish Academy of Medicine, Stockholm; member of the Medical Society, Christiania; Physician to the Newcastle-on-Tyne Royal Infirmary; formerly President of the Royal Medical Society, Edinburgh; and in 1870 he was President of the British Medical Association, which held its meeting that year at Newcastle, and fulfilled the office in a dignified and able manner. Dr. Charlton was taken ill on May 12 with gastralgia, which was relieved by soothing treatment. On the morning of the 14th he was seized with a sudden pain in the region of the heart, accompanied by faintness, and died almost instantly. The cause of death was found to be rupture of the left ventricle of the heart near the apex. Dr. Charlton's family (as was himself) were Catholic, and he strictly adhered to that faith. His funeral was attended by a number of the medical and surgical officials of the Infirmary, the University, and the School of Medicine, with which he was connected.

Yellow-fever continues at Rio de Janeiro; the deaths average nine daily.

The Hospital for Consumption, Brompton.—The Hospital for Consumption and Diseases of the Chest at Brompton continues to increase its accommodation. This it is enabled to accomplish through the munificent donations of which it is the frequent recipient. Twenty-four bequests had been announced to the Committee during 1873, of which ten had been received, amounting to £2775 8s. 6d. Three more houses have recently been purchased, making in all thirteen, for the site of an additional wing for in-patients, and the intended new out-patient department. The scheme of temporary extension already announced has been further carried out: two more houses have been fitted up and furnished, thus increasing the accommodation in the south wing to thirty-six beds, and making a total of 246 beds altogether in use in the Hospital.

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MEDICAL NEWS.

ROYAL COLLEGE OF SURGEONS OF ENGLAND.—The half-yearly examination of candidates for the diploma of Fellowship of the College was commenced on the 22nd ult., when sixty-nine gentlemen offered themselves at the written examination, to whom the following questions in Anatomy and Physiology were submitted; all four questions were required to be answered, viz.:—1. Describe, in their relation to each other and to the several parts in contact with them, the muscles which form the floor of the posterior triangle of the neck. 2. Name the structures, in their relative order, which would be necessarily divided in cutting out the last rib through an incision made in the skin over it. 3. At what period of embryonic life does the formation of the liver commence? Describe the process of its development up to the period of birth, and the changes it undergoes during the first year after birth. State what functions it performs during intra-uterine life. 4. What arrangements exist for neutralising the effects on the brain of shock, in jumping from an elevation on to the feet? Describe the mechanism of these arrangements, and how they act.

The oral examination took place on Monday, the 24th ult., when the following gentlemen passed, viz.:—

Bird, Cuthbert Hilton Golding, B.A. and M.B. Lond., Elgin-crescent, Notting-hill, diploma of membership dated April 16, 1872, student of Guy's Hospital.
Brietzcke, Henry, L.R.C.P. Lond., Margaret-street, Cavendish-square, July 29, 1863, of Guy's Hospital.
Chicken, Rupert Cecil, Guy's Hospital, April 30, 1872, of Guy's Hospital.
Mackenzie, Lewis, L.R.C.P. Lond., London Hospital, November 15, 1871, of the London Hospital.
McGill, Arthur Fergusson, L.S.A., Park-square, Leeds, November 18, 1868, of King's College.
Osborn, Samuel, L.S.A., Gresham-park, Brixton, January 26, 1871, of St. Thomas's Hospital.
Pughe, Rhinallt Navalw ap Joan, Mornington-road, N.W., April 22, 1873, of the Liverpool School.
Rossiter, George Frederick, of St. Thomas's Hospital.
Sanders, Thomas, L.S.A., Woburn-place, Russell-square, May 24, 1864, of University College.
Thane, George Dancer, Montague-street, Russell-square, November 15, 1871, of University College.
Wilsham, William Johnson, M.B. Aberd., St. Bartholomew's Hospital, November 17, 1871, of St. Bartholomew's and Aberdeen Hospitals.
Winterbottom, Augustus, Sloane-street, November 13, 1872, of St. George's Hospital.

The following gentlemen passed on the 26th ult., viz.:—

Carter, Frederick Heales, student of St. Bartholomew's Hospital.
Cock, Williams, of Guy's Hospital.
Footner, John Bulkley, of King's College.
Giles, George Michael James, of St. Mary's Hospital.
Hames, George Henry, of St. Bartholomew's Hospital.
Wilkins, Robert Bird, of University College.

The following gentlemen passed on the 27th ult., viz.:—

Edwardes, Edward Joshua, student of St. Mary's Hospital.
Murphy, Henry Howard, B.A. Cantab., of St. George's Hospital.
Phillips, Arthur Owen Henry, of St. Thomas's Hospital.
Pitts, Bernard, B.A. Cantab., of St. Thomas's Hospital.
Symonds, Chaters James, of Guy's Hospital.
Wakefield, Thomas, B.A. Cantab., of University College.

Of the sixty-nine candidates examined, forty-five were rejected.

At the pass examination, which was brought to a close last Saturday evening, only six out of the nineteen candidates passed the ordeal. The names cannot be published until submitted to the Council on the 11th inst.

ROYAL COLLEGE OF SURGEONS IN IRELAND.—At a meeting of the Court of Examiners held on May 19 and following days, the undernamed gentlemen, Licentiates of the College, having been solemnly and publicly examined on two several days, were admitted Fellows, viz.:—

Beatty, Joseph.
Boyd, Michael A.
Carte, William.
Chaplin, Samuel.
Colles, Abraham.
Davys, Frank J.
Dobby, John S., staff-surg. R.N.
Douglas, Allen E.
Fagar, Oliver S.
Fagan, John.
Falkiner, Frederick J.
Fitzmaurice, Edward.
Foy, George M.
Gore, Albert A.
Hughes, John.
Kane, Francis B.
Kelly, John B.
Kelly, George P.
Lyster, Chaworth E.
Lyster, Charles George.
Meldon, Austin.
Molony, Daniel.
Morton, Robert.
Nicholson, Edmund.
Owens, John C.
Pollock, James F.
Raye, Daniel O'Connell.
Rice, William.
Stone, Peter P.
Thorpe, Charles W.
Wills, Thomas M.
Woodhouse, Stewart.

APOTHECARIES' HALL.—The following gentlemen passed their examination in the Science and Practice of Medicine, and received certificates to practise, on Thursday, May 28:—

Armstrong, Henry George, Staines.
Brummitt, Robert, Banbury.
Burtonshaw, Thomas, Crowle, Lincolnshire.
Chinery, Charles Warner, Lymington.
Collinette, Frank de Beauchamp, Guernsey.
Crowe, George Wyndham, Hartlepool.
Evans, David Thomas, 33, Trinity-square, E.C.
Hawkins, William, Dorchester.
Paley, James Hewitt, York.
Stanigar, Francis Lionel, Jamaica.

The following gentlemen also on the same day passed their primary professional examination:—

Buckland, Alfred George, London Hospital.
Day, Edward Joseph, St. Thomas's Hospital.

NAVAL APPOINTMENTS.

ADMIRALTY.—W. J. Rankin, Surgeon, to Hong-Kong Hospital; Michael N. Greany, Surgeon, to the *Iron Duke*, additional, for sick quarters at Yokohama.

APPOINTMENTS.

*** The Editor will thank gentlemen to forward to the Publishing-office, as early as possible, information as to any new Appointments that take place.

BEDDOE, JOHN, M.D., F.R.C.P., F.R.S., of Clifton—Consulting Physician to the Hospital for Sick Children, and for the Out-door Treatment of Women, Bristol.

BROWN, GEORGE, M.R.C.S., L.S.A.—House-Surgeon to the North-Eastern Hospital for Children, Hackney.

GRIGG, W. C., M.D., M.R.C.P. Lond.—Assistant Obstetric Physician to the Westminster Hospital.

BIRTHS.

BENHAM.—On June 1, at 40, Westgate-street, Ipswich, the wife of Henry James Benham, M.B. Lond., of a son.

FENWICK.—On June 2, at 30, Devonshire-street, Portland-place, the wife of J. C. J. Fenwick, M.D., of a daughter.

PARKER.—On May 24, at St. James's-villas, Winchester, the wife of Walter Parker, M.R.C.S., of a son.

MARRIAGES.

DALGLIESH—McEWEN.—On May 28, at St. Paul's Church, Westbourne-grove, London, William M. Dalgliesh, M.D., Masham, to Anne, widow of Robert McEwen, Esq., late of Singapore.

LLOYD—MITCHELL.—On June 2, at St. Peter's, Bayswater, Ridgway Lloyd, M.R.C.S., of St. Alban's, Herts, son of the late Rev. F. B. Lloyd, of Norland-square, Notting-hill, to Catherine, daughter of Thomas Mitchell, Esq., Clifton House, Leyland, Lancashire.

WRIGHT—BUDD.—On June 1, at the parish church, Barnstaple, William Wright, Esq., of Clifton-park, Clifton, to Caroline Ethel Harriett, fourth daughter of William Budd, M.D., of the Manor House, Clifton.

DEATHS.

COLCHESTER, CECIL CONWAY, younger son of the late Edmund Colchester, M.R.C.S., at Denmark-hill, on May 30, aged 21.

EPPS, GEORGE N., M.D., M.R.C.S. Eng., at 20, Devonshire-street, Portland-place, W., on May 28, aged 58.

GEERE, GEORGE, M.R.C.S. Eng., L.S.A., youngest son of the late William Geere, Esq., of South Heighton, Sussex, very suddenly, at his residence, 21, Broad-street, Brighton, on June 1.

MERRETT, MARY, wife of W. G. Merrett, M.R.C.S. Eng., L.S.A., at Westville, Beckford, Gloucestershire, on May 28.

ROBINSON, WADHAM, third son of J. Wadham Robinson, M.D., of 163, Kennington-road, at his brother's residence, at Hemel Hempstead, on May 25, in his 25th year.

ROWLEY, LOUISA, widow of Captain Thomas Rowley, formerly of the 81th Regiment, and daughter of the late Sir James Pitcairn, M.D., Inspector-General of Army Hospitals, and Principal Medical Officer in Ireland, at Edinburgh, on May 27.

WILSON, JEANNETTE E., wife of W. Wilson, M.D., F.R.C.P. Lond., M.R.C.S. Eng., and daughter of the late Lord Wood, of Edinburgh, at Florence, on May 18.

VACANCIES.

In the following list the nature of the office vacant, the qualifications required in the Candidate, the person to whom application should be made, and the day of election (as far as known) are stated in succession.

BRADFORD INFIRMARY AND DISPENSARY.—Assistant House-Surgeon. Applications, with testimonials, to Mr. C. Woodcock, Secretary, 65, Market-street, Bradford, on or before June 8.

CHARD UNION.—Medical Officer. Candidates must be duly qualified. Applications, with testimonials, to Mr. T. B. Gould, Clerk to the Union, on or before June 15.

DERBY COUNTY LUNATIC ASYLUM.—Assistant Medical Officer. Candidates must be duly qualified in medicine and surgery. The office will be vacant on August 2. Applications, with testimonials, to John Barber, Esq., County Lunatic Asylum, Mickleover, Derby.

GLASGOW ROYAL LUNATIC ASYLUM.—Resident Physician-Superintendent. Candidates must be duly qualified. Applications, with testimonials, to J. Roxburgh Strong, Esq., C.A., 110, West George-street, Glasgow, on or before June 12.

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NEW LUNATIC FARM ASYLUM, WOODILIE, LENZIE JUNCTION.—Medical Superintendent. Applications, with testimonials, to Mr. P. Beattie, Inspector of Poor, Barony Parochial Chambers, 38, Cochrane-street, Glasgow, on or before July 1.

ST. GEORGE'S HOSPITAL, HYDE-PARK CORNER.—Resident Medical Officer. Candidates must be duly qualified. Applications, with testimonials, to the Secretary (of whom further information may be obtained), on or before June 30.

ST. LUKE'S HOSPITAL.—Resident Clinical Assistant. Applications to be sent in on or before June 11.

ST. PANCRAS AND NORTHERN DISPENSARY.—Resident Medical Officer. Candidates must be legally qualified. Applications, with testimonials, to S. S. Wigg, Esq., 33, Gordon-square, W.C.

ST. THOMAS'S HOSPITAL.—Resident Assistant-Physician. Candidates must be duly qualified. Applications, with testimonials, to the Treasurer, at the office, St. Thomas's Hospital.

SHEPTON MALLET UNION.—Medical Officer. Candidates must be duly qualified. Applications, with testimonials, to Mr. J. Malder, Clerk to the Guardians, on or before June 9.

UNIVERSITY OF DURHAM COLLEGE OF MEDICINE, NEWCASTLE-ON-TYNE. Lecturer on Physiology. Applications to the Secretary, on or before June 16.

WESTERN INFIRMARY, GLASGOW.—Superintendent. Candidates must be registered medical practitioners. Applications, with testimonials, to the Honorary Secretary, on or before June 15.

UNION AND PAROCHIAL MEDICAL SERVICE.

*** The area of each district is stated in acres. The population is computed according to the census of 1871.

RESIGNATIONS.

Cheadle Union.—The Cheadle District is vacant; area 14,017; population 7875; salary £45 per annum. Also the Workhouse; salary £15 per annum.

Cheltenham Union.—Mr. Henry Beach has resigned the First District; salary £30 per annum.

Shepton Mallet Union.—The Third District is vacant; area 13,384; population 3505; salary £97 per annum.

APPOINTMENTS.

Barnstaple Union.—Charles Hartley, M.R.C.S. Eng., L.S.A., to the Eleventh District.

Bradford (Yorkshire) Borough.—Felix M. Rimmington, F.C.S., M.Ph.S., as Analyst.

Colchester Borough.—John Wiggin, F.C.S., as Analyst.

Machynlleth Union.—John F. Jones, L.F.P. & S. Glasg., L.R.C.P. Edin., L.S.A., to the Towyn District.

Prestwich Union.—John Hudson, M.R.C.S. Eng., L.S.A., to the Bradford District.

Sleaford Union.—John H. Bissill, F.R.C.S. Eng., L.S.A., to the Sleaford District and the Workhouse.

Torrington Union.—Leonard Smith, M.R.C.S. Eng., L.S.A., to the Winkleigh District.

WE hear that Mr. Alfred Cooper has received the order of St. Stanislaus from his Imperial Majesty the Emperor of Russia.

MR. S. BOOTH obtained leave on Monday to introduce a Bill into the House of Commons to amend and extend the Sanitary Laws.

CAPT. W. H. R. SKEY, a son of the late Mr. F. C. Skey, C.B., F.R.S., President of the Royal College of Surgeons, has just been appointed Mace-bearer to the Right Hon. the Lord Mayor of London.

G. W. CALLENDER, ESQ., F.R.S.—This gentleman will commence his course of three lectures "On the Formation and Early Growth of the Brain of Man," in the theatre of the Royal College of Surgeons, on Monday next.

MR. FOX has been re-appointed Medical Officer of Health for the combined Cockermouth Rural, Cockermouth Urban, Keswick Urban, and Workington Port Sanitary Districts; but the Workington Urban Sanitary Authority have withdrawn, and intend to appoint separately.

THE next examination of Surgeons in the Royal Navy who are eligible and wish to qualify for the rank of Staff Surgeon, 2nd Class, will be held at the Royal Naval Hospitals at Haslar and Plymouth, on Tuesday, July 21 next.

AT a public meeting held last week at the Town Hall, Droitwich, convened by Dr. Roden, the mayor, and at which he presided, it was unanimously resolved to establish a self-supporting dispensary.

THE Cambridge Urban Sanitary Authority have deferred the appointment of a medical officer of health, which it was recently proposed to make, at a salary of £250 per annum.

CONSIDERABLE difficulty is found by the Clerkenwell Vestry in obtaining a suitable site on which to erect a public mortuary. Landowners evince great prejudice against such an erection on their property.

THE third exhibition of sanitary, educational, and domestic appliances, in connexion with the Social Science Congress, will take place in the Drill Hall, Burnbank, Glasgow, from September 30 till October 10 next.

SCARLATINA has broken out at Sowerby Bridge. Four deaths have already occurred from the disease.

THE Medical Officers of the Hackney Union have, through Dr. Lush, presented to the House of Commons a petition for remuneration for additional services imposed upon them under the Public Health Act, 1873.

AN action has been brought against a French newspaper, the *Nouvelle Chronique*, published in Jersey, for an alleged libel on Dr. Van de Vyrer, who advertised his ability to supply medical and other diplomas, which the paper in question alleged to be a fraud. The plaintiff claims £500 damages.

IT appears by a Parliamentary return issued on Saturday that there are 31,799 pauper lunatics in public and private asylums in England, 7140 in Ireland, and 4428 in Scotland. In workhouses and elsewhere there are 21,413 in England, 3125 in Ireland, and 2077 in Scotland—a total of 69,982.

SMALL-POX is alarmingly prevalent in the neighbourhood of Consett. One hundred persons have been attacked with the disease in the colliery village of Cornsay, containing a population of 2000 persons. What is the state of vaccination in that locality?

LINIMENT IN FISSURE OF THE ANUS.—Glycerine sixteen parts, tannin one part. A tent is to be soaked in this solution and introduced into the rectum night and morning. The bowels are to be kept open.—*Union Méd.*, May 26.

ROYAL COLLEGE OF PHYSICIANS.—The President has issued invitations for a banquet to take place in the College on Midsummer-day, after the delivery of the Harveian Oration.

ROYAL MEDICAL AND CHIRURGICAL SOCIETY.—In consequence of preparations for the *conversazione* to be held on Tuesday, June 9, the library will be closed on Monday and Tuesday.

BRITISH MEDICAL ASSOCIATION.—The forty-second annual meeting of this Association will be held at Norwich on Tuesday, Wednesday, Thursday, and Friday, August 11, 12, 13, and 14. The following are the officers of the Association:—*President:* Sir William Fergusson, Bart., F.R.S., F.R.C.S., Surgeon to King's College Hospital, London. *President-Elect:* E. Copeman, M.D., Senior Physician to the Norfolk and Norwich Hospital. *President of the Council:* George Southam, Esq., F.R.C.S., Surgeon to the Manchester Royal Infirmary. *Treasurer:* R. W. Falconer, M.D., D.C.L., Consulting Physician to the Royal United Hospital, Bath. *Editor of the British Medical Journal:* Ernest Hart, Esq., London. *General Secretary:* Francis Fowke, Esq., 37, Great Queen-street, London, W.C. The addresses will be read by Dr. Russell Reynolds, F.R.S., on Medicine; W. Cadge, Esq., on Surgery; Dr. Matthews Duncan, on Obstetric Medicine. The officers of the various sections are:—*Medicine:* President, Dr. Eade (Norwich); Vice-Presidents, Dr. Sydney Ringer (London), Dr. Durrant (Ipswich); Secretaries, Dr. Bradbury (Cambridge), Dr. Lowe (Lynn). *Surgery:* President, Sir James Paget, Bart., F.R.S. (London); Vice-Presidents, T. W. Crosse, Esq. (Norwich), Dr. Macnamara (Dublin); Secretaries, F. Worthington, Esq. (Lowestoft), Reginald Harrison, Esq. (Liverpool). *Obstetric Medicine:* President, Dr. Churchill (Dublin); Vice-Presidents, Dr. W. S. Playfair (London), Dr. Steele (Liverpool); Secretaries, Dr. Edis (London), F. Image, Esq. (Bury St. Edmunds). *Public Medicine:* President, W. H. Michael, Esq. (London); Vice-Presidents, Dr. Bateman (Norwich), Dr. Ransome (Bowden); Secretaries, Dr. Bond (Gloucester), Dr. Leech (Manchester). The Local Secretaries are—Dr. J. B. Pitt, H. S. Robinson, Esq., Dr. Beverley (Norwich). The programme of public business is as follows:—Tuesday, August 11—10.30 a.m., cathedral service; 1 p.m., meeting of Committee of Council; 3 p.m., meeting of the Council, 1872-73; 8 p.m., general meeting, President's address, annual report of Council, and other business. Wednesday, August 12—9.30 a.m., meeting of Council, 1873-74; 11.30 a.m., second general meeting; 11.30 a.m., address in Medicine; 2 to 5 p.m., sectional meetings; 9 a.m., *soirée* at St. Andrew's Hall. Thursday, August 13—9 a.m., meeting of the Committee of Council; 10 a.m., third general meeting, reports of Committees; 11 a.m., address in Surgery; 2 to 5 p.m., sectional meetings; 6.30 p.m., public dinner. Friday, August 14—10 a.m., address in Obstetric Medicine; 11 a.m., sectional meetings; 1.30 p.m., concluding general meeting. *Excursions:* The Excursion Committee will make arrangements for the convenience of members and their friends wishing to visit the factories and places of interest in the city and neighbourhood during the week. On Saturday there will be excursions to geological and botanical stations and places

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of antiquarian and general interest in Norfolk and Suffolk. The honorary secretary will endeavour to arrange for gentlemen well acquainted with the locality to accompany the parties on Friday and Saturday. Any information will be given by Mr. W. B. Francis, St. Clement's, Norwich, Honorary Secretary to the Excursion Committee. Members of the Association will receive cards for the above proceedings, evening meetings, etc., at the Reception Room, Assembly Rooms, Norwich. *Annual Museum:* The seventh annual museum of the British Medical Association will be held at the Assembly Rooms, and will be open daily from 10 a.m. till 6 p.m., on August 11, 12, 13, and 14, for the exhibition of the following objects:—1. The latest inventions in medical and surgical instruments and appliances of all descriptions. 2. New chemicals and apparatus; new drugs and their preparations; and new articles of diet for invalids. 3. General pathological specimens; with photographic models, drawings, etc., illustrating disease. 4. Urinary calculi; with drawings or diagrams of urinary disease, and of operations on the urinary organs. (Also instruments with diagrams, etc., illustrating the history of the operation of lithotomy from the earliest periods up to the present day.) 5. Drawings, diagrams, or models illustrating the ventilation of hospitals and private dwellings. 6. (Microscopic pathological specimens). The following is a list of the Museum Committee, to any member of which communications, etc., may be addressed:—Mr. William Cadge (chairman), 24, St. Giles-street, Norwich; Mr. Francis Sutton, London-street, Norwich; Mr. Jonathan Hutchinson, 4, Finsbury-circus, London, E.C.; Mr. Joseph Allen, Tombland, Norwich; Mr. Francis Fowke, 37, Great Queen-street, London, W.C.; Mr. Charles Williams, 9, Prince of Wales-road, Norwich; Mr. J. R. Baumgartner, Norfolk and Norwich Hospital; Mr. Charles Firth (hon. sec.), 65, St. Giles-street, Norwich. *Notice to Exhibitors.*—Application to be made as soon as possible, at the same time giving a list of objects, and mentioning the space required. Each object to be accompanied by a written or printed description, or reference, for insertion in the catalogue, and it is important that these descriptions should be sent as early as possible—viz., not later than July 28. All parcels to be delivered on or before August 4, and to be removed within three days after August 14. They must be addressed "British Medical Association, care of C. Firth, Esq., Assembly Rooms, Norwich." All expenses of carriage and all risk to be borne by the exhibitors. A card bearing the name and address of the exhibitor to be enclosed in each package, ready to be fixed on the outside. N.B.—Specimens of disease and calculi which have been exhibited at former meetings cannot be received on this occasion. All communications to be addressed to Charles Firth, Esq., St. Giles-street, Norwich, the Secretary for the Museum Department.

COMPOSITION AND QUALITY OF THE METROPOLITAN WATERS IN MAY, 1874.—The following are the returns (by Dr. Letheby) of the Society of Medical Officers of Health:—

Names of Water Companies.	Total Solid Matter per Gallon.	Oxygen required by Organic Matter, &c.	Nitrogen.		Hardness.	
			As Nitrates &c.	As Ammonia.	Before Boiling.	After Boiling.
Thames Water Companies.	Grains.	Grains.	Grains.	Grains.	Degs.	Degs.
Grand Junction .	17·11	0·051	0·097	0·002	14·3	3·3
West Middlesex .	16·97	0·049	0·131	0·000	14·0	3·3
Southwark & Vauxhall . . .	17·07	0·053	0·115	0·002	14·1	3·4
Chelsea . . .	17·17	0·052	0·117	0·002	14·4	3·4
Lambeth . . .	16·89	0·054	0·132	0·001	14·0	3·4
Other Companies.						
Kent	27·13	0·004	0·244	0·000	20·8	5·6
New River . .	16·33	0·027	0·132	0·000	13·8	3·3
East London . .	17·23	0·048	0·137	0·002	14·4	3·3

Note.—The amount of oxygen required to oxidise the organic matter, nitrites, etc., is determined by a standard solution of permanganate of potash acting for three hours; and in the case of the metropolitan waters the quantity of organic matter is about eight times the amount of oxygen required by it.

The water was found to be clear and nearly colourless in all cases but the following, when it was more or less turbid—namely, in those of the Lambeth, the Grand Junction, the Southwark and Vauxhall, and the Chelsea Companies.

The average quantity of water supplied daily to the metropolis during the preceding month was, according to the returns of the Water Companies to the Society of Medical Officers of Health, 111,701,473 gallons; and the number of houses supplied was 509,569. This is at the rate of 33·3 gallons per head of the population daily. The last official return from Paris stated that the average daily supply per head of the population was 28·5 gallons; but this includes the water used for the public fountains, and for the ornamental waters in the Bois de Vincennes and the Bois de Boulogne.

ROYAL SOUTH LONDON OPHTHALMIC HOSPITAL.—At the last meeting of the Common Council of the City of London, the sum of one hundred guineas was awarded to the above institution.

ROYAL MEDICAL BENEVOLENT COLLEGE.—At the annual election of pensioners and foundation scholars on the 28th ult., of the pensioners, the following were successful, viz.:—E. A. C. Mathias, 8308 votes; Julia Barnes, 7452; E. A. Howell, 6671; Eliza Meredith, 5443; E. F. Phillips, 5176; Sarah Jenkins, 4843; George King, 4520. The following were the successful scholars, viz.:—W. F. Morris, 6921; C. F. Bowe, 6787; W. Lambden, 6692; J. H. Godby, 6494; H. C. Webb, 5885; S. W. Allinson, 5798; F. Savery, 5748; and A. P. Hoskins, 5504 votes.

NOTES, QUERIES, AND REPLIES.

He that questioneth much shall learn much.—*Bacon.*

H. M.—The embalmed body of Martin van Butchell can be seen in the Museum of the College of Surgeons.

J. C., St. Bartholomew's.—Sir George Burrows, President of the Royal College of Physicians, married a daughter of the celebrated John Abernethy. Mr. Willett married a daughter of Sir George. The widow of Mr. Wormald presented the instruments to the College of Surgeons.

An Old Subscriber.—You will find a translation of Lugol's paper on iodine in the *Medical Times*, vol. xiv., p. 445.

A Fellow.—The rule is to appoint a chairman alternately from the provinces and the metropolis. The festival takes place on the day of election—viz., the first Thursday in the ensuing month. On the present occasion Mr. Erasmus Wilson, F.R.S., will be chairman. Write either to Mr. Jackson or Mr. Allingham respecting the stewardship.

F.R.C.S. Eng., Hindmarsh, Adelaide, S. Australia.—Having been admitted a Member of the College in 1830, you have only to obtain the signatures of two Fellows and the Governor of your district, recommending you for the distinction, and on payment of the usual fee you will no doubt be elected a Fellow.

Antiquary.—The first Arabian systematic works on chemistry are said to have been composed by Geber in the reigns of the Caliphs Almainon and Almanzor. The preparation of medicine appears to have been the chief object in this study.

Plucked.—1. Yes. 2. The lines are—

> "Ah! now comes that bitter word of But,
> Which makes all nothing that was said before!
> That smoothes and wounds, that strokes and dashes more
> Than flat denial or a plain disgrace."—*Daniel.*

Timely Warning.—Dr. William Hunter used to relate a story of a lady who, in an advanced age and declining health, went, by the advice of her physician, to take lodgings in Islington. She agreed for a suite of rooms, and, coming downstairs, observed that the banisters were much out of repair. "These," she said, "must be mended before she could think of coming to live there." "Madam," replied the landlady, "that will answer no purpose, as the undertaker's men, in bringing down the coffins, are continually breaking the banisters." The old lady was so shocked at this funereal intelligence that she immediately declined occupying the apartments.—*Thornberry's "Old and New London" for June.*

An Old Provincial Teacher.—We cannot obtain the information you require; in fact, it would not be correct to press for it, as the metropolitan teachers, equally with yourself, are much interested in the disastrous rejections at the recent primary and pass examinations for the diploma of Membership of the College of Surgeons. The annual return of rejections at all the schools, both in the metropolis and provinces, will be made in July, and, from what we learn, a very shabby *exposé* will be made of *all*. Having been present, by the courtesy of the President, at several of the examinations, we can assure you that the standard of the test for Membership has *not* been raised. With regard to the primary examination for the Fellowship, just concluded, the following analysis may be interesting to you:—On the first day, twenty-two Members of the College were examined out of twenty-four, the date of whose diplomas ranged from March, 1853, to January, 1874; of these ten were rejected, and two who had passed the primary examination for Membership. On the second day, out of the twenty-four examined, all of whom had passed the primary Membership, *seventeen were rejected*. On the third and last day, out of twenty-one examined, sixteen were rejected, three of whom had not passed any professional examination at the College. Your other inquiries shall be answered next week.

THE MENTAL CONSTITUTION OF MAN.

TO THE EDITOR OF THE MEDICAL TIMES AND GAZETTE.

SIR,—Can you or any of your readers name any books evidencing *design* in the *mental* constitution of man! and so oblige yours, &c.,

AN OLD SUBSCRIBER.

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Hygiene.—Apply to any respectable surgeon. If you are not satisfied with his advice ask him to name some consultant, which in your case we could not do. No doubt the malady is curable.

A Student.—The following is the explanation Forster gives of the old woman's story that when an owl hoots on the top of a house it is to foretell death:—"The fact seems to be this—The owl, as Virgil justly observes, is more noisy at the change of weather, and as it often happens that patients with lingering diseases die at the change of weather, so the bird seems by a mistaken association of ideas to forebode the calamity."

St. George's.—Professor Holmes will commence his course of lectures on Monday next "On the Surgical Treatment of Aneurism."

Orthopædic.—We have it on the best authority that Dr. Little, the founder of the first orthopædic institution in London, carefully avoided the squabbles alluded to in a late biography, and to escape them resigned his office. In fact, the chief of the differences referred to occurred after his withdrawal from the institution.

COMMUNICATIONS have been received from—

An Old Subscriber; Mr. J. H. M. Gallwey, Newcastle-on-Tyne; Dr. W. C. Grigg, London; Rev. J. Bird, London; Mr. A. Cooper, London; Dr. G. Ellis, Dublin; Mr. H. Haines, Stourport; Mr. C. Linton, Oundle; Mr. G. Murray, Edinburgh; The Registrar of the Apothecaries' Society; Dr. Letheby, London; Mr. C. W. Spencer, London; Hygiene; Mr. George Brown, London; The Registrar-General, Edinburgh; Dr. Strange, Worcester; Dr. Potter, London; Dr. Russell, Birmingham; Dr. Eustace Smith, London; Dr. J. Hughlings-Jackson, London; Dr. Sparks, London; Dr. G. V. Poore, London; Mr. W. F. Tervan, London; Mr. J. Chatto, London; Mr. Collins, Bristol; Dr. Thorowgood, London.

BOOKS AND PAMPHLETS RECEIVED—

Parrish's Treatise on Pharmacy, edited by Wiegand—Quarterly Return of the Births, Deaths, and Marriages registered in the Divisions, Counties, and Districts of Scotland—Die Parasiten der Brustdrüse, von Dr. Haussmann—Untersuchungen über das Gehirn, von Dr. Eduard Hitzig—Report on the Treatment of Leprosy with Gurjun Oil, by J. Dougall, M.D.—Lund's Five Years' Surgical Work in the Manchester Royal Infirmary—Southall's Organic Materia Medica—Annual Report of the Royal Edinburgh Asylum for the Insane—Haydn's Dictionary of Popular Medicine and Hygiene.

PERIODICALS AND NEWSPAPERS RECEIVED—

Lancet—British Medical Journal—Nature—Medical Press and Circular—Leisure Hour—Sunday at Home—Monthly Microscopical Journal—Science Gossip—Midland Temperance Record—Dublin Evening Mail—Transactions of the Odontological Society, vol. vi., No. 7—Liverpool Daily Courier—Pharmaceutical Journal—Food, Water, and Air—The Obstetrical Journal of Great Britain and Ireland—Irish Hospital Gazette—Allgemeine Wiener Medizinische Zeitung—Centralblatt für Chirurgie—La Gazette Médicale—Gazette Hebdomadaire—La France Médicale—La Tribune Médicale—Le Progrès Médical—Bulletin Général de Thérapeutique—Bulletin de l'Académie de Médecine—Berliner Klinische Wochenschrift—Edinburgh Medical Journal—Practitioner—The Micrographic Dictionary, parts 13 and 14—L'Archives Générales de Médecine.

APPOINTMENTS FOR THE WEEK.

June 6. Saturday (this day).

Operations at St. Bartholomew's, 1½ p.m.; King's College, 2 p.m.; Charing-cross, 2 p.m.; Royal Free, 9 a.m. and 2 p.m.; Hospital for Women, 9½ a.m.; Royal London Ophthalmic, 11 a.m.; Royal Westminster Ophthalmic, 1½ p.m.; St. Thomas's, 9½ a.m.

Royal Institution, 3 p.m. Mr. R. A. Proctor, "On the Planetary System."

8. Monday.

Operations at the Metropolitan Free, 2 p.m.; St. Mark's Hospital for Diseases of the Rectum, 2 p.m.; St. Peter's Hospital for Stone, 3 p.m.; Royal London Ophthalmic, 11 a.m.; Royal Westminster Ophthalmic, 1½ p.m.

Royal College of Surgeons of England, 4 p.m. Professor Holmes's Lecture "On the Surgical Treatment of Aneurism in its various forms."

9. Tuesday.

Operations at Guy's, 1½ p.m.; Westminster, 2 p.m.; National Orthopædic, Great Portland-street, 2 p.m.; Royal London Ophthalmic, 11 a.m.; Royal Westminster Ophthalmic, 1½ p.m.; West London, 3 p.m.

Anthropological Institute, 8 p.m. Meeting.

10. Wednesday.

Operations at University College, 2 p.m.; St. Mary's, 1½ p.m.; Middlesex, 1 p.m.; London, 2 p.m.; St. Bartholomew's, 1½ p.m.; Great Northern, 2 p.m.; St. Thomas's, 1½ p.m.; Samaritan, 2½ p.m.; King's College (by Mr. Wood), 2 p.m.; Royal London Ophthalmic, 11 a.m.; Royal Westminster Ophthalmic, 1½ p.m.

Epidemiological Society, 8 p.m. M. Leon Colins, "On the Conditions of Propagation of Small-pox and Cholera."

Royal College of Surgeons of England, 4 p.m. Professor Holmes's Lecture "On the Surgical Treatment of Aneurism in its various forms."

11. Thursday.

Operations at St. George's, 1 p.m.; Central London Ophthalmic, 1 p.m.; Royal Orthopædic, 2 p.m.; University College, 2 p.m.; Royal London Ophthalmic, 11 a.m.; Royal Westminster Ophthalmic, 1½ p.m.; Hospital for Diseases of the Throat, 2 p.m.

12. Friday.

Operations at Central London Ophthalmic, 2 p.m.; Royal London Ophthalmic, 11 a.m.; South London Ophthalmic, 2 p.m.; Royal Westminster Ophthalmic, 1½ p.m.; St. George's (ophthalmic operations), 1½ p.m.

Royal College of Surgeons of England, 4 p.m. Professor Holmes's Lecture "On the Surgical Treatment of Aneurism in its various forms."

VITAL STATISTICS OF LONDON.

Week ending Saturday, May 30.

BIRTHS.

Births of Boys, 1040; Girls, 1028; Total, 2068.
Average of 10 corresponding years 1864-73, 2023·5.

DEATHS.

	Males.	Females.	Total.
Deaths during the week	703	682	1385
Average of the ten years 1864-73	663·6	607·9	1271·5
Average corrected to increased population	...	...	1399
Deaths of people aged 80 and upwards	...	...	46

DEATHS IN SUB-DISTRICTS FROM EPIDEMICS.

	Population, 1871.	Small-pox.	Measles.	Scarlet Fever.	Diphtheria.	Whooping-cough.	Typhus.	Enteric (or Typhoid) Fever.	Simple continued Fever.	Diarrhœa.
West	561359	...	6	2	...	5	...	...	1	7
North	751729	...	10	1	1	10	2	4	2	1
Central ...	334369	...	8	2	...	...	1	2	...	...
East	639111	...	8	14	1	5	...	2	2	7
South	967692	...	10	7	1	21	2	8	4	6
Total	3254260	...	37	26	3	41	5	16	9	21

METEOROLOGY.

From Observations at the Greenwich Observatory.

Mean height of barometer	29·725 in.
Mean temperature	59·5°
Highest point of thermometer	76·1°
Lowest point of thermometer	44·5°
Mean dew-point temperature	52·4°
General direction of wind	W.S.W.
Whole amount of rain in the week	0·27 in.

BIRTHS and DEATHS Registered and METEOROLOGY during the Week ending Saturday, May 30, 1874, in the following large Towns:—

Boroughs, etc. (Municipal boundaries for all except London.)	Estimated Population to middle of the year 1874.*	Persons to an Acre. (1874.)	Births Registered during the week ending May 30.	Deaths Registered during the week ending May 30.	Temperature of Air (Fahr.) Highest during the Week.	Lowest during the Week.	Weekly Mean of Mean Daily Values.	Temp. of Air (Cent.) Weekly Mean of Mean Daily Values.	Rain Fall. In Inches.	In Centimetres.
London	3400701	45·1	2068	1385	76·1	44·5	59·6	15·28	0·27	0·69
Portsmouth ...	120436	26·8	66	44	...	...	...	...	0·00	0·00
Norwich	82257	11·0	33	35	70·8	43·0	56·3	13·50	0·37	0·94
Bristol	192889	43·3	101	90	69·7	48·8	57·2	14·00	0·01	0·03
Wolverhampton ...	70896	20·9	58	27	69·5	45·4	57·2	14·00	0·11	0·28
Birmingham ...	360892	43·0	292	158	67·6	49·0	56·9	13·83	1·20	3·05
Leicester	106202	33·2	116	29	71·2	49·2	58·6	14·78	0·33	2·06
Nottingham ...	90694	45·5	54	48	69·5	48·3	56·8	13·78	0·45	1·14
Liverpool	510640	98·0	398	239	63·1	49·7	54·1	12·28	0·47	1·19
Manchester ...	355329	82·8	243	198	70·3	51·0	56·5	13·61	0·66	1·68
Salford	139068	25·7	97	79	65·0	47·2	53·5	11·95	0·89	2·25
Oldham	86281	18·5	59	59	...	...	...	...	...	...
Bradford	163056	22·6	139	86	63·0	47·7	54·1	12·28	0·32	0·81
Leeds	278798	12·9	+242	+17	66·0	47·0	54·0	12·22	0·51	1·32
Sheffield	261029	13·3	191	146	67·0	47·8	55·3	12·94	0·10	0·25
Hull	150906	36·0	104	74	69·0	49·0	54·1	12·28	0·23	0·59
Sunderland ...	104378	31·6	64	49	...	...	...	...	...	...
Newcastle-on-Tyne	135437	25·2	105	74	...	...	...	...	...	...
Edinburgh	211691	47·8	123	102	62·4	43·3	52·1	11·17	0·45	1·14
Glasgow	508109	100·4	381	326	59·2	41·1	50·7	10·39	1·61	4·19
Dublin	314666	31·3	184	154	66·5	48·8	55·5	13·05	0·73	1·90
Total of 21 Towns in United Kingdm	7618655	86·6	5116	3547	76·1	40·0	55·4	13·00	0·51	1·45

At the Royal Observatory, Greenwich, the mean reading of the barometer last week was 29·73 in. The lowest was 29·32 in. at the beginning of the week, and the highest 29·86 in. on Wednesday morning and on Thursday evening.

* The figures for the English and Scottish towns are the numbers enumerated in April, 1871, raised to the middle of 1874 by the addition of three years and a quarter's increase, calculated on the rate which prevailed between 1861 and 1871. The population of Dublin is taken as stationary at the number enumerated in April, 1871.

† The figures for Leeds include an average for one sub-district from which the usual return has not come to hand.

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ORIGINAL LECTURES.

A CLINICAL LECTURE ON SCIATICA AND ITS TREATMENT.

DELIVERED AT THE WESTMINSTER HOSPITAL.

By FRANCIS E. ANSTIE, M.D., F.R.C.P.,
Physician to the Westminster Hospital, and Lecturer on Medicine in Westminster Hospital School.

(*Concluded from page* 582.)

In considering whether rheumatism has any better title than gout to be considered the cause, or a frequent cause, of sciatica, it is first necessary that we should have some clear ideas as to what we mean by "rheumatism."

By most Continental writers, especially by the Germans, anything in the shape of pain which is immediately provoked by *cold* is called rheumatism; and in this sense it is undoubtedly true that a large number of cases of sciatica are rheumatic in origin. In this country the word rheumatism is not usually employed in so lax a fashion, although there has no doubt been much vagueness and a great want of agreement as to any precise definition. For my own part, I hope that future changes may be in the direction of making the separation between rheumatism and various chronic painful affections—especially neuralgia—more distinct; for it is plain to me, from my own experience, that the opposite course leads to endless confusion. I shall therefore try to get you to realise as distinctly as possible what are the maladies to which alone we ought to apply the name of rheumatism. (1.) I need not tell you, in the first place, that there is a febrile affection, with acute inflammation of the joints, commonly called "rheumatic fever," and which is characteristic and unmistakable. (2.) There is a chronic form of the same malady, frequently but not always occurring as a sequel to repeated acute attacks, and usually affecting only a limited number of joints. Accompanying both these forms of disease, but especially the former, there is a well-known tendency to inflammatory affections of internal organs, but especially of the pericardium and the endocardium. But, besides this, there is a characteristic hue of the skin, a peculiar pallor conjoined with a distinctly yellow tinge on the palmar surfaces of the fingers and various other places, and in acute or sub-acute attacks a tendency to viscid perspiration, which gives the skin an oily look, and causes it to exhale a sour smell. High acidity of the urine is another well-known characteristic. In the above-described affections we recognise a well-marked type of disease which must continue to receive the distinctive name of rheumatism; but the moment we pass outside this line we find ourselves involved in confusion when we apply the term more widely. It is, for instance, a gross abuse of language to apply the term rheumatism to the terrible "arthritis deformans"—that malady which, without any febrile commencement, attacks a vast number of joints, and, partly by changes of the cartilages and ligaments, partly by the deposit of large quantities of bony matter around the joints, gives rise to the most painful and crippling deformities. Every circumstance of the pathology and etiology of this disease distinguishes it utterly from the true rheumatisms. It is not less inexpedient, in my opinion, to apply the term "muscular rheumatism" to those painful affections of the muscles to which Dr. Inman very properly gave the distinctive name of myalgia; for these affections (under the form of lumbago, pleurodynia, etc.) quite as commonly attack persons who are free from, as those who are subject to, the tendency to rheumatism in joints. But the confusion becomes worse confounded if we allow ourselves to speak of neuralgia, in its ordinary forms, as a local evidence of the rheumatic diathesis; for in a very large majority of the cases of neuralgia we find not the smallest evidence that the patients have any recognisable features of the rheumatic diathesis. A few cases of really rheumatic neuralgia do undoubtedly exist, and I wish to give you clear ideas of the nature of this affection, which, however, is so rare that you may possibly never meet with it in the whole course of your practice. It occasionally happens—and perhaps more frequently in sciatica than in neuralgia of any other nerve—that the origin of the mischief has really consisted in rheumatic inflammation of the sheath of the nerve. It may convince you, however, that this kind of sciatica must be comparatively very rare, if I tell you that in the course of sixteen years' hospital and private practice, in which I have seen over ninety cases of sciatica, not more than four presented the truly rheumatic character. These all occurred in persons who had shown other evidences of genuine rheumatism; in all of them there was a palpable thickening of the nerve-trunk or of one of the principal branches. The first case of the sort that I saw was one in which the peroneal nerve was so remarkably enlarged, in a thin patient, that my attention was necessarily drawn to it. That this was the original seat of the mischief seemed evident from the fact that the pain was limited to the sensory branches of the peroneal nerve, the two points of greatest agony being situated at the division into two branches of of the musculo-cutaneous (lower third of the leg, outer side), and on the dorsum of the foot, just at the lower border of the annular ligament; and that if one pressed a finger on the swollen nerve, a dart of acute pain immediately shot into the situations just named. Such cases might perhaps be confounded with examples of those secondary changes which I have often described to you as occurring, in old cases of neuralgia, in the tissues around the distribution of the painful nerves; but the latter conditions are not attended with definite enlargement of a considerable nerve-trunk, and, above all, they develope but slowly, whereas rheumatic sciatica occurs as rapidly as does rheumatic inflammation of a joint. You perceive, then, that except in a very small and well-defined class of cases, there is no pretence for speaking of sciatica as a rheumatic disease.

One constitutional disease, however, not only is capable of producing sciatica, but probably does so with unsuspected frequency—viz., constitutional syphilis. It had always puzzled me to read of the marvellous successes which some observers had obtained with iodide of potassium in sciatica (seeing that in the ordinary forms of the disease I never found it useful), until I came across cases in my own practice where syphilis was evidently the cause, and in which I obtained immediate success by the use of that drug. I would advise you, in every case of sciatica that does not quickly yield to the kind of treatment which I shall presently recommend, to inquire very closely into the history of the patient as regards the possibility of his having had syphilis: and to show you the necessity of not being too readily diverted from the quest by apparent improbabilities, I may mention that one of the most marked successes I have obtained was in the person of a gentleman whose peculiar position seemed to put syphilis entirely out of the question. Here the primary syphilis dated as many as thirty years back, but a clear history of subsequent, though not severe, constitutional symptoms was obtained, and the treatment by iodide of potassium in large doses at once effected a brilliant success.

In the vast majority of cases of sciatica, however, you will find no trustworthy evidence of any diathetic condition resembling either gout, rheumatism, or syphilis; and you will be driven to the conclusion that the disease is a neuralgia pure and simple. Now let us ask ourselves what are the principles which should govern our prognosis and treatment of neuralgia in general and of sciatica in particular.

In regard to neuralgia in general, we are in the unfortunate position of lacking any positive information as to the precise seat and nature of the pathological change which is at the root of the malady. I say "positive" information, because post-mortem examinations of persons who, at the time of death, were suffering neuralgia, have been so rare that practically, from this side of the matter, we know but little. But we know enough to be quite certani that the apparent site of the pain need not be, and indeed scarcely ever is, the seat of the mischief which causes it. It is demonstrable, from accumulated clinical facts, that pathological causes which irritate the nerve high up in its trunk produce pain at the peripheric distribution; and it is also known that sensations which are excited by irritation of the central origin or nucleus of a sensory nerve, are, by a regular physiological law, referred to the periphery. As regards sciatica, we happen to possess precise knowledge of the immediately *exciting* cause in a considerable number of cases; for there is a rather large number of recorded instances in which irritative pressure of a loaded bowel, a gravid uterus, or a tumour, upon the nerve within the pelvis, has set up pains, distributed in the peripheral manner already described, and disappearing instantaneously on the removal of the cause of irritation to the trunk. But in regard to all

neuralgias, a strong argument for the belief that the cause operates centrally rather than peripherally, arises from the fact that the pain simultaneously affects individual twigs of nerve which are widely separated from each other. In a facial tic, *e.g.*, it is not at all uncommon to find that the pain centres in two points—the supra-orbital (above the notch of that name) and the auriculo-temporal (in front of the ear); the former representing the frontal branch of the first or ophthalmic division of the trigeminus, and the latter representing the auriculo-temporal branch of the third division. Now, it might be said that the operation of some peripheral cause, such as cold, had excited pain in both these points of nerve; but clinical experience entirely forbids us to explain the matter thus, because the independent affection of widely separated twigs of the same nerve is quite as frequently observed where it is perfectly obvious that no peripheral irritation has been at work. If, then, the pain in two widely distant twigs of the same nerve were not caused by irritation acting at the apparent peripheral site of the pain, we may next inquire whether the mischief is in the trunk of the nerve; and in a considerable number of cases of neuralgia we shall find that a portion, at least, of the mischief was caused in this way. Irritative pressure upon the trunk of a nerve has frequently, at any rate, so much share in the production of a (peripherally-felt) neuralgia, that the latter disappears immediately on its removal; thus a syphilitic periostitis may cause irritative pressure on a nerve within a bony canal, and anti-syphilitic treatment may immediately remove the pain. But we are bound to ask ourselves whether the irritation of the nerve-trunk is the whole matter, and for this reason—that various nerves, and especially the sciatic, from their anatomical position, are extremely frequently pressed upon by viscera, or by tumours of various kinds, and that if this cause were alone sufficient to produce neuralgia, that disease ought to be a hundred times more frequent than it is. It is not enough to prove, as we readily can, that the immediate cause of some cases of sciatica was the pressure of a loaded bowel, for, considering the very great frequency with which people carelessly allow their bowels to remain chronically constipated, sciatica ought to be one of the commonest diseases in existence, if the mere pressure were in itself enough to set up the disease. But sciatica is far from being a common malady, and we are therefore compelled to suppose that a predisposition to neuralgia existed in the nerve.

Now, in favour of the idea that some *predisposition* is usually, if not always, present in neuralgic patients, and that peripheral irritation only serves as the final factor which elicits it, there is a very large mass of striking facts. Of these the most important are those of heredity: nothing is more certain than that neuralgic patients nearly always descend from families in whom the disposition to nervous diseases of various kinds is markedly developed. For detailed proof of this I must refer you to my work on "Neuralgia and its Counterfeits" (Macmillan), merely observing that since the publication of that book I have received a very large amount of corroborative evidence of the position now laid down. It has, indeed, been very confidently ascribed by a recent writer,(a) that, whatever may be the case with neuralgias in general, no proof can be made out of the hereditary character of sciatica; to which statement I can only reply that the very considerable number of fully noted cases of sciatica which I have collected from my own observation, entitles me to say that sciatica holds a similar position to that of facial or other neuralgias as regards the question of direct and indirect inheritance. It is an offshoot of that neurotic constitution, the inheritance and the alternate transformations of which, in successive generations and different individuals, is so marked a feature in the history of many families. I do not wish now to occupy your attention too long with theoretical considerations, but in the work to which I have referred you you will find what I venture to believe is very strong evidence in favour of the opinion that the mysterious neurotic inheritance consists of an inherited tendency towards imperfect building of the central nervous system—that last and highest expression of the increasing tendency to differentiation of organs which corresponds with the upward scale of development in the animal series. I believe that sciatica follows the same rule which pertains to other neuralgias, and that underlying the fact of the external provocation which may have immediately induced the attack, there was a predisposition, the origin of which is to be traced to a feeble and mobile constitution of the centres in the cord from which the sciatic nerve takes its rise.

We will assume, then, that sciatica, in nearly if not quite all cases, requires a predisposition of that kind which descends in families that have marked tendencies to nervous disease. What, if any, are the particular circumstances which specially distinguish sciatica as regards the tendency to its immediate provocation, and the circumstances which are likely to make it a transitory or a lingering affection?

In the first place, the sciatic nerve is, beyond all others, obnoxious to the evil influence of muscular movement. Its large size, and its position among the muscles of locomotion, expose it to continual drags and pulls, and if once neuralgic pain has been set up in it the slightest amount of walking is sure to aggravate it and keep it up. And then, unfortunately, the exposed position of a large part of the nerve, from the sciatic notch downwards, makes the sitting posture equally bad with locomotion. In fact, there is no position, except lying prone upon a couch, which does not more or less worry the nerve. It is probably to their less energetic habits of locomotion that women owe their remarkable immunity, as compared with men, from sciatica. The most thoroughly obstinate and intractable case that I have seen in a woman was one in which the patient would not, for a long time after the commencement of her illness, take the physical rest which was imperatively required, but continued to limp about for hours daily. By the time this had been going on for some three months the case was thoroughly hopeless as regarded cure.

No disease is more markedly influenced by age than sciatica. It very seldom occurs before the age of twenty, and the zenith of its frequency is between the ages of forty and fifty. There are, indeed, two quite different types of sciatica, putting aside the gouty, the rheumatic, and the syphilitic varieties (which have no constant relation to age). The sciatica of youth may be a severe complaint, and if injudiciously treated may become intractable and even wholly incurable; but, as a rule, it distinctly tends to spontaneous termination, except in so far as it is kept up by some vicious habit of body or mind. The effect of imprudent efforts to "walk it off" may convert what would have been a very trivial and temporary attack into a very obstinate one. Sexual excesses, especially masturbation, have an unquestionable tendency to provoke and to keep up sciatica in comparatively young persons, and alcoholic intemperance is a possible influence in the same direction. But it is essentially the neuralgias of later life—those which come on from the age of forty to fifty or later—which prove intractable and often incurable. The great rule, which holds true of all neuralgias, that the commencement of the process of bodily decay inaugurates a period in which the cure of these maladies becomes increasingly more difficult, applies in full force to the case of sciatica; and more especially is this effect observed where the degeneration of arteries forms a prominent and early feature in the tissue-degradations of the period of vital decline.

Brief and imperfect as this account of the pathology and causation of sciatica has been, it will suffice to indicate at any rate a more rational scheme of treatment than those which are adopted by routine practitioners. If we are to take first the varieties of the disease in which there is the most decided indication for treatment, we shall certainly begin with the syphilitic; and here I wish to repeat the caution already given as to not accepting too readily the idea that syphilis is out of the question. You will be most tempted to make this mistake when your patient is a lady of good character. But remember that she may have been infected by her husband, and that this may have happened (in conception) without the occurrence of any primary sores. Inquire carefully in such cases for any history of eruptions or sore throats, but especially ascertain whether there have been any abortions or still-births. Where the patient confesses that there has been chancre, you must not give up the syphilitic hypothesis simply because a number of years have elapsed with few or no recognisable symptoms of constitutional infection; this is a point which has been copiously illustrated in the valuable researches on syphilitic nervous diseases generally which have been going on during the last twenty years. The line of treatment is quite simple. You administer iodide of potassium in rapidly increasing doses till you reach as much as from sixty to 120 grains of the drug, or even much more, in each twenty-four hours. This very rarely fails to produce a rapid and complete cure; but if it should prove ineffectual you may resort to the bichloride of mercury, sixty to eighty minims of the liquor

(a) Dr. H. Lawson.

($\frac{1}{16}$ to $\frac{1}{4}$ grain) thrice a day. Very often it will be advisable to give cod-liver oil at the same time.

In the few cases of clearly rheumatic origin, also, we get a clear indication for treatment: the use of iodide of potassium with bark will usually be found to remove the inflammatory enlargement of the nerve, and give speedy relief to the pain. The prolonged use of Kreuznach or Woodhall Spa water is desirable, in order to render the cure complete and permanent.

In the cases where we have reason to believe that the conjunction of the gouty with the neurotic temperament is exercising a pernicious influence, the chief practical deduction must be that the patient should very sedulously avoid beer and all saccharine wines, and should be very moderate in his total allowance of food, especially of meat and other distinctively nitrogenous foods. The careful and prolonged use of Vichy or Neuenahr water may do great good.

But, after all, the gouty, rheumatic, or syphilitic sciaticas form but a small proportion of the mass of cases which may be encountered in practice. The important question, in dealing with ordinary sciatica, is—What am I to do with a disease which is essentially a neuralgia, but which is influenced by the special circumstances connected with the anatomical position and the functions which belong to the sciatic nerve?

In dealing with sciatica as a neuralgia pure and simple, we are fortunately provided with means which will give such immediate relief as will greatly solace the patient, and inspire him with that faith in his ultimate recovery which is always so valuable to the sick, and especially to the nervously sick. I have already explained how necessary absolute rest of the part is, and you will commence your treatment by arranging a proper couch on which the patient is to lie all day, and by making him understand that he is not merely never to put his foot to the ground (except for absolutely necessary purposes), but that he should always lie either prone on his face or (for a few minutes' change) on the opposite side to that affected. If he be in pain at the moment of your first visit, I advise you to give him a hypodermic injection of one-sixth of a grain of acetate of morphia on the spot. All this is only preliminary; it gives you time to look about you, and deliberately select your line of treatment.

In dealing with simple neuralgias there are four possible main classes of remedies—(1) constitutional, which include the regulation of diet and the employment of such medicines as are, in fact, supplementary aliments; (2) the removal of obvious sources of possible irritation; (3) the narcotic-stimulant medicines; (4) local applications.

As we are not dealing now with gouty sciatica, what I have to say concerning alimentary treatment is mainly in the direction of insisting on a very nourishing diet, and especially the use of fats, beginning with cream, and going on to cod-liver oil. To this we may add the use of iron or arsenic, or both, in anæmic cases.

Dr. Lawson has correctly pointed out that sciatica is sometimes connected with an acid dyspepsia and a tendency to pyrosis. I believe that these cases are less common than he supposes, and that they are mostly found in those who happen to be the subjects of gout as well as of sciatica. At any rate, wherever such symptoms are found they should at once be met by the administration of effervescing alkalies, with small doses of quinine—say a grain of quinine in four ounces of Vichy or of Apollinaris water three times a day. The quinine is here given simply as a restorer of the digestive tone, not with any idea of producing a specific effect upon the neuralgia.

The only cases of sciatica in which quinine is likely to produce specific effects are those in which malaria is the exciting cause, and these are (in England) so rare that I have for practical purposes disregarded them. It is enough to say, here, that when we do encounter such cases we must treat them with the same full doses of quinine, administered before an expected paroxysm, as we should employ in ague itself.

2. The removal of obvious sources of possible irritation refers chiefly to two things. *Cold* should be guarded against by making the patient wear (night and day) a pair of thick flannel drawers. Intestinal irritation should be guarded against by thoroughly evacuating the intestines; it is best to do this by means of a good stimulant enema (ol. ricini ʒss., ol. terebinth. ʒss., gruel Ojss.) thrown high up.

3. Of the narcotic-stimulant remedies, morphia, hypodermically injected, is much the most frequently useful, though it is scarcely that panacea for the disease which some have represented it to be. When I tell you that it can rarely be judiciously omitted in the early treatment of sciatica, I am very anxious that you should receive that statement in a reasonable way. The supreme utility of hypodermic morphia is due to the certainty with which (in moderate dose) it will cut short the pain without inducing narcotic depression. Pain is a complex and mysterious phenomenon, and among the many interesting facts concerning it is this—that the long continuance of pulsations, so to speak, of more or less rhythmical agony has a peculiar shattering effect upon the nerve, which leaves it *far more liable to pain than before*. Therefore you will do wisely to prevent, at any necessary cost, the patient from ever having more than a few minutes of acute pain at a time. This can usually be accomplished by immediately using the hypodermic syringe when the attack commences; and at this period of the illness you may even give one-sixth or one-quarter of a grain twice in each twenty-four hours, if necessary. But you are on no account to look upon hypodermic morphia as other than a temporary expedient to gain time for the recuperative powers of the system, aided by appropriate tonics, to conquer the morbid tendency.

4. Of local applications for sciatica (or any other neuralgia) some are used with one intention, some with another. (*a.*) There is a class of local remedies the sole action of which is to shield the terminals of the nerve-twigs from irritation by paralysing their sensibility; the result being that the nerve and nerve-centre enjoy comparative repose while the influence endures. Veratrine ointment is one example; aconite liniment another. In using the former, you will do well to employ at first an ointment only half as strong as that of the Pharmacopœia (four grains to one ounce, not eight), or, if your patient has a delicate skin, you will produce inflammation and pustulation instead of simply numbing the nerves. Lin. aconiti, applied with a broad paint-brush, is more convenient and more certain, but very expensive where it has to be applied over a large surface.

(*b.*) Mild stimulation of the nerve is, however, on the whole by far the most satisfactory local method of treatment. This is done in two ways, either by blistering or by the use of the constant current. Blistering must always be used with precaution, and is almost wholly inapplicable to the irritable skins of *aged* patients. It is usually best to commence with the application of a blister, not directly to any of the painful points, but by the side of the spine at the junction of the lumbar and sacral portions. When the epidermis has been well distended with serum, the bladder is to be pricked with needles and drained of fluid without breaking the skin at all. If the malady prove at all obstinate, a series of these "flying" blisters placed successively near to (not actually upon) the foci of greatest pain will prove highly serviceable.

But in no instance of sciatica ought we to allow the pain to continue very long before putting in action a remedy which has approved itself in the hands of some of the best observers in Europe, of the highest value for sciatica,—I mean the constant battery current, a remedy so powerful (particularly in this form of neuralgia) that, but for the expense and trouble attending its use, it should be employed as the sole treatment in three-fourths of the cases of sciatica. It is absolutely necessary to have a good instrument, such as Weiss's or Stöhrer's constant-current machines. From twenty-five to thirty-five cells will commonly be required, and the best method of application, on the whole, is the following:—The negative pole (the poles are broad moist sponges) is applied as nearly as possible opposite the roots of the nerves which form the sciatic, and the positive pole is applied in succession to the several foci of pain. The poles should be kept continuously applied for about three minutes at each of these situations, and this should be done either once or twice daily.

The prognosis of sciatica depends mainly upon the age of the patient, in the true physiological sense, and on the length of time during which the malady has already lasted. Eulenburg speaks of it as among the most curable of neuralgias, and so it doubtless is—in favourable circumstances and with the adoption of all proper remedies. But it may be rendered utterly intractable, either by the failing nutrition of the organism in the stage of bodily decline, or by the carelessness of the patient, or of the doctor, in not strangling the disease at an earlier period in younger subjects. No disease with which I am acquainted offers more opportunity for medical energy to find itself rewarded, or for medical supineness to incur not undeserved discredit.

SIX LECTURES ON THE

SURGICAL TREATMENT OF ANEURISM IN ITS VARIOUS FORMS.

DELIVERED IN THE THEATRE OF THE ROYAL COLLEGE OF SURGEONS.

By TIMOTHY HOLMES, F.R.C.S.,
Professor of Surgery and Pathology to the College.

Abstract of Lecture I.,

Delivered on Monday, June 8.

The Professor commenced by saying that, by the kindness of the Council of the College, he was permitted to complete the extensive and important subject which he began two years ago. Eighteen lectures will have been spent upon the discussion merely of the surgical treatment of the various forms of aneurism, excluding questions of diagnosis and pathology as far as practicable.

A few words were necessary to point out the main topics of the lectures of the present course. In the first course, forms of aneurism were dealt with to which, for the most part, the Hunterian operation is necessarily inapplicable, or in which it has always failed; and it was an object to show that we ought not to regard such diseases as incurable, but that by an attentive study of general and local treatment a certain proportion, though probably a very small one, may be successfully dealt with.

The second course was largely occupied in dwelling on the very dangerous nature of the Hunterian operation, and on its unsatisfactory results when applied to the large arteries near the thoracic aorta, and on the prospects that we have of bringing such aneurisms as those of the subclavian, axillary, and carotid arteries under the command of compression or other bloodless methods.

In the present course aneurisms of the thigh and leg will be chiefly spoken of. Here the case is different. When Hunter's operation was first introduced, its actual success was so great, and it held out such views of the successful treatment of diseases hitherto incurable, that it is no wonder that men so accomplished in the theory and practice of surgery as Lawrence and Guthrie spoke of it as if nothing more either could be, or would be, desired in order to render the treatment of aneurism thoroughly perfect. Thus occurred the reaction which is irresistible in matters of opinion. The compression treatment attempted, but without much success, by Hunter and his predecessors, was brought into practical use by the Dublin surgeons. Popliteal aneurisms were cured by flexion, and this and other forms of aneurisms were treated with marvellous celerity and ease by digital pressure, while other bloodless methods were also found occasionally successful. From this some surgeons seemed to conclude that the Hunterian operation had been a failure, while others, like Mr. Syme, convinced by experience of the fallacy of this doctrine, rejected the treatment by compression altogether.

Professor Holmes hopes to show that both these views are equally wide of the truth, and that the Hunterian operation has proved most successful in the hands of modern British surgeons when applied indiscriminately to all cases without any previous treatment—while the treatment by compression, on the methods hitherto in general use, when applied indiscriminately to all except the most severe cases (which have always been treated by ligature), has not given any better results. Yet the proportion of cases is by no means small in which compression offers such an easy and rapid cure, that no wise surgeon would prefer the Hunterian operation.

The surgeon should regard the one treatment as complementary of the other, satisfied that if he believes compression would do more harm than good, he has in the operation of Hunter an excellent and successful resource.

It is to the development of the facts on which these views rest that the other lectures of this course will be devoted. Meanwhile in this first lecture a gluteal aneurism will be considered. In this form of aneurism there is the strongest motive for avoiding Hunter's method, on account of its danger and want of success, while the bloodless methods hold out good prospect of cure, and the disease is often not urgent or dangerous enough to justify the risk of instant death. Gluteal aneurism is so rare a disease that no instance of it has occurred in our hospitals in London for many years. For its treatment two of the most formidable operations in surgery used to be considered the only alternatives, yet there are good reasons for believing that both these are, under ordinary circumstances, unnecessary.

The literature of this subject is to be sought mainly in the following English and foreign publications:—John Bell's case (treated by the old operation) is graphically described in his "Surgery." Steven's preparation from the first case, in which the internal iliac was tied, was on the table, and diagrams were shown, made from Professor Owen's description of it in the *Medico-Chirurgical Transactions*. Then there are Mr. Syme's two cases in his "Clinical Surgery," Bouisson's excellent paper in his "Tribut à la Chirurgie," a short paper by Blasius in the *Deutsche Klinik* (1859), a dissertation by Baum, of which Gurlt has published a complete abstract in his first "Year-Book," a paper by Servier in the *Gazette Hebdomadaire* 1868), and finally a very full and elaborate statistical treatise by Fischer in the eleventh of Langenbeck's *Archives*.

The artery affected in gluteal aneurism is usually the gluteal itself, but not unfrequently the sciatic. It is impossible without the dissection to know in any case whether it is the trunk of either artery or one of its branches which is diseased, for both vessels run a very short course undivided; nor is it easy to distinguish between aneurism of the gluteal and of the sciatic, as Steven's celebrated case shows. The internal pudic in its short course over the space of the ischium may be affected. Finally, there is a curious case reported by Dr. Hilton Fagge (in the *Guy's Hospital Reports*, 3rd series, vol. x., 1864), in which a gluteal aneurism was developed in an abnormal artery called sciatico-popliteal. In Fischer's table of gluteal aneurisms (including some cases of wound), thirty-five cases are recorded, in twenty-five of which the affection was supposed to be of the gluteal or its branches, and in six of the sciatic; in two no confident opinion could be formed. It seems certain that the gluteal artery is more frequently the seat of disease and injury than the sciatic.

The diagnosis of gluteal aneurism is very difficult, owing in some cases to the absence of pulsation, due to the absence of a sac. Many cases were not really aneurisms in any true sense of that term, but wounds or ruptures of the artery; such are of all cases the most difficult to diagnose, especially when not seen till some days after, and when inflammation of the integuments has followed the injury. The history of several of the recorded cases is that an incision has been made into a supposed collection of matter, and a great stream of arterial blood has gushed out. This disaster might sometimes be avoided by hearing a bruit, and by an exploratory puncture. In traumatic aneurism properly so called, the diagnosis has also often been erroneous, and that even when the case has been under observation from the beginning. Mr. Holmes is inclined to think, however, that in this kind of aneurism the diagnosis from abscess is easier than in some of the spontaneous, since there is the history to guide the surgeon. That real difficulties undoubtedly exist in diagnosing some of these cases, is proved by such as that which led astray Pirogoff and Bendt.

In the spontaneous form of aneurism other sources of fallacy are added. The skin and soft parts may be inflamed; the leading symptoms of the disease are not in general those of aneurism, as it occurs in other parts, but loss of motion in the limb, sometimes with persistent flexion and sciatic pain from pressure on the nerve. Hence the presence of abscess, either connected with sacro-iliac disease or pressing on the great sciatic nerve, first occurs to the mind of the surgeon. And even if the surgeon satisfies himself of the presence of pulsation and bruit, it cannot be denied that pulsation often, and bruit occasionally, are found in those cancerous tumours which are not rarely connected with the pelvic bones. The best-known instance of this sort is Guthrie's case (*London Medical and Surgical Journal*, vol. vi., 1835); and the latest instance occurred to the celebrated Italian surgeon Porter, who tied the internal iliac last year for supposed gluteal aneurism. The patient died in forty hours from peritonitis, and the disease proved to be malignant.

It appears, then, that there are very real and great difficulties in the way of the diagnosis of aneurisms in the buttock—depending obviously on the great depth at which they are situated, the comparatively small size of the tumour when entire, and the small size of the affected artery. But in many cases it would seem that the tumour has not been entire—but that a part has been ruptured, allowing of the sudden increase of the swelling and the disappearance of the pulsation. This

brings matters into very much the same condition as in a ruptured artery, and the same care is necessary to auscultate the part, and, in case the doubt is not thereby cleared up, to use the exploring needle. More especially should a minute and careful examination—under chloroform, if necessary,—be made of the bones of the spine and pelvis, both from the surface of the body in front and behind and from the rectum.

The Professor next passed from these general observations to consider the materials which we have for estimating the results of surgical treatment in the various forms of gluteal aneurism.

The recorded cases of accidental lesion, or disease of the arteries of the buttock, may be divided into—(1) open wounds; (2) subcutaneous wounds and ruptures—the so-called diffused traumatic aneurisms; (3) traumatic sacculated aneurisms; (4) spontaneous sacculated aneurisms; (5) arterio-venous aneurisms, aneurisms by anastomosis.

Of the first class nothing will be said, as the treatment has nothing peculiar in it beyond the difficulty caused by the depth of the vessel, and its possible retraction within the pelvis.

From Fischer's table of so-called gluteal aneurisms, one undoubted case—that by Thomas, of Barbadoes—is omitted. The preparation from this case is in Guy's Museum (No. 1504: 60). Another less certain case is quoted by Sir A. Cooper, from Averill's "Operative Surgery."

After deducting doubtful cases and arterio-venous and erectile tumours from Fischer's list, thirty-three cases of arterial aneurism in the buttock remain—quite sufficient to furnish us with information as to the difficulty and the success of treatment. Three of these thirty-three cases should be grouped as subcutaneous wounds of the artery, in which the absence of a sac seems to have caused much difficulty in the diagnosis. The first two are Charles and John Bell's well-known cases; the third is also related by John Bell, though it occurred in the practice of Mr. Jeffrey, of Glasgow. These cases agree in the absence of symptoms sufficiently definite to point to a lesion of the artery. This absence could only depend on the absence of an aneurismal sac. With these may be compared a case recently published in St. Bartholomew's Hospital Reports, vol. viii. In such cases of traumatic lesion of the artery, without formation of an aneurismal sac, the only course of treatment to pursue is to secure both ends of the vessel.

Besides these cases of ruptured artery, a large proportion of those in which there has been a true aneurismal sac have been classed as traumatic; but only the minority of these followed on penetrating wounds—the rest were caused by various injuries, and many of them are undistinguishable from those reputed spontaneous. It is of great importance to judge from the history of the injury (1) whether there is reason to believe that the tumour owes its origin to wounds of a healthy artery in a definite spot, and (2) whether this spot is external or internal to the pelvis. In many cases of true traumatic aneurism there can be little hesitation on either head. The seat of injury is in all probability outside the pelvis, and the surgeon has the choice given him of the Hunterian operation, the method of Anel, or the old operation of Antyllus; and, in fact, he has the further choice of galvano-puncture, injection of perchloride of iron, or any other of the local methods of treatment, and of the compression of the aorta or common iliac under chloroform.

The Hunterian operation, by ligature of the internal or common iliac artery, has been carried out twice only in the aneurisms reckoned to be of this form, and then with a fatal result. The success of the old operation in traumatic aneurisms of the buttock has been considerable. Four cases are recorded, three of which were successful; all of these operations were performed without any effectual compression of the aorta which would much diminish the hæmorrhage and render it easier to find the vessel. Still the operation remains as a desperate remedy—necessary perhaps in some circumstances, but only to be undertaken when other means have failed.

In one case—that under Campbell of Montreal—the gluteal itself was tied just above the sac, after the method of Anel, after the failure of the injection of perchloride of iron. In another case of traumatic aneurism under the care of Blasius (*Deutsche Klinik*, 1859), galvano-puncture was tried, but the case was not completed when the patient died of epidemic cholera.

The case shows little either way as to the efficacy of galvano-puncture, since, according to Blasius, on admission the apparatus used was not an efficient one. The diagnosis, though for a long time obscure, was made by detecting slight pulsation upon careful examination, and afterwards a bruit was heard on stethoscopic examination.

Now as to the experience of surgeons in the treatment of aneurism of the buttock considered to be of spontaneous origin. In these cases there is no certainty whereabouts the opening of the sac may be, nor what may be the condition of the coats of the vessel at the affected part. Hence it is not to be wondered at that the treatment by Hunter's operation has been far more generally carried out. The number of gluteal aneurisms of this sort in Fischer's table is twenty-one; in five no treatment was adopted, of the other sixteen cases nine were treated by ligature of the internal iliac and two of the common iliac artery, and four by the injection of the perchloride of iron; in the other case cure is attributed to rest and diet assisted by direct pressure.

The ligature of the common iliac was fatal in both cases. One of these cases, recorded in the *Deutsche Klinik*, 1853, p. 174, is of great importance and practical bearing on the subject under consideration. It was referred to at length by the lecturer, who remarked upon it thus:—"There can, I think, be little doubt that the aneurism was formed here by an accidental rupture of the artery, the vessel being diseased, and that similar disease of the coats of the internal iliac led to its rupture while the surgeon was trying to tie it. And this case forcibly illustrates Bouisson's remark, that the ligature of the internal iliac gives little security to the surgeon from the danger of finding the same disease in the artery where he ties it as that which may have led to the lesion of the aneurismal vessel." The operation of ligature of the internal iliac artery has been performed twelve times at least for aneurism, nine cases being enumerated in Fischer's table. The ligature of the artery leading to the sac, after the method of Anel, has been practised twice in spontaneous aneurisms, and both times it has failed. The sciatic happens in both cases to have been the vessel affected. The cases in which true aneurism (not telangiectases) has been treated by coagulating injections are—(1) one under Bruns's care, in which death followed from gangrene and hæmorrhage; (2) one under Baum's care, which is fully reported in Fischer's paper. In this case the reality of recovery admits of no question, but it is very doubtful if the cure was in any way to be attributed to the treatment. The case seems to resemble others on record of spontaneous disappearance of an aneurismal dilatation due to injury of the artery in fracture, such as those quoted in the "System of Surgery." A third case of the use of coagulating injections is related by Servier in *Gazette Hebdomadaire*, 1868, pp. 326-339. A fourth case was under Sappey, and is reported in the *Gazette des Hôpitaux*, 1864, p. 178. A previous case under Nélaton is reported in the same paper in 1862, p. 141, as an arterio-venous aneurism of the sciatic artery, but which Nélaton spoke of afterwards as being of the gluteal. A fifth case is Campbell's patient, alluded to above. This list cannot be said to give very satisfactory results, although it must be admitted that some benefit seems to have followed the injections in some of the cases.

If we review the opinions held by different surgeons as to the general treatment of gluteal aneurism, we find that Mr. Guthrie, when lecturing on the subject of aneurisms at the College of Surgeons forty-five years ago, laid it down as a rule that in all cases of aneurism of the gluteal and sciatic arteries the internal iliac should be tied, instead of an operation on the part itself; while Mr. Syme, even after a successful operation on the internal iliac for gluteal aneurism, expressed his preference for the old operation in any case in which he could be confident of finding the orifice of the sac external to the pelvis. M. Bouisson, on the other hand, is so impressed with the danger of the operation on the internal iliac, that he gives preference to the method of Anel—*i.e.*, to the ligature of the affected artery as it reaches the tumour. Servier, again, gives the preference to the injection of the perchloride of iron, and in this he is followed by Fischer, who, after a long review of all the opinions of his predecessors, pronounces the conclusion that "the injection of perchloride of iron must be looked on as the best treatment for gluteal aneurisms."

The ligature of the common iliac has never succeeded; the ligature of the internal iliac for gluteal aneurism has proved fatal in half the cases thus operated upon; and it is really doubtful whether in many cases of the disease the urgency of the symptoms and the danger to life are sufficient to justify

so very grave a risk. Moreover, we must not forget that no form of aneurism, when of moderate size, is unsusceptible of spontaneous cure. Then, as regards Anel's operation, a more extended experience has shown that it is not always, perhaps not often, possible, and that even in traumatic aneurisms the wound in the vessel may have been inside the pelvis, or possibly the wounded part of the artery may have been pushed into the pelvis by the growth of the sac. The old operation is a desperate business, and, in spite of the really considerable amount of success which has attended it, no prudent surgeon could contemplate it without repugnance. Besides, this operation may be rendered impossible by the retraction of the artery within the pelvis. The old operation has hitherto only been applied in traumatic cases, though there seems no valid reason for this restriction; and if the old operation be less dangerous than the ligature of the internal iliac, there appears to be no reason why it should not be practised in spontaneous equally as in traumatic aneurisms. But it is necessary to examine the tumour very carefully beforehand, in order to determine the prospect that there is of finding the artery outside the pelvis. In some cases there is no doubt on this point, and the tumour can be drawn away from the bone, and perhaps even the artery can be commanded by pressure above the tumour. But when the pulsating tumour reaches up to the pelvis it is necessary to examine the part very carefully from the rectum or rectum and vagina, in order, if possible, to fix the line of the mouth of the sac. Now that surgeons have ascertained the possibility of passing the whole hand into the rectum under chloroform without injury to the functions of the bowel, much more exact ideas on this head may be formed than were formerly possible. If any considerable part of the tumour lay within the pelvis it would not be wise to risk the old operation, although in Bigelow's case, where a part or loculus of the sac encroached on the pelvis, the orifice of the artery was outside.

We have no experience yet of the two methods of treatment to which Mr. Holmes is disposed to look most hopefully for the cure of these aneurisms—viz., compression of the common iliac artery (or aorta) and galvano-puncture. Gluteal aneurism presents almost every feature which is encouraging for compression. The tumour, if the sac has not burst, is usually of no great size, the abdomen is natural, and any part of the aorta or common iliac is accessible to pressure. Surely the first step in the treatment of such a case should be to try the effect of methodical compression of the aorta or common iliac artery. If this can be done successfully without chloroform, the patient would not be exposed to any serious danger, and there is a great possibility of cure. If compression without chloroform is not possible, then the cure of the aneurism by total compression under chloroform should be attempted, and in all probability will be obtained in a large proportion of cases. If it fail it may be repeated in combination with coagulating injection, or galvano-puncture may be, and should be, tried. It is only after the failure of all these measures that the question of a capital operation occurs; and this question is a serious one. Perhaps it would be well to restrict the operation on the internal iliac artery to those cases in which there are grave doubts whether the mouth of the aneurism is not inside the pelvis; whenever it is plainly outside that cavity, Anel's operation should be performed, and if on trial this is impossible, the sac should be opened. The abdominal tourniquet would rob the old operation of much of its danger.

There are only two cases of arterio-venous aneurism of the buttock on record, and in both the sciatic was the artery affected. The example of Nélaton's case would encourage a surgeon to attempt the cure by perchloride of iron, or perhaps by galvano-puncture with the abdominal tourniquet; but on the failure of such attempts, the old operation would be the only trustworthy method, if the symptoms were sufficiently urgent to justify the risk.

The conclusions as to the treatment of gluteal aneurism, then, are—1. When either traumatic or spontaneous, rapid or gradual compression applied to the aorta or common iliac should be tried. 2. If this treatment does not succeed by itself, it should be supplemented by coagulating injections or galvano-puncture during anæstheticism and compression. 3. When such treatment fails, either the internal iliac must be tied in one set of cases, or the old operation or Anel's ligature resorted to in another set as pointed out above. 4. The ligature of the internal iliac is liable to failure in cases of spontaneous aneurism from a diseased condition of the coats of the artery, and should always be avoided when other means of treatment are available.

ORIGINAL COMMUNICATIONS.

OVARIOTOMY IN HOLLAND.

By T. SPENCER WELLS, F.R.C.S.,
Surgeon to the Queen's Household and to the Samaritan Hospital.

Dr. A. de Waal Malefijt, of Haarlem, at my request, endeavoured to obtain particulars of all the cases in which ovariotomy had been performed in Holland until the end of 1873. He now writes to me that "a promising student at the University of Utrecht, Mr. Van Wely, has succeeded in bringing together all the cases of ovariotomy which have occurred in Holland till 1874, and has made them the subject of his inaugural dissertation. The enclosed table is copied and translated from that paper. In the course of this year a few more operations have been performed—one that I know, in Amsterdam, in which drainage after Mr. M. Sims' method was used. It terminated fatally. I think you would really oblige the profession in Holland by inserting my communication in the *Medical Times and Gazette*." Excluding two incomplete operations, the result of twenty-nine cases of complete ovariotomy is sixteen deaths and thirteen recoveries. In every case of recovery the pedicle was secured by the clamp.

No.	Medical attendant.	Date of operation.	Age.	Condition.	Adhesions.	Treatment of pedicle.	Length of incision.	Result.	Particulars of treatment; subsequent history; cause of death.
1..	Prof. Polano, Rotterdam (hospital)	Aug. 13, 1864	29	Married; 1 child	Slight parietal	Clamp	14 centim.	Recovered	Wound closed by silver-wire sutures; clamp detached on seventh day; left hospital on Oct. 10.
2..	Prof. Polano, Rotterdam (hospital)	Aug. 18, 1865	47	Widow	—	—	—	Died	Peritonitis.
3..	Prof. Polano, Rotterdam (hospital)	Oct. 16, 1865	34	Married	—	—	—	Died	Complication by fibroma uteri on the day of operation.
4..	Dr. E. Hanlo, The Hague (private house)	Nov. 17, 1865	48	Married	Parietal	Clamp	23 centim.	Recovered	It was necessary to make an incision of enormous length in order to enable the operator to extract the cyst; wound closed by silver-wire sutures; clamp detached on fifth day.
5..	Prof. Polano, Rotterdam (hospital)	1866	28	Single	—	—	—	Died	—
6..	Prof. J. W. R. Tilanus, Nichtevecht (private house)	Aug. 23, 1866	32	Single	Parietal	Clamp	10 centim.	Recovered	Multilocular cyst.
7..	Prof. Polano, Rotterdam (hospital)	May 2, 1867	38	Single	—	—	—	Died	Peritonitis.

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No.	Medical attendant.	Date of operation.	Age.	Condition.	Adhesions.	Treatment of pedicle.	Length of incision.	Result.	Particulars of treatment; subsequent history; cause of death.
8..	A. de Waal Malefijt, Haarlem (hospital)	Sept. 10, 1867	58	Married; 12 children	Parietal	Clamp	13 centim.	Recovered	Woman of dissolute habits; four tappings; multilocular cyst; wound closed by silver-wire sutures; clamp detached on sixth day.
9..	Prof. Simon Thomas, Leyden (private house)	June 8, 1868	51	Single	Parietal	Clamp	12 centim.	Recovered	Multilocular cyst of left ovary; right ovary contained two small cysts; was removed also.
10..	A. T. C. Schoevers, The Hague (private house)	Oct. 20, 1868	29	Single	Thick and extensive	Clamp	12 centim.	Died	One tapping; multilocular cyst of left ovary; at the end of the operation the respiration suddenly stopped—most probably from chloroform.
11..	Dr. Ligtenberg, The Hague (hospital)	April, 1870	54	—	None	Clamp	17 centim.	Died	Multilocular cyst; wound closed by silver-wire sutures. Died on twenty-first day from pneumonia.
12..	F. Ph. Küthe, Tiel (private house)	May 9, 1870	41	Married; 3 children	Extensive parietal	Ligature	15 centim.	Died	Colloid cancer; pedicle returned into the abdominal cavity; wound partially closed by silver-wire sutures; inferior angle left open. Died on third day.
13..	A. de Waal Malefijt, Haarlem (hospital)	Sept. 14, 1870	28	Married; 1 child	Very extensive parietal and omental	Clamp	13 centim.	Recovered	Operation three months after first confinement; very careful dissection required; no ligatures; unilocular cyst of right ovary; nine months after operation delivered of seven months twins; since, two confinements.
14..	Prof. Simon Thomas, Leyden (hospital)	Dec. 25, 1870	48	Widow; 3 children	Thick parietal	Clamp	15 centim.	Died	Unilocular cyst of right ovary; left ovary not healthy—removed. Died fifty-five hours after operation from purulent peritonitis.
15..	Dr. J. van der Hoeven, Rotterdam (hospital)	Jan. 7, 1871	26	Single	None	Clamp	15 centim.	Died	Unilocular cyst of left ovary. Died on third day from inflammation.
16..	Dr. J. van der Hoeven, Rotterdam (hospital)	Nov. 28, 1871	34	Married; 1 child	Thick parietal	Clamp	—	Died	Died on eleventh day from purulent peritonitis.
17..	Prof. Simon Thomas, Leyden (private house)	Feb. 18, 1872	36	Married	Filiform parietal and omental	Clamp	14 centim.	Recovered	Unilocular cyst; wound closed by five circumvoluted sutures. Slow convalescence.
18..	Dr. E. Hanlo, The Hague (hospital)	Feb. 25, 1872	48	Married; 4 children	None	Clamp	8 centim.	Died	Multilocular cyst of left ovary; wound closed by silver-wire sutures. Collapsed suddenly on second day.
19..	A. de Waal Malefijt, Haarlem (private house)	April 10, 1872	52	Single	None	Clamp	16 centim.	Recovered	Unilocular cyst of left ovary; wound closed by silver-wire sutures; during the first days after operation, very troublesome cough. Rapid recovery.
20..	Dr. J. van der Hoeven, Rotterdam (hospital)	June 24, 1872	13	Single	Extensive omental	—	—	Died	Multilocular cyst. Died thirty hours after operation from peritonitis acuta exudativa.
21..	Prof. Simon Thomas, Schiedam (private house)	June 25, 1872	49	Married; 6 children	Parietal	Clamp	20 centim.	Recovered	Multilocular cyst of right ovary; wound closed by four circumvoluted and five superficial sutures; adhesions separated by the écraseur; bleeding vessels secured by silver wire.
22..	Prof. Halbertsma, Sneek (private house)	Sept. 11, 1872	—	Married	Parietal	Clamp	14 centim.	Recovered	Unilocular cyst; wound closed by silk sutures.
23..	Prof. Simon Thomas, Echt, Limburg (private house)	Dec. 18, 1872	32	Married; 1 child	Extensive omental	Clamp	15 centim.	Died	Multilocular cyst of right ovary, weighing 18 to 20 kilogrammes; adhesions cut with the écraseur, and tied with silver wire. Died on the forty-fourth day from inflammation.
24..	Dr. H. de Zwaan, The Hague (hospital)	Feb. 29, 1873	38	Married; 6 children	None	Clamp	12 centim.	Recovered	Multilocular cyst, complicated with colloid, of right ovary. Was delivered on Dec. 7, 1873, of a fine child.

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No.	Medical attendant.	Date of operation.	Age.	Condition.	Adhesions.	Treatment of pedicle.	Length of incision.	Result.	Particulars of treatment; subsequent history; cause of death.
25..	Dr. J. van der Hoeven, Rotterdam (hospital)	April 24, 1873	48	Married	—	—	—	Died	Died three days after operation. Abdomen filled with pus.
26..	A de Waal Malefijt, Haarlem (private house)	May 10, 1873	36	Married; 8 children	Thick, organised to the abdominal wall and to all the intestines	—	16 centim.	Died	Multilocular cyst of right ovary. After a most laborious dissection of two hours' duration, it was evident that the operation could not be completed; the detached parts of the cyst were secured with strong whipcord ligatures and cut away. Died after three days.
27..	W. Büchner, Deventer (hospital)	July 5, 1873	45	Widow; 7 children	Extensive parietal	—	6 centim.	Died	Incomplete operation. Died after twenty-two hours.
28..	Prof. Simon Thomas, Leyden (hospital)	Aug. 5, 1873	56	Widow	Extensive parietal	Clamp	14 centim.	Died	Unilocular cyst; wound closed by six circumvoluted sutures. Died fifty hours after operation from peritonitis.
29..	Dr. H. de Zwaan, The Hague (hospital)	Sept. 25, 1873	57	Married; 6 children	Slight parietal and omental	Clamp	10 centim.	Recovered	Unilocular cyst, containing osseous matter; wound closed by silver-wire sutures.
30..	Prof. van Goudoever, Utrecht (private house)	Sept. 26, 1873	36	Single	None	Clamp	8 centim.	Recovered	Unilocular cyst; wound closed by silk sutures.
31..	Dr. J. van der Hoeven, Rotterdam (St. Anthony Hospital)	Oct. 19, 1873	47	Married	Strong parietal	—	—	Died	Unilocular cyst. Died on seventh day.

REPORTS OF HOSPITAL PRACTICE
IN
MEDICINE AND SURGERY.

NORTH-EASTERN HOSPITAL FOR CHILDREN.

CASES ILLUSTRATING THE USE OF THE PNEUMATIC ASPIRATOR.

(Under the care of Drs. CAYLEY and SANSOM.)

Case 1.—*Pleurisy—Paracentesis—Recovery.*

EMILY D., aged 8 years, was admitted an in-patient of the hospital on August 26 last, under the care of Dr. Cayley. Patient was at school on August 19; the next day she was ill in bed, complaining of pain in the side and shortness of breath. On admission the left side was found to be absolutely dull, on which side slight bronchial breathing could be heard only at the apex. The heart was wholly displaced to the right of the median line. The symptoms not being relieved by medicinal treatment, paracentesis was performed on the 29th—nine days after the illness commenced—by means of the aspirator, and forty-six ounces of fluid withdrawn. The puncture was made in the ninth intercostal space, on a line with the angle of the scapula. The symptoms were much relieved by the operation. The patient made a rapid recovery, and was discharged quite well on September 9.

Case 2.—*Empyema—Paracentesis, repeated four times—Establishment of Fistulous Openings—Waxy Degeneration of Liver, Spleen, and Kidneys.*

Robert H., aged 4 years, was admitted January 6, under the care of Dr. Cayley, with the following history:—Is the only surving child of a family of six children, two of whom died from scarlet fever, two from dropsy, and one from measles. His health had been very good up to eight weeks before applying at the hospital, when he was seized with vomiting, abdominal pains, and feverish symptoms. He had since suffered greatly from dyspnœa, and had gradually wasted. Orthopnœa at night. No family history of tubercle.

On admission he was very pale and much emaciated. There was moderate dyspnœa; the intercostal spaces on the left side were obliterated, and respiratory movement on that side could not be observed. There was complete dulness over the whole of the left side of the chest, and almost entire absence of respiratory sounds. Apex-beat observed on the right of the sternum, on a level with the nipple. Breathing on the right side in front, normal; behind, a few bronchitic râles could be heard. Circumference of chest at nipple-line—left side, eleven inches; right, ten inches. It was decided to perform paracentesis at once, and between fifteen and sixteen ounces of pus were withdrawn by means of the aspirator. The puncture was made in the infra-axillary region, sixth intercostal space.

January 7.—Has slept better since the operation. Absolute dulness remains on the left side, but the apex-beat is now in its normal position. Feeble respiratory sounds audible in front.

10th.—Dulness remains as when last observed. Heart again displaced to the right.

14th.—The dulness continuing absolute, and the displacement of the heart being more marked, it was decided to repeat the operation of paracentesis. This time the puncture was made behind, in the ninth intercostal space, in a line with the angle of the scapula. About twelve ounces of thick odourless pus were withdrawn. A little blood also flowed. During the operation the patient was attacked with an irritable cough, which ceased when the trocar was removed.

16th.—Wounds quite healed. Patient seems well.

20th.—Has had two severe attacks of dyspnœa. Left side of the chest distended and quite dull. Paracentesis was again performed, and fourteen ounces of thick pus drawn off. A little blood escaped towards the end of the operation. The wound was left open, and a poultice applied over it.

21st.—Wound healed. Patient breathes quietly; no cough. Fair appetite.

27th.—Since last tapped the patient has seemed much better, but yesterday he had occasional attacks of dyspnœa. To-day Dr. Cayley again used the aspirator, and withdrew two ounces of thick pus. Tubular breathing heard behind.

February 4.—A considerable amount of breathing can now be heard at the back.

17th.—Distinct bulging and fluctuation beneath the nipple, and also behind, at the seat of the former punctures. A puncture was made with a trocar at each spot, and five ounces of thick pus mixed with blood were drawn off. The aspirator was not used on this occasion.

24th.—Orifices discharging freely. Dulness still continues in front, but at the apex some breath-sounds are audible, though attended with crepitus. Some breathing now audible at base both in front and behind. General health much improved; allowed to walk in the garden.

The openings still continued to discharge, but at no time did the pus become fetid. The patient was sent to the Convalescent Home at Croydon on March 6, from whence he returned two months after to all appearance well. The ribs are flattened on the left side, especially below the clavicle. The left nipple is lower than the right. Tubular breathing can be heard over the whole of the left side of the chest, being

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loudest in front. No expansion on that side. Still some discharge of pus from the opening in front.

He was sent to his home, but has since returned to be attended as an out-patient. Liver and spleen both enlarged, and the urine is albuminous, indicating amyloid degeneration of the kidneys.

Case 3.—Empyema—Paracentesis, repeated once—Recovery.

Annie D., aged 3¾ years, was admitted on September 19, under the care of Dr. Cayley. Previous health good. Ill fourteen days; said not to have had much cough, but great dyspnœa and emaciation; pulse 160; respirations 72. Breathing seems much distressed; absolute dulness over left side of chest from apex to base. Breathing tubular, and much feebler than on opposite side; behind breathing feeble and tubular, but everywhere audible. Heart completely displaced to the right.

September 20.—Paracentesis performed with the pneumatic aspirator. The puncture was made behind at the ninth interspace. Fifteen ounces of pus were withdrawn.

30th.—Dulness over the whole of the left side; heart displaced. Paracentesis was again performed, and thirteen and a half ounces of very thick curdy pus drawn off, which flowed with difficulty, the canula being frequently blocked up with pellets.

After the operation the patient made a rapid recovery. The dulness was gradually lost, and, when discharged, vesicular breathing could be heard all over the chest.

Case 4.—Empyema—Aspiration—Recovery.

Elizabeth P., aged 2½ years, admitted on October 15, under the care of Dr. Sansom. Had scarlet fever eight weeks ago. Now has a severe cough; dyspnœa; great emaciation. Right side of the chest is dull throughout; feeble breathing generally.

October 22.—Right side of the chest completely dull. Breath-sounds heard as far as level of the nipple; not to be heard below.

25th.—Dulness complete on right side of the chest; breath-sounds can be heard at apex only.

November 1.—Paracentesis performed by aspirator at ninth interspace behind. Only about one ounce of pus escaped, owing to the canula becoming blocked.

5th.—Paracentesis performed in front; twelve ounces of blood and pus withdrawn.

8th.—Vesicular breathing can be heard all over the chest; no dulness; child seems quite well.

13th.—Right side of the chest still resonant; vesicular breathing heard all over the back except at the extreme base; no ægophony.

22nd.—The child has just manifested a copious rash of varicella. The right chest continues resonant, and, with the exception of a slight blowing with expiration, no morbid sounds are heard.

Discharged cured.

(To be continued.)

ST. THOMAS'S HOSPITAL.

CASES OF OVARIOTOMY.

Case 1.—Ovarian Tumour of nine years' duration—Ovariotomy—Suppuration in Pedicle—Recovery.

(Under the care of Mr. WAGSTAFFE.)

MARY N., a healthy-looking woman, aged 29, single, was admitted into St. Thomas's Hospital, under the care of Mr. Wagstaffe, on March 11 of the present year. When twenty years of age she noticed she was swelling, and at that time suffered a great deal of pain, and had an attack of retention of urine. She had increased in size gradually from that time, but for the last few years she had otherwise become thinner. The swelling was median from the first, but she had for some time complained of pain in the right side before passing water. She was unable to lie on her back, or even to lean back. The catamenia had been always regular. There was no evidence of uterine, renal, cardiac, or hepatic mischief. Her mother died of phthisis.

Her condition when examined after admission was the following:—The abdomen was much distended, especially about the epigastric region; circumference at umbilicus, thirty-seven inches and a quarter. The tumour appeared to be composed of a single cyst, the wave of fluctuation being very distinct. The relation of intestines was not altered by the position of the patient.

On March 13 Dr. Barnes examined her, and gave as his opinion that the tumour was connected with the left ovary, the left half of the abdomen being rather larger than the right, and the uterine sound passing to the right side.

March 28.—Mr. Wagstaffe operated, after the patient had been placed under the influence of chloroform and previously quieted by a subcutaneous injection of morphia. The patient being placed at full length on the table, an incision three and a half inches long was made in the median line, between umbilicus and pubes. Peritoneum readily recognised and opened, and a large trocar passed into the cyst, rapidly removing seventeen pints of thin clear fluid. No escape into peritoneal cavity. Walls of cyst thin; cyst thoroughly emptied, and carefully withdrawn. Pedicle short, but traction upon it especially avoided; clamp applied, and cut edge of pedicle touched with solid perchloride of iron. No adhesions found, and no ascitic fluid in peritoneum. Intestines slightly exposed. Tumour found to be connected with the left ovary. Wound closed by six wire sutures, five of which included the peritoneum; wound dressed with carbolised oil.

The operating-theatre in which the operation was performed had been thoroughly disinfected, under Mr. Wagstaffe's directions, in consequence of the last case operated upon, shortly before, having been one of pyæmia; and the assistants' hands were all carefully disinfected with carbolic acid.

For the next sixteen hours she vomited rather frequently a little bilious matter; but as she was often rather subject to this, it was not looked upon as serious, and was eventually checked by a small mustard-plaster to the epigastrium.

29th.—Took twelve ounces of beef-tea in the twenty-four hours, and ten ounces of champagne.

30th.—Water troublesome, loaded with lithates.

31st.—Three sutures removed.

April 1.—Two sutures removed.

3rd.—Clamp removed (five days after operation).

5th.—Discharge of watery pus from the wound; no abdominal tenderness, but urine very much loaded with lithates, and bladder irritable.

14th.—Remains of pedicle separated; small sinus from wound running under rectus; no pain or tenderness; eats well; comfortable.

19th.—Rigor, with rise of temperature.

20th.—Wound reopened, and about three-quarters of an ounce of very fetid pus, with gas, evacuated from pedicle. Probe passes four inches directly inwards from wound. Much nausea and depression, but no abdominal tenderness. Temperature 106°; pulse 90. Sinus washed out with carbolised water. Carbolic acid (a quarter of a grain in glycerine and water) injected under the skin of the forearm.

21st.—Nausea and depression continuing, and discharge from pedicle still extremely offensive. Subcutaneous injection of carbolic acid repeated. Wound washed out every three or four hours. Drainage-tube left in.

22nd.—Much improved, but very weak.

23rd.—Up for two hours in arm-chair.

26th.—Out on balcony during the day.

30th.—Laminaria tent in wound for the purpose of dilating a constriction about two inches from surface.

May 5.—Up for eight hours, and walking about.

19th.—Up all day lately; walking about comfortably. Taking cod-liver oil. Wound now very small, but a fine drainage-tube is left in.

27th.—Is going to the seaside. Sinus not quite closed; otherwise well.

Remarks.—This case presents one or two features of interest. The pedicle was very short, and consequently the strain upon it when fixed by the clamp outside the wound was very great. Moreover, the retraction of it upon the removal of the clamp was very marked, and gave rise, no doubt, to the complication which followed. The formation of an abscess in the pedicle so deeply was a matter of the gravest importance, and upon the evacuation of this the fæcal odour from its interior suggested communication with the intestinal canal. However, the contiguity of an abscess-cavity with the intestine is usually attended with the collection of fæcal gas, and does not indicate any perforation of intestine. The subcutaneous injection of carbolic acid was made use of in this case during the time of the system being evidently impregnated with septic products.

(To be continued.)

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Medical Times and Gazette.

SATURDAY, JUNE 13, 1874.

PROF. GOLDWIN SMITH ON RIGHTS OF WOMEN.

Professor Goldwin Smith has published in the June number of *Macmillan's Magazine* an article well worthy of notice, as a sign that the reaction against extravagant doctrines is not confined to mere Conservatives. He deals with the subject of "Woman's Rights." He himself, he tells us, "once signed a petition for female household suffrage, got up by Mr. Mill." He did so because "he had always been for enlarging the number of active citizens as much as possible," but "he had not, when he signed the petition, seen the public life of women in the United States." But, since that time, Mr. Goldwin Smith confesses that he has been "led to reconsider what he had done, and prevented from going further;" partly by the influence of "the best and most sensible women of his acquaintance," and partly by the decay into which Mr. Mill's once potent authority has fallen—a decay, the first outward symptom of which, by the way, was Mr. Mill's defeat by Mr. W. H. Smith, at the Westminster election in 1863.

"Since that time," continues Mr. Goldwin Smith, "Mr. Mill's autobiography has appeared, and has revealed the history of his extraordinary and most portentous education, the singular circumstances of his marriage, his hallucination as to the unparalleled genius of his wife, and peculiarities of character and temperament, such as could not fail to prevent him from fully appreciating the power of influences, which, whatever our philosophy may say, reign, and will continue to reign supreme over questions of this kind. To him marriage was a union of two philosophers in the pursuit of truth; and in his work on the position and destiny of women, not only does he scarcely think of children, but sex and its influences seem hardly present to his mind."

Mr. Goldwin Smith goes on to describe the fallacies which have beset Mr. Mill and his followers, when they have depicted woman as constantly the slave and victim of man. But to us, who are from time to time harassed by the claims of young women to be admitted into medical schools, it may be permitted to quote what this great Radical professor says on that branch of the subject:—

"The exclusion of women from professions is cited as another proof of constant and immemorial injustice. But what woman asked or wished to be admitted to a profession fifty, or even five-and-twenty years ago? What woman till quite recently would have been ready to renounce marriage and maternity in order that she might devote herself to law, medicine, or commercial pursuits? The fact is, the demand is connected with an abnormal and possibly transient state of things. The expensiveness of living in a country where the fashion is set by millionaires, combined with the very overcrowded condition of the very callings to which women are demanding admission, has put extraordinary difficulties in the way of marriage. Many women are thus left without an object in life, and they naturally try to open for themselves some new career. The utmost sympathy is due to them, and every facility ought in justice to be afforded them, though, unhappily, the addition of fresh competitors for subsistence to a crowd in which literally famine has already been at work will be as far as possible from removing the real root of the evil; to say nothing of the risk which a woman must run in committing herself irrevocably to a precarious calling, and closing against herself the gate of domestic life. But the demand, as has been already said, is of yesterday, and probably in its serious form is as yet confined to the countries in which the special impediments to early marriages exist. In the United States it is not easy to distinguish the serious demand from a passion for emulating the male sex, which has undoubtedly taken possession of some of the women there, as it took possession of women under the Roman empire, who began to play the gladiator when other excitements were exhausted."

"What has been said as to the professions is equally true of the universities, which, in fact, were schools of the professions. A few years ago, what English girl would have consented to leave her home and mingle with male students? Even now, what is the amount of settled belief in the right, as it is termed, of 'co-education'? What would be said to a young man if he presented himself in the name of that right at the door of any female college? Without arraigning the past, those whose duty it is may consider the two distinct questions—Whether it is desirable that the education of both sexes shall be the same, and whether it is desirable that the young men and young women of the wealthier classes shall be educated together in the same universities? Beneath the first probably lies the still deeper question, Whether it is good for humanity that woman, who has hitherto been the helpmate and the complement, shall become, as the leaders in the Woman's Rights Movement in the United States evidently desire, the rival and competitor of man? Both she cannot be; and it is by no means clear that, in deciding which she shall be, the aspirations of the leaders of the movement coincide with the interests of the sex."

We must not follow Mr. Goldwin Smith any further in his ruthless demolition of Mr. Mill's theories of the "subjection" and wrongs of women. What we have quoted may show the light in which a political economist, bound by no ties of reverence for the past, looks on the modern efforts for the androgynisation of women. For our own part, we have always advocated the utmost liberality in the treatment of women: the best possible education, so as to enable them to fulfil the duties of wife and mother intelligently, and to earn their own bread if choice or necessity prompt them. We should like to see young mothers drilling their sons in the Latin grammar, and think that modern female education should include Latin and arithmetic. Nor do we think that professional life need shut women out from marriage. All we would say is this: if women must study physic, let them,—only let them do so apart from men.

SANITARY REFORM AND ITS OPPONENTS.

The difficulties which the cause of sanitary reform has to contend with, from quarters where they should be the least expected, are well shown in two instances which have just occurred in the West of England.

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In *Pulman's Weekly News* of June 2 is reported the case of a boy who was summoned by the Medical Officer of Health for the Chard Union for exposing himself in the streets while his skin was desquamating after an attack of scarlet fever. He had been not only to work, but to the Whitsun meeting of a friendly society at Donyatt, and to a fair at Chard while in this state, and was, of course, a most dangerous individual to be at large in a community. As the summons was issued rather as a warning to others than with the intention of inflicting a heavy fine, the penalty was not pressed for, and the magistrates dismissed the defendant with a caution. It will scarcely be believed that the editorial comment on the proceedings, as contained in the heading to the report of the case, should be "Scientific Humbug." No better commentary on this "scientific humbug" could be given than the following extract from the *Times* (also referred to in another column), which would be very amusing were the subject not so serious:—

"Should this meet the eye of the lady who got into the 12.30 train at New Cross Station on Friday, May 15, with two boys, one of whom was evidently just recovering from an illness, she may be pleased to learn that three of the four young ladies who were in the carriage are very ill with the measles, and the health of the fourth is far from what her relations could desire."

Within the last month the proprietor and editor of the *Sherborne Journal*—like *Pulman's Weekly News*, a widely circulated weekly paper of considerable ability—was summoned for refusing to allow his infant to be vaccinated. His defence consisted of a statement of the supposed evils of vaccination, including the increased mortality from other diseases than small-pox since its introduction, and a most mournful and utterly inaccurate account of the dangers of transmission of syphilis by its means, together with other fallacies, which were reported at length in the paper with which the defendant is connected.

We only call attention to these two cases here, in order to protest in the strongest manner against the opposition which persons in the position of editors of country papers are apt to make to sanitary improvements and sanitary legislation. Their journals, eagerly read by the less educated classes in the districts which they supply, carry an amount of weight with them which is denied to the pen of the private individual or the utterances of the pulpit, and they fail to perform one of the highest duties which a citizen owes to his country if they persistently depreciate or attempt to nullify the efforts of men who have made questions of public health a life's study.

It is sanitary legislation—imperfect as it still is—which has made the comparison between the health statistics of English and foreign cities so remarkable as it has lately been, and which makes, for example, the mortality of London at the present time nineteen per thousand while that of Munich is thirty-eight. It is sanitary legislation and sanitary enlightenment which have kept us free from cholera, while abroad the disease has been ravaging important cities. And if we are ever to stamp out (as we should strive to do) diseases like scarlet fever, which cuts off the healthiest and most promising of our children, and whose contagion is as subtle and as easily disseminated as the breath of scandal; or small-pox, which used to kill ninety-six per thousand of our population, and which still kills from 14·5 to 33·8 per cent. of the unvaccinated, but only 0·5 to 5·24 per cent. of the vaccinated, it must be by the mutual endeavours of all parties to make sanitary legislation a reality, and not a farce.

Those whose responsible office it is to direct public opinion, whether through the press or in other ways, fail in discharging a sacred duty if they try to retard the working of measures which, though compulsory, are imperatively called for, and should be cheerfully and willingly supported.

PSEUDO-HYPERTROPHIC MUSCULAR PARALYSIS.

In our article on this subject last week, we omitted to include the name of Dr. B. Foster, of Birmingham, amongst the authors who have written upon Duchenne's paralysis. We did not suppose that those we referred to were the only writers who had described cases of the sort, but they were the only ones whose writings we remembered at the time. There was good reason, however, why Dr. Foster's observations should not have escaped us, seeing that he contributed some remarks upon the subject to our columns on May 29, 1869, as well as a paper to the *Lancet* on May 8, 1869.

In a work by Dr. Foster, which is promised to the profession, and which we believe will soon be forthcoming—viz., "Lectures and Essays on Clinical Medicine,"—there will appear a lecture on Duchenne's paralysis, in which are given the notes of four cases, including two of Dr. Russell's, with remarks upon the whole subject. These various communications contain a full account of the microscopic examination of the muscles. Dr. Foster also takes notice of the elevation of the temperature of the limbs above that of the body, but says that in none of the cases he records was there any constant elevation or depression of temperature. There was a mottling of the surface of the lower limbs observed in the cases narrated, which probably may be referred to some peculiarity in the capillary circulation. The discoloration chiefly affected the lower limbs, sometimes the upper limbs, but never the face or neck; it varied at different times from a bright rosy to a dusky red tint. Similar appearances have been noticed by Schutzenberger, Behrend, and Griesinger. This discoloration both Griesinger and Foster have remarked to become more pronounced when the patient made attempts to produce movements of the lower limbs which he could not effect. Dr. Foster speaks of it as "a kind of blushing of the limbs at their own powerlessness."

At one time Dr. Foster admits he thought these cases might be another manifestation of hereditary syphilis, and on this account made a careful examination of all the patients and their families. In one case he found a fairly characteristic central incisor, but in none of the three families to which the children belong has a history of syphilis been found, and in none of the brothers or sisters of either of the patients have syphilitic teeth or traces of keratitis existed.

Dr. Foster will probably see reason to modify his opinion that the cause of the disease is probably some lesion of the vaso-motor system, since Dr. Lockhart Clarke's communication to the Medical and Chirurgical Society. As to diagnosis he says:—

"Microscopic appearances distinguish the affection from one with which it has been hitherto confounded—progressive muscular atrophy of childhood,—in which the muscular degeneration is decidedly fatty. Progressive muscular atrophy, which is rare in childhood, begins by attacking the muscles of the face, and follows a slow and descending course, dissecting out separate groups of muscles. The wasting is partial and irregular, and is in direct proportion to the loss of power. Infantile paralysis may also be mistaken for the disease under notice; but the sudden invasion, the occurrence of febrile symptoms, and the completeness of the paralysis at first, are generally sufficient to distinguish it. The electro-muscular contractility is also impaired, while in the earlier stages of paralysis with apparent hypertrophy it is unaffected. The peculiar gait, the separation of the feet, the exaggerated lumbo-sacral curve, and the bulk of the calves, are generally sufficient to distinguish Duchenne's paralysis from other conditions which are characterised by retarded development of locomotory power in early life."

DR. LETHEBY'S ANNUAL REPORT.

After nineteen years of efficient and highly beneficial service to the City of London, Dr. Letheby, the Medical Officer of Health, has resigned that important post, and has published

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his last annual report. Like its predecessors, this document is elaborately and clearly written, and conveys a vast amount of information, and will naturally attract the attention of the general public. Whoever may be the successor of this indefatigable and able public servant cannot do better than follow in the footsteps of his predecessor. The report above alluded to under the following different heads states:—

Deaths.—The death-rate has been highest in the Eastern division of the City, and lowest in the Central; in the former it reached to 21·3 per 1000 of the population, and in the latter to only 19·9. In the Western district it was intermediate—namely, 20·83 per 1000; and in the whole City it averaged 20·6. This is much below the annual death-rate (25·1) of the preceding ten years, and it is also below the average death-rate (24·6) for the rest of the metropolis. Looking at the death-rate in the City during the last thirty years, as well as that of the metropolis generally, where active sanitary measures have for many years past been constantly in operation, it does not appear that the mortality is notably affected, for in the first ten years of that period the death-rate in the City was 25·29 per 1000 of the population, and in the last decade it was 25·11. So, also, in London during the first period it was 24·48 per 1000, and in the last 24·14, thus showing but little variation. It is manifest, indeed, that the death-rates alone afford no reliable indication of the state of the public health, or of the value of sanitary measures, and that for any useful purpose they must be considered in connexion with a variety of circumstances—as the birth-rate, the mortality of children, the character of the diseases which are the chief causes of death, etc. The common practice, therefore, of quoting the death-rate of a place irrespective of these considerations is singularly fallacious, and it is exemplified in the fact that the average death-rate in England has remained pretty constant during the last thirty years or more, notwithstanding the progress of sanitation and the beneficial effects of it on the public health.

Mortality of Males and Females.—The relative mortality of males and females in the City appears to be that in the Western district of the City 107 males die for every 100 females; in the Eastern, 115 for every 100; and in the City proper 130. In the entire City the proportion is 118 males for every 100 females.

Mortality at different Ages.—The classification of deaths according to age shows the result to be that in every 1000 deaths in the City, 173 were of infants of less than a year old, and 297 were of children under five years of age. At other ages there were sixty-one deaths of young persons at from five to twenty years of age, 123 at from twenty to forty years of age, 231 at from forty to sixty, and 288 at sixty and upwards. The mortality of infants of less than a year old is excessive, for it amounts to 17·52 per cent. of the births. In the Western district it averages 19 per cent., in the Eastern 18, and in the City proper only 15·5. In the whole of the metropolis it is 15·71 per cent., and in all England 15·37.

Effects of Seasons.—Taking the average of the last ten years, it is found that of every 1000 deaths in the year throughout the City, 280 occur in the winter season, and only 232 in the summer, the autumn proportion being 251, and the spring 237.

Causes of Death.—The diseases which most contribute to the high mortality of old persons in the winter are inflammatory affections of the lungs. The disorders which cause the large summer death-rate of children are tabes, marasmus, etc., and diarrhœa. Phthisis is most fatal in spring and autumn, and so are the convulsive affections of children; but zymotic maladies, with few exceptions, are most fatal to life in the summer-time, for they then cause about one-fourth of the total mortality. It so happens, however, that autumn is most favourable for the development of scarlet fever, and winter for small-pox.

Sickness among the Poor.—The sickness returns of pauper practice are indicative of sanitary improvement, for instead of an average of about 9800 cases attended annually by the Medical Officers of the City Union, there were but 4631 upon their books during the year which has lately expired, and the chief diminution has been in preventable zymotic disorders.

Water Supply.—As regards turbidity, it was noticed that the water supplied by the West Middlesex, the New River, the East London, and the Kent Companies was always bright and nearly colourless, but that of the other companies was at times slightly turbid, from the presence of finely divided clay of a perfectly harmless character. The regulations made by the companies, and sanctioned by the Board of Trade, for a constant supply of water, had not, it appeared, disposed the public to avail themselves of it, and therefore the water companies are themselves gradually making provision for such supply.

Sanitary Work.—In the course of the year there were 15,518 inspections of houses, and 1155 of them required amendment in certain particulars. The total number of notices or orders issued for sanitary improvements was 1981.

Unsound and Unwholesome Food.—The Inspectors of Meat and of Markets have seized and condemned nearly eighty tons of meat as unfit for human food. There were fifteen prosecutions and convictions during the year for sending diseased meat to the City markets for sale as food. The penalties ranged from £5 to £20, and in several cases there was imprisonment for a period varying from one to two months.

Retrospect of Sanitary Work in the City.—Dr. Letheby concludes this exhaustive and comprehensive report by the following observations:—The sanitary duties of the City are very multifarious, and they have largely increased since he had the honour—nineteen years ago—of being elected Medical Officer of Health, for it has devolved on him to co-ordinate the duties of his office, and to extend them as occasion arose. It has also been his duty to advise and report on a multitude of sanitary subjects, and many other such cognate matters, all of which have been the subjects of special reports, which have in most cases had a wider application than was originally intended, from the circumstance that the sanitary practice and experience of the City have frequently been accepted as the standard for comparison. This was a gratifying recognition of the value of their sanitary labours, and he alluded to it in order that he may, in this the last act of his present official connexion with the City, thank the Commissioners for the assistance and encouragement which they have invariably afforded him in the discharge of his onerous and important duties.

THE WEEK.

TOPICS OF THE DAY.

A CURIOUS scene took place at the last meeting of the Kensington Board of Guardians. It appears that a Committee had been appointed by that body to visit the patients of that parish who were in Colney Hatch Asylum. The report of the Committee was submitted to the meeting. They saw nine female patients—six were not in a fit state to be discharged; they recommended that two should be removed to Caterham Imbecile Asylum; and reported one to be improved, and in apparently a sane condition. It appeared that this patient left the Asylum last Christmas, and joined her husband and children, but, in consequence of her beating the children, her husband took her back again at the end of the month. Dr. Marshall thought she might now leave the Asylum if her husband was willing to take her home. The Committee recommended that the husband be summoned before the

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guardians to ascertain his wishes on the subject. The Committee saw nine male patients, and did not recommend the discharge of the first five on the list; the other four, however, they say, seem to have been sent to the Asylum for having acquired drunken habits, and, although they may have been mad from drink, the Committee state they found them sensible in their remarks and replies to questions, and certainly not properly classed under the term "lunatic." They were unanimously of opinion that not one of these men ought to have been sent to the Asylum; they were cases for the police-court, and they should have been punished by commitment to gaol. The report then contains some observations on the importance of not mixing drunken patients with lunatics, as such a step was calculated to produce lunacy in persons of drunken habits rather than improve their condition. The superintendent had informed them "that these patients were sane when kept from drink, and that too many similar cases were sent to the Asylum." The Committee suggested that steps should be taken to overlook and govern the acts of the officials who have the power to send lunatics or supposed lunatics to asylums. The care of the lunatic or supposed lunatic should not be left solely to their medical officer and the magistrate "who signs the order in his magisterial capacity." The Committee further suggest that for the future the patient should be examined by a committee selected from the guardians, who should make full inquiries into the case before the patient is removed into the Asylum. They also suggest that no extra fee be paid to any outside medical officer for signing an order for removal, but that an annual payment be made independent of the number of orders that may be signed. The following passage in the report is so remarkable that we quote it entire:—

"The Committee consider due consideration has not been paid to some of the present patients in the Asylum, that the *liberty* of the subject has been infringed upon, and that *delirium tremens* has been in an off-hand way put down as confirmed *madness*, and the patient at once placed in confinement amongst lunatics of an aggravated form; whereas *such persons would have speedily recovered if removed to a prison cell*, and kept from drinks, and furnished with *hard labour for a week or two*, and thus the ratepayers would be saved the cost of maintenance of many lunatics."

The adoption of the report having been moved and seconded, the following discussion took place:—Mr. Hanson said he agreed with all that was said as to the drunken cases, but he did not see how the guardians could interfere with the magistrates as the law now stands. He moved that the report be referred back to the Committee with a view to some petition being brought to the notice of the chief authorities, and that the particular cases mentioned receive attention at once. This was agreed to. Mr. Gibbons said it was the most important report that had been presented since he had been a member of the Board, and he moved that the magistrates be called upon to furnish particulars of each case. Mr. Masaroon said the guardians ought to do nothing of the kind, and he was sure there were many more lunatics out of asylums than sane men in. The next speaker said there was a great deal of difference between being unlawfully sent and improperly detained, and that during the last three years the guardians had been congratulating themselves on having emptied the licensed houses of Kensington pauper lunatics, and that the belief was that the county asylums were only too glad to discharge patients; that none of the parish medical officers signed certificates as such, but were called in by the magistrate, who might call in his own medical attendant if he chose; and further, that the resident medical officer never signed certificates in lunacy, and the relieving officers had special duties and responsibilities in the matter. The chairman moved that a copy of the report be sent to the Lunacy Commissioners. This was ordered to be done, and the clerk directed to obtain particulars of the cases from the several relieving officers. Mr. Durrant said the Guardians ought to visit the asylums oftener, and he moved that the Local Government Board be asked to sanction the usual payment for expenses of such visits. This was carried, and the subject dropped. We give the Committee full credit for having acted in framing their report on honest and humane principles, but we would remind them that when properly carried out the provisions of the Lunacy Act are competent to meet not only the merits of such cases as those to which they refer, but cases of real or supposed lunacy. The Vestry acted wisely in sending a memorial to the Commissioners in Lunacy (who will doubtless feel it their duty to make strict inquiries into the subject), rather than to attempt to interfere with or evade the law. Individual cases of hardship may sometimes occur, but we protest against a lay committee, however respectable and influential, being empowered to determine the state of mind of paupers, in opposition to the opinions of competent and skilled persons who have already determined the question. Could such a power be granted to a lay committee it would not be difficult to foretell the serious calamities that might ensue. Some of the most dangerous forms of lunacy are those which elude the vigilance of even those most capable of ascertaining the truth. These would, in many instances, lead a lay committee to most erroneous conclusions. It is due to the authorities of Colney Hatch Asylum to state that the Committee, with the above exceptions, were very much gratified with the manner in which the establishment was conducted.

A correspondent of the *Kensington News* calls attention to the following advertisement, which may be seen daily in the *Telegraph*, and in many other papers at home and abroad:—

DOCTOR IN ABSENTIA.—Professionals, Medical and Clergymen, Dentists, Artists, Authors, Musicians, Engineers, and Promoters of Public Companies, can obtain a learned degree in Absentia from a foreign University by addressing "Medicus," 46, King-street, Jersey.

The correspondent writes:—

"The answer to a letter addressed as above is as follows:—

"'I shall be very happy to obtain for you the M.D. degree from the American University of Philadelphia. The total expenses are £20, inclusive of diploma and certificate of registration. You will, when giving me your instructions, add your christian names in full.

"'Yours faithfully, P. F. A. Van der Vyver.'

"In a subsequent letter, Mr. Van der Vyver reduced his charge to £10. When it is borne in mind that this qualification is publicly offered for sale to any person without the necessity of their attending at the University, am I not justified in asking for some explanation?

"I believe that your correspondence on the above subject was the result of an inquest held upon a man named Leach, who had been attended previous to his death by Dr. Farnden, a gentleman with an American diploma. The widow of the man, writing to a weekly contemporary last week, leads the public to infer that the inquest was part of a conspiracy to crush Dr. Farnden, whom she calls the new doctor. I was recently passing along Silchester-road, Notting-hill, and happening to look into Dr. Farnden's window, I saw with surprise that the diploma which he exhibits there emanated from the 'American University of Philadelphia,' to which the advertisement and letter which I have quoted refer. To say the least of it the matter requires explanation."

We had hoped that this traffic in worthless diplomas had been put a stop to in this country. Are the laws of Jersey incompetent to deal with so important a question?

MEDICAL OFFICERS AND THE LATE ASHANTEE CAMPAIGN.

THE *Army and Navy Gazette* of last week again brings forward the claims of those medical officers who served during the Ashantee campaign, and to whom no recognition has been awarded. No case of greater hardship, it is of opinion, can be recorded than that of Dr. Gore. So early as June of last year Dr. Gore gave much valuable information to the Army

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Medical Department as to the nature of the West African climate, and the measures which might be adopted with advantage to preserve the health of the troops about to proceed to the Gold Coast. In the following July, relinquishing the prospect of a lucrative appointment in India, he volunteered to proceed to Cape Coast, where much sickness prevailed and hard work had to be performed. Appointed sanitary officer to the expedition by Sir Galbraith Logan, in consequence of the very high opinion expressed by the assessors upon his essay for the Alexander Prize and gold medal, and performing all the preliminary sanitary surveys previous to the reception of the white troops, he is now, after having served more than four months on the Coast, received three wounds in action, and behaved most gallantly at Dunquah and Quaminata, consigned to unmerited neglect, whilst others who had not half his service on the Gold Coast are decorated and promoted. Scarcely worse is the case of Dr. Atkins, who was entitled to count longest service amongst the surgeons engaged in the war, he having landed at Cape Coast Castle on October 4, and remained until the close of the war.

We must confess that we were surprised to find Dr. Gore's name omitted from the list of those who were to be rewarded. We think we are correct in stating that he was the only medical officer wounded throughout the campaign, and although the wounds were received in the operations which took place on this side of the River Prah, they should not therefore have been lightly passed over, as the fighting before the arrival of the main body of white troops was both stubborn and severe. Dr. Gore's wounds, in fact, may be said to have been his ruin—they necessitated his return to this country; and in the stirring events which chronicled the fall of Coomassie, his absence caused all his earlier services to be forgotten. Is there no second crop of honours available for the modest few who, in the excitement of the first distribution, have been somewhat unkindly forgotten? We regret to have to record the death of Surgeon-Major Meyrick L. Burrows, which took place at Cape Coast Castle on April 19 last. Mr. Burrows had been for some time invalided from the effects of the West African climate, but on the outbreak of hostilities he eagerly sought to be despatched on duty to his old station. His return to the Coast, however, was premature, and he succumbed to a sharp attack of fever contracted in carrying out the medical duties of the station.

It is, we believe, the intention of the colonial authorities to organise Houssa regiments for the protection of the Gold Coast; and as the report on this portion of the force which accompanied Sir Garnet Wolseley to Coomassie was by no means unfavourable, the idea is likely to be a good one. Such an arrangement would at any rate dispense with the presence of the West India regiments on the West Coast of Africa; and the late experience acquired incontestably proves that the West Indian black is nearly, if not quite, as susceptible to the effects of the pestilential climate as the European.

The invalids at Netley received there from the Ashantee campaign are gradually being discharged to their several regiments. Few bad cases now remain, but the insidious nature of African fever is very apparent in many of those who served on the Coast, prostration being the prevailing form. Captain Sir John Glover, G.C.M.G., and several other officers, have been ordered to the South of France, but it will be some time before many of them thoroughly recover from the effects of even so short a tour of service in perhaps the very worst climate to be found upon the whole globe.

THE JOHN MURRAY MEMORIAL.

A MEETING of the Committee of the Murray Memorial Fund was held at the Middlesex Hospital on Thursday, June 11. A bust of the late Dr. John Murray has been executed in marble by Mr. Durham. This is to find a home in some part of the Middlesex Hospital building, either of the Hospital itself or of the school attached thereto. Although so young a man, Dr. Murray had done good work in both—in the former as an Assistant-Physician and Physician to the Out-Patient Throat Department, and in the latter as a lecturer and Dean of the College. The purpose of the meeting was to take proper steps to present the bust to the governing body of the Hospital, with whom, of course, it will rest as to where the bust shall be placed. The surplus sum in the hands of the treasurer goes, we believe, towards the Aberdeen bursary, which will also be in connexion with the school of the Middlesex Hospital.

RECRUITING FOR THE ARMY.

AN appendix to the General Order on Recruiting has lately been issued from the Horse Guards, and all commanding officers are requested to give it the widest possible circulation. It contains the following regulations:—

"Able-bodied young men who are capable of bearing arms, and certified by the examining surgeon to be in all respects fit for the service, may enlist for the infantry, for which they must not be under eighteen nor over twenty-five years of age; minimum height, 5 feet 5 inches, with a chest measurement of 33 inches between 5 feet 5 inches and 5 feet 8 inches; over 5 feet 8 inches, 34 inches; and over 5 feet 10 inches, 35 inches. Recruits will, according to present arrangements, be taken for the 60th Regiment and Rifle Brigade who measure in height from 5 feet 4½ inches to 5 feet 7 inches, but they must measure 34 inches across the chest. Recruits for cavalry regiments are taken at the same age as those for the infantry. Height—heavy, 5 feet 8 inches to 5 feet 11 inches; medium, 5 feet 7 inches to 5 feet 9 inches; light, 5 feet 6 inches to 5 feet 8 inches. Chest measurement—under 5 feet 8 inches, 33 inches; under 5 feet 10 inches, 34 inches; 5 feet 10 inches and over, 35 inches. Recruits desirous to enter the Royal Artillery as gunners will be taken between the ages of eighteen and twenty-five. Drivers for the Royal Artillery must be nineteen before they are enlisted, but artificers may be taken at seventeen. The height and chest measurement of recruits for the above are:—Gunners: From 5 feet 7 inches to 5 feet 8 inches in height, chest measurement 33 inches; 5 feet 8 inches to 5 feet 10 inches, 34 inches; 5 feet 10 inches and upwards, 35 inches. Artificers, if tested, 5 feet 5 inches and upwards, chest measurement 33 inches. Drivers used to horses, 5 feet 4½ inches to 5 feet 6½ inches, and 35 inches chest measurement. Recruits for the Royal Engineers will be taken between the ages of eighteen and twenty-five, but drivers cannot be enlisted until they are nineteen. Height—Sappers, 5 feet 6 inches and upwards; but good mechanics, artisans, and tradesmen likely to be useful to the corps, may, on the approval of the Deputy Adjutant-General, Royal Engineers, be taken without reference to height; chest measurement to be the same as for cavalry. Drivers—height from 5 feet 4½ inches to 5 feet 6 inches, minimum chest measurement 35 inches."

A discussion on the subject of recruiting for the army took place in the House of Lords last week, when Lord Sandhurst moved for certain returns. The opinions expressed by the various speakers can scarcely be looked upon as reassuring. It is true that certain members of the present Government announced that all necessary information for a full consideration of the subject was being collected. Meanwhile, it was not denied that, at the young age at which recruits now joined the ranks, they were physically weak, and unfit to undergo the hardships and fatigues of a real campaign. The Commander-in-Chief himself bore testimony to the evil effects which had resulted from the introduction of the short-service system, but was averse to Parliamentary interference, on the ground that any prospect of change unsettled the minds of men in the classes among which recruits were obtained; and Lords Hardinge and Strathnairn advocated a return to the pension system, which was one of the great inducements to enlistment. It is to be hoped that the present Government will not set aside this most important subject, which will one day be of vital interest to the country. Compulsory service being regarded as impracticable, it should be the aim of legis-

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lation to make our military service not only popular, but eagerly sought after by the proper sort of recruits. The suggestion that the militia should be made the great training school for the army, whence the main portion of its supplies could be drawn, was not favourably received, and many practical objections were urged against it. Nevertheless, we trust that the example of Lord Sandhurst in calling attention to the defective nature of our present system of recruiting will be followed by many other high military authorities who have their country's good at heart; and if so, when the importance of the subject has been thoroughly established, we may hope to see some remedy adopted by means of which our army may once more recover the muscular predominance which, in the present day, it has most assuredly lost.

THE ROYAL COLLEGE OF SURGEONS.

Two matters of great public interest connected with this institution are now before the profession. The one is the recent examination for the Fellowship, the other the approaching election to the Council. As regards the examinations, they have been characterised by an unprecedented number of rejections, and this alone has given rise to many surmises as to the exact cause. The general impression seems to have been that the standard had been suddenly and considerably raised, and that, as a consequence, many more than usual had been rejected. But there is another explanation on the face of the matter, which should not be overlooked, that rests on the numbers who presented themselves. Of late years it has become increasingly the practice for men who are yet students, and who have passed no other examination whatever, to present themselves for the primary examination for the Fellowship. The Fellowship is, and should be, more or less of the nature of an honorary qualification, and it is not advisable that it should take the place of Membership. Indeed it would be, to our thinking, a fairly good rule to lay down that no man should be admitted to the Fellowship examination who had not already passed, at least, the first examination for Membership. It is quite absurd for men who are hardly, if at all, qualified to pass the examination for the latter, to present themselves for the former, yet that seems in more than one instance to have been done. The College examinations are open to all teachers, and it would be a good thing if many, especially of the younger members of our teaching staffs, were to visit these regularly; they would thereby acquire a more accurate knowledge of the kind of questions asked, and of the knowledge required, than is otherwise possible for them. In most cases their experience on these points is either individual or second-hand.

The coming election of Councillors will determine a question which is of some interest to the profession generally. The Council is a body which exercises a most material influence over the general medical education of the country, and its constitution is, therefore, a matter of general importance. The question is this—Shall the rule of retirement be absolute, or shall exception be made in the case of those whose experience and business qualities are of unusual advantage to the College? Mr. Hilton has reaped all the honours the College can bestow upon him, but, at the same time, it is said, it can hardly afford to dispense with his services. It cannot for a moment be contended that any one of those who are fellow-candidates could in experience and knowledge of College business replace him; but still, upon the whole, the rule is a good one, that men should retire when they have attained all the honours incidental to the position of Councillor. It is, therefore, for the Fellows to decide which rule they will adhere to and be governed by. There is one thing we should mention which may influence some. Mr. Hilton, as an examiner, has been distinguished rather for the *fortiter in re* than the *suaviter in modo*, and more than one has complained of the fashion in which they have been treated by him. But Mr. Hilton definitely resigns the post of examiner, whether re-elected to the Council or not; so that no man need be influenced by the prospect of Mr. Hilton continuing in office as examiner. As regards the other candidates, we take it that Mr. Marshall is sure of re-election, having been seated only one year; and then comes the question of provincial Fellows. Both Mr. Baker and Mr. Hussey are personally known to us, and both we esteem most highly as good surgeons and honourable gentlemen. Mr. Baker, having recently been President of the British Medical Association, is undoubtedly entitled to the support of his fellow-members, and will doubtless receive a large measure of it. But it must not be forgotten that, if provincial Fellows have their rights, members of Council have also important duties besides mere attendance at Council meetings; and these duties country members find it hard to fulfil.

THE CANDIDATES FOR SEATS IN THE COUNCIL OF THE ROYAL COLLEGE OF SURGEONS.

The time having expired for sending in the nomination papers of candidates for seats in the Council of the above institution, we are now enabled to submit to the Fellows of the College, in chronological order, the names of the candidates seeking their suffrages.

There are three vacancies caused by the retirement in the prescribed order of Messrs. Hilton and Marshall, and the resignation of Mr. J. F. South; these gentlemen, however, offer themselves for re-election. The other candidates are Messrs. Edward Law Hussey, Henry Smith, and Alfred Baker.

It is only due to Mr. Hilton to state that had he consulted his own feelings he would have declined being put in nomination for re-election, but, yielding to a great pressure from many friends of the College, who feel that the loss of so much valuable experience would be severely felt at the present moment, he has consented to leave the result to the Fellows of the College, and it is thought with a good chance of a favourable result.

That Mr. Marshall (who was elected only last year) will be re-elected on this occasion will be only due to his high professional and social standing; as a member of Council, Court of Examiners, and of committees, we are informed he has been most indefatigable in these several positions.

Mr. Hussey, of Oxford, who is a Fellow by examination, is Senior Surgeon to the Radcliffe Infirmary, a member of several learned societies, is the author of "Accidents and their Treatment," and of many papers in the medical and scientific journals. His date of Fellowship is August, 1849. St. Bartholomew's claims him as a pupil.

Mr. Henry Smith, of Wimpole-street, is also a Fellow by examination, which degree he obtained at the same time as Mr. Marshall—viz., December, 1849. He is Surgeon to King's College Hospital, where he also pursued his professional studies with signal success, and is a valuable contributor to the advancement of surgical science. His writings on excision of the hip- and knee-joints alone have materially helped to establish these operations in conservative surgery; a long list of his many works will be found in the "Medical Directory." He has delivered the Lettsomian Lectures, and is a member of many learned societies at home and abroad.

Mr. Alfred Baker, of Birmingham, is a Fellow by election, October, 1852, Senior Surgeon to the General Hospital, and formerly Lecturer on Surgery in Sydenham College. To the *Medico-Chirurgical Transactions* he contributed "A Case of Intestinal Obstruction treated successfully by opening Descending Colon in Left Loin"; and "On the Difficulties of Hernia," and "On Pyæmia," in the *British Medical Journal*. He is surgeon and consulting surgeon to several local institutions.

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It will be seen that one provincial surgeon who stood an election last year is opposed by another on the present occasion, who has already received large numbers of promises, both metropolitan and provincial.

The election will take place on Thursday, July 2, in the library of the College of Surgeons.

APPEAL TO THE BENEVOLENT.

An appeal is earnestly made on behalf of a medical man, Mr. S. Orby Carey, who is suffering from paralysis. Obliged, after years of laborious work in South Australia, to give up his practice ere he could make provision for a time of need, and to return to England for treatment, he now lies in humble lodgings, suffering much, both mentally and physically, and wholly dependent on charity. He has no relatives able to assist him, or even to offer him a home, and, from years of absence, but few friends. His family—a wife and three children—are temporarily provided for; he therefore only asks that assistance may be given that he may be enabled to continue treatment. This further appeal is made with the desire that he may be able to decide whether he can arrange for another year's treatment, failing which he will be obliged to accept an offer now made of a free passage back to the colony, when he feels all chance of recovery would be lost, and no ultimate prospect remain but that of ending his days in the Destitute Asylum there. Reference permitted to B. E. Brodhurst, F.R.C.S., 20, Grosvenor-street, W.; F. J. Toulmin, F.R.C.S., 36, Thurloe-square, S.W.; and subscriptions received by Calvert Toulmin, Esq., 69, Inverness-terrace, Hyde-park, W.; Dr. Gelston, Limerick; Dr. Hobart, Cork; or Mr. Carey himself, 12, Sheldon-street, Paddington, W. Amounts already received:—British Medical Benevolent Fund, £20; Irish Medical Benevolent Fund, £15; anonymously and otherwise (acknowledged), £17 17s.

THE NAVAL MEDICAL SERVICE.

Mr. Ward Hunt, the First Lord of the Admiralty, received on Wednesday a deputation respecting the Naval Medical Service. Amongst others present were Sir W. Fergusson, Dr. Paul, Mr. Lord, Mr. A. Durham, Dr. Dixon, and Dr. George Johnson. Mr. Ernest Hart introduced the subject, and laid before the right hon. gentleman a list of twenty-two points upon which it was considered immediate action should be taken, in order that the Service might be rendered more popular than it is at present. Amongst them were the rank which surgeons took in the Royal Navy upon entering, the term of service, pensions and retiring allowances and the general question of retirement, an adjustment upon a more equitable footing of the pay of senior medical officers on tropical service, and other matters. Mr. Harvey said that he had gone carefully into the whole of the suggestions, which, if carried out in their entirety, would not cost more than £20,000 a year. Dr. Dixon, whilst complaining of the unpopularity of the Service, gave the present Government much praise for the prompt manner in which the naval officers engaged in the late war had had their services recognised. Mr. Durham, of Guy's Hospital, bore testimony to the unpopularity of the Naval Medical Service; and he mentioned as an evidence of that unpopularity that during the last twenty years, although Guy's had sent out between 1700 and 1800 men, certainly less than half a dozen of them had gone into the navy. If it were desired to get a better class of men as navy surgeons, the inducements offered must be very different from what they were at present. Mr. Ward Hunt, in reply, said that the position of the medical officers of the navy was under the consideration of the Government at the present time, and even without the assistance afforded by the deputation the question would have been gone into with great care. Lord Guildford was charged to consider the question, and he (Mr. Ward Hunt) was glad, therefore, that he had been present that day to hear what the deputation had to say. He could only say now that every suggestion thrown out would be fully considered. The deputation thereupon thanked the right hon. gentleman, and withdrew.

CONVERSAZIONE AT THE ROYAL MEDICAL AND CHIRURGICAL SOCIETY.

On Tuesday evening a *conversazione* was held at the rooms of the Royal Medical and Chirurgical Society. The guests, who were very numerous, were received by the President, Dr. C. J. B. Williams, and the honorary secretaries. The rooms and library contained many objects of great interest. Amongst the most noticeable were a series of twenty etchings by Mr. Seymour Haden; etchings by Mr. J. L. Propert; water-colour drawings and etchings by Sir H. Thompson; and water-colour drawings by the late Mr. Solly. From the Society's collection there were medical caricatures, medical portraits, and rare and early printed books. Sir H. Thompson exhibited "human ashes after cremation," as did also Dr. Barratt. Microscopes, thermometers, galvanometers, and stereographs were in abundance. Specimens of pharmaceutical preparations were furnished by the leading pharmaceutical chemists, and surgical, acoustic, and other instruments by makers and others. Some very interesting pen-and-ink sketches of various forms of heart disease, made in 1836 by Dr. C. J. B. Williams, were shown. The evening was altogether a most enjoyable one, as well as most successful in every way. Creature comforts abounded, and the company did not separate until a late hour.

CHANGES AT CHARING-CROSS HOSPITAL.

Within the last few years the changes at Charing-cross Hospital have been numerous, and promotion, from various causes, has been unusually rapid. The latest instance is the advancement of Dr. Green to be full Physician, *vice* Dr. Headland, the Senior Physician, who retires, owing to ill-health, which meantime precludes him from pursuing his professional avocations. The promotion, if rapid, is not the less amply deserved by Dr. Green. Nor is it in the staff alone that changes have taken place: the Hospital is rapidly undergoing enlargement, and the school premises are equally undergoing improvement. Three large laboratories for physiological work are in course of erection, which will give ample accommodation for the pursuit of this important subject. A new library is also in course of erection, the present one being about to be converted into a dispensary. With such wise liberality on the part of the lay-governors, and the energy which comes of a young staff, much may be expected of this Hospital in the future. In another column we publish some extracts from the excellent address delivered by Mr. Beresford Hope on the occasion of distributing the prizes to the successful students at the Hospital, which we think are well worthy of the attention of the profession at large.

SPREAD OF INFECTIOUS DISEASE.

The following advertisement appeared in the second (or agony) column of the *Times* of Tuesday last:—

"Should this meet the eye of the lady who got into the 12.30 train at New-cross Station on Friday, May 15, with two boys, one of whom was evidently just recovering from an illness, she may be pleased to learn that three of the four young ladies who were in the carriage are very ill with the measles, and the health of the fourth is far from what her relations could desire."

This is a very mild reproof for the serious evil that has been inflicted on the young ladies. It was surely incumbent on the mother of the boy "recovering from illness" to have warned her fellow-passengers of the risk they incurred by travelling in the same compartment with him. Such wilful selfishness as

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portrayed by the lady in question we hope is an exceptional occurrence. If persons suffering from infectious diseases are to travel, as in the above instance, with others, more diseases will be engendered than health restored by trips to watering-places or other health-resorts.

THE HOSPITAL FOR WOMEN, SOHO-SQUARE.

We heartily commend the following to the notice of those who believed that the Soho-square institution was about to undergo radical reformation. Can the Ethiopian change his skin, or the leopard his spots? A special general meeting of the subscribers and friends of this institution was held at the hospital on Wednesday, last week, for the purpose of confirming the decision at the recent annual meeting, that a third of the committee should place their seats every year at the disposal of the subscribers. Sir Rutherford Alcock occupied the chair, and the secretary having read the notice convening the meeting, Captain the Hon. F. Maude, R.N., moved that the following gentlemen, who retired by rotation, should be re-elected as members of the committee for the ensuing year:—Rev. E. Auriol, the Marquis of Cholmondeley, Mr. W. Castle Smith, Mr. James Watson, and Sir. J. W. Alexander. The motion was unanimously agreed to.

PUBLIC HEALTH (IRELAND) BILL.

On Friday week, the 5th inst., deputations on this Bill from the King and Queen's College of Physicians, and from the Conjoint Legislation Committee for Ireland, were received by Sir M. Hicks Beach, Bart., Chief Secretary for Ireland. Several members of Parliament, including Dr. Lyon Playfair and Dr. Lush, took part in the proceedings, and the Parliamentary Bills Committee of the British Medical Association was also present. We have reason to believe that several important amendments were at once adopted by the Chief Secretary, while he promised to give others his most attentive consideration. Next week we hope to return to the subject at greater length.

ST. MARYLEBONE GENERAL DISPENSARY.

At a meeting of the Board of Directors, held on June 3, to consider the proposals of a special sub-committee for placing the above institution on the provident system, it was resolved to place this Dispensary forthwith under a partially provident system for a six months' trial, and, if favourable at the end of that period, to establish the provident system permanently. All patients without letters of recommendation have now to pay a stated sum at the Dispensary.

NEPHROTOMY FOR RENAL CALCULUS.

In the *Arch. für Klin. Chir.*, Bd. xvi., 1874, Hft. 1, is an account of the removal of the left kidney for renal calculus by Dr. G. Simon, of Heidelberg. The patient, a woman, thirty years of age, had suffered for twelve years from very severe renal colic on the left side, and the urine, which was normal during the attack, contained afterwards epithelium, blood-clots, fatty granules, and stones sometimes as large as cherry-stones. The left kidney was tender, but no enlargement of it could be felt, though the patient was extremely thin. Dr. Simon came to the conclusion from these facts that there was calculus of the left kidney, and that the right was healthy, and he accordingly determined to remove the former. This he did through an incision in the lumbar region. Though no stones could be felt when the kidney was exposed, eighteen to twenty small ones, varying in size from that of a linseed- to that of a cherry-stone, were found in the pelvis and calyx on opening the organ. A ligature was put round the stump to prevent hæmorrhage, and the healing went on for three weeks perfectly satisfactorily, when, after an examination of the wound with the finger, a rise of temperature occurred, which was followed by a rigor. The symptoms, however, passed off, but after two days the patient ate some unripe fruit, and was then seized by a rigor which lasted half an hour. Diffuse peritonitis and double pleurisy followed, and the patient died on the thirty-first day after the operation. The amount of urine passed on the day following the removal of the kidney was 590 cubic centimetres, and on the second day 800 cubic centimetres. At the autopsy the right kidney was found to be rather smaller than normal, but in all respects healthy. The case shows how comparatively easy it is sometimes to diagnose a calculus of the kidney, and how simple may be the removal of the affected organ. Death in this instance resulted, not as a direct sequence of the operation, but from an independent and secondary complication.

HACKNEY WORKHOUSE INFIRMARY.

The ratepayers of Hackney held a meeting last week to consider the scheme of the Local Government Board for a complete separation of the Infirmary from the Hackney Workhouse. The proposed separation would, it was stated, involve an expenditure of £10,000 and an annual cost of £2000. The guardians had resisted the scheme, but had received a peremptory order to carry it out. This was made known at the meeting, and resolutions were passed approving the conduct of the guardians in the matter.

SEWAGE OF RICHMOND.

It seems, after thirteen years' consideration of the subject, the Richmond Vestry are as far off as they were from any decision on the best means to divert the sewage from the Thames. Mr. Giles, a member of the Vestry, announced the above fact at a meeting of the Vestry on Tuesday last. Who is to blame for such a prolonged unsatisfactory state of such an important question? A heavy responsibility rests somewhere.

MORTALITY IN LONDON.

During last week the deaths of 1257 persons were registered in London, which was 163 below the average; 44 of these occurred from measles. From the seven principal diseases of the zymotic class 161 deaths were returned, against 138 and 158 in the two previous weeks. There was no death from small-pox.

SMALL-POX IN ABERDEEN.

Small-pox is prevalent in Aberdeen. About a month ago, when the last return of the local authority was made, sixteen cases had been admitted into the hospital, and four of them had been fatal. Subsequently, about thirty additional cases have been admitted, but these were of a milder type. Some other deaths have occurred, and it is reported that numbers of cases are under treatment by private practitioners.

PARLIAMENTARY.—THE KING AND QUEEN'S COLLEGE OF PHYSICIANS, IRELAND—THE APOTHECARIES' ACT AMENDMENT BILL.

In the House of Commons, on Thursday, June 4,

Sir M. H. Beach, in reply to Mr. Dunbar, said that no application had been made to the law officers of the Crown for a supplemental charter of the King and Queen's College of Physicians, Ireland, to alter the mode of electing Fellows, and to institute a new order to be styled "Members of the College." He could not state, therefore, whether an opportunity would be given to the House of expressing an opinion on the proposed alterations.

On Wednesday, June 10,

Sir J. Lubbock and Mr. Stansfeld were to move for clauses in Committee on the Apothecaries' Act Amendment Bill, and Mr. Moore for returns of all counties in Ireland in which public analysts have been appointed.

Small-pox is alarmingly increasing in virulence in the town of Preston.

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SANITARY MATTERS IN THE SOUTH OF ENGLAND.

(*From a Correspondent.*)

An enforced holiday, consequent on severe illness, has enabled me of late to pay a round of visits in the South of England, and to make myself familiar with the sanitary arrangements of the small towns in that part of the world; and I must say that there is a wonderful gap between their condition and that of London, where our water seems to come of itself from the water companies, and where all our care is to have our drains trapped and connected with the main sewer.

In three out of four towns which I have visited the water is derived from wells, sunk into the chalk or gravel, in the petty yards and gardens which are attached to the houses. In two of these towns there is a water company, but it supplies those only who desire it—the rest get their water from the old sources. "What will you drink?" said one of my kind entertainers at supper just after my arrival. "A glass of water," was my reply. "Oh!" said my host, "I never recommend our water till it has been boiled; there is some capital table beer, and there's soda-water, and light wine, but as for raw water we never drink it."

I saw from my host's manner that there was something unpleasant connected with water, so I dropped the subject till a more convenient season.

For the relief of certain natural wants I was directed to an ancient building in the garden, veiled by a shrubbery, which after all seemed only to render it more conspicuous. All over these towns I learned there was, till quite of late, attached to every house such a temple, with a huge vault underneath, in which the excreta of the inhabitants were stored for years and years. Many of these places remain still, majestic in stink. Some of the owners, touched by a glimmer of sanitary principles, had cut them down into earth-closets, in which the excreta fell on a heap of dry earth, a box of which besides stood close by, with a small shovel, so that more earth might be cast in on the top of the offensive matters. Of such arrangements my verdict is, that though not so free from stink as they might be, yet that for ordinary working they are infinitely better than an old privy or an ill-kept water-closet.

Other people, more fastidious, had erected water-closets within their houses, and having no other outlet for the sewage had laid it on into the old privy vaults, whence it might soak away if it could, or if not, must be emptied periodically. Now, whilst the old privy vaults were in their original use, they were undoubtedly nasty and stinking enough, but, as very little liquid found its way into them, there could be no very widespread contamination of the earth and water. Very different, however, was the case when the abundant sewage from water-closets began to be poured into them. Then it was that my host began to drink no water that had not been boiled—more especially as one of the neighbours had been told by a builder that if ever the cesspool of the water-closet became too full he need only work his pump; for that if he lowered the drinking-water in his well the fluid in the cesspool would sink too—a fact, the import of which is plain and disgusting enough.

I have seen, in the underground cellar of an old house in one of these old towns, two pipes not six feet apart, one leading up from the well, the other down to the cesspool.

From all which it is clear, first, that in this year 1874 large numbers of Englishmen use filtered sewage for drinking and cooking; secondly, that such sewage *per se* need not produce typhoid or cholera, though woe betide the inhabitants if typhoid or cholera once be introduced amongst them; thirdly, that it seems frivolous to make a fuss about sewage farms, and the possible mischief they may do, considering how the population of undrained towns partake of sewage already in the air they breathe and the water they drink; lastly, that any other beverage seems wholesomer than a glass of water neat from the pump.

The whole tendency of what I have seen is that the dry-earth system—although not free from objection—is, on the whole, the best for small towns and villages where the houses are scattered and intermixed with plots of garden ground. It is not every place where water can be had in sufficient abundance for water-closets, or where an outlet can be provided for huge streams of sewage collected in a main sewer. The benefit of the earth system is that it forbids accumulation, and that the excreta are rapidly returned to the earth, and in quantities so manageable that they may be disposed of, if buried in quite a small garden of any kind of soil.

I have seen in my tour wonderful crops of potatoes, cabbages, and beet-root raised on ground where the earth from closets had been buried. Equally effective and convenient, on a *porous soil*, is the plan of conveying water-closet sewage in loose, unjointed pipes amongst plantations or growing crops. But this cannot easily be done on a clay soil; for which the dry-earth system seems best.

I must not omit to say, that some persons who have lately introduced water-closets have boldly turned the sewage into a roadside ditch, where it flows slowly along, emitting a horrible stench. The owners of the adjacent land don't like this, and are trying to suppress it; but it strikes me that there must be mighty little difference between this open ditch and a "well-ventilated sewer." For if a sewer, however constructed, and of whatever depth, is freely to discharge its gases into the air, it is virtually and functionally an open ditch.

I will wind up these jottings with an extract from the *Folkestone Express* of May 16, which will vindicate the truth of all I have said, though Folkestone is a town I have not visited. The article is headed "Shocking Death of a Young Man," and contains a report of a coroner's inquest:—

"J. Minter, Esq., coroner, held an inquest at the Town Hall touching the death of Charles Sutton. Mr. Henry Unwin deposed: I am a builder living in Folkestone. I received an order from Miss Harvey to empty a cesspool on her premises, Cheriton-road, at the back of Captain Brockman's premises, Victoria-grove. It is a brick cesspool, eighteen feet deep from the neck. It is domed over, and diminishes to an opening two feet in diameter. The opening is covered with York stone. The drains in the house were found to be stopped, and on examining the cesspool I found it full. About nine o'clock on the evening of Tuesday last I took the stone off the top of the cesspool, and commenced emptying it by means of pails and a rope, the men standing on the neck of the cesspool. I remained there until twelve o'clock, and then left. The height from the spring of the dome was about two feet six inches; the top would be safe for half a dozen people to stand upon. The cesspool is about 130 feet from the house. I opened the same cesspool about thirteen years ago. The Coroner: I wonder whether there is a pump close to the cesspool. Mr. Uriah John Unwin deposed: I am a bricklayer and son of the last witness. I was assisting in emptying a cesspool belonging to Miss Harvey on Tuesday night. My father went away about twelve o'clock and left me, deceased, and George Knight to complete the work. We had lost a pail in the cesspool, and deceased was standing on the earth by the side showing a light, and as we drew the ladder up out of the cesspool, a portion of the earth upon which deceased was standing gave way, and he slipped down feet foremost; I tried to grasp him, but only succeeded in getting his cap, and he went into the cesspool. Mr. Richard Mercer, M.R.C.S., deposed: I was called about half-past two on Wednesday morning to deceased, and found him lying in the yard covered with soil from a cesspool. Life was quite extinct. There is no doubt that deceased was suffocated from being immersed in the cesspool. He could not live five minutes after he fell in. Mr. Farley: I should like to waken the Corporation up. Mr. Brooks: The cesspool has no business there at all. The Coroner: No doubt you are surprised to find a large cesspool like this there, after all the expense the town has been at in drainage. Mr. Farley: Does the law allow such a cesspool to exist? The Coroner: That is for the Town Clerk to advise you upon. The inspector should go round, and ascertain where there are any of these cesspools. The jury then returned a verdict of 'Accidental death.' Mr. Unwin wished to say that deceased was one of the best labourers he ever had, and he could give him the best of characters for honesty, sobriety, and industry."

I will only add one word. Poor Charles Sutton died, let us hope, without much suffering. How many "honest, sober, and industrious" young fellows in the prime of life fall victims to these criminally filthy and negligent sewage arrangements, after three or four weeks of the intense suffering of typhoid fever?

It is reported that cholera has broken out in Upper Silesia, near the Polish border, and attacked the colliery districts with unusual virulence.

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THE INTERNATIONAL EXHIBITION, 1874.

Exhibition of Hungarian and Transylvanian Wines—(*Continued*).

In the collective Exhibition of Hungarian Wines, the Tokays are almost worthy of a notice by themselves. These wines are so full, rich, and powerful, sweet, yet not disagreeably so, that they occupy a place apart from all others. In this Exhibition many different brands are to be seen, some of which are termed "dry," some called "sweet." These wines, as most people know, are unpressed (*Ausbruch*), but procured by the mutual pressure of the ripest grapes, consequently only a very limited quantity is procured from a large quantity of grapes, and hence its great value from a money point of view, apart altogether from its specific qualities. The largest and finest collection in the Hungarian exhibition of wines of the Tokay class is that of Dr. Julius Szabo, a wine grower at Mickolcz, who is esteemed the best producer of Tokay in Hungary, though in certain respects he is outshone by Caroline Princess Bretzenheim, who also sends some very fine samples. Dr. Julius Szabo's series is, however, so good as to be unique in the Exhibition, and certainly very well worthy of public attention. Unfortunately the heat of the cellars in which the wines are shown has now become exceedingly great, and some of the very best wines are spoiling, and may have to be removed. This is greatly to be regretted; and certainly the exhibitors, who have taken the trouble to come from afar, and to spend much money, deserve better treatment at the hands of the Commissioners than to be relegated to such a position as they now occupy; whilst the public have to submit to a poll-tax of sixpence a head before they even reach the Wine Exhibition. If you go to the Exhibition purposely to examine the various specimens of wine shown, you are something in the position of a visitor to Madame Tussaud's who goes there solely to see the fearful sights of the "Chamber of Horrors." You pay a shilling to go to any part of the Exhibition you don't want to see, but to reach your destination you must pay over again.

Besides the collective exhibition of Hungarian wines, there is one of samples sent by a private firm—F. Lapossy and Co., of Budapest, notable for excellency and moderate price. This is a large firm of wine merchants, who, having the command of capital, have been able to buy up at reasonable prices exceptional growths in exceptional quantity. Some of the wines of the sweet kind exhibited by this firm we had an opportunity of comparing with wines of the same price and something of the same quality from other countries, and no one could help being struck with the grand peculiarity of these wines—viz., the richness in all that constitutes wine, and the absence of a spirituous odour. In the one case the glass rinsed with the rich liquor, emptied and warmed in the hand, sent out a fine vinous odour merely; in the other the presence of spirit in the volatile effluvia was equally unmistakable. One of these wines, a Zierfandler, at 30s., is well worthy of general attention. One of their finest white dry wines is a Bakar, grown by Count Zichy, for whom the firm are agents. This, too, is an admirable wine; whilst of their red wines one of the nicest we tasted was one grown from Portuguese grapes by E. Nedeczky, price 28s. We should add that their London agents are Andlau, Biller, and Stevens, 110, Fenchurch-street, E.C.

PRIZE DAY AT CHARING-CROSS HOSPITAL.

On Thursday, the 4th inst., Mr. Beresford Hope, M.P., gave away the prizes at Charing-cross Hospital, before a distinguished assembly of ladies and gentlemen. The Dean (Mr. Hird) read a most satisfactory report on the condition of the School, and then proceeded to announce the various prizemen (whose names are elsewhere given); after which Mr. Beresford Hope addressed the meeting. He reminded his audience that he spoke under unusual difficulty, for the seat which he then occupied had been filled last year by a man of infinite fertility of mind, of infinite variety of resources, of infinite utility, of infinite sympathy, and of infinite eloquence to clothe that sympathy in words,—his ever to be valued and regretted friend, Samuel Bishop Wilberforce. Well, as somebody must take the place of that most distinguished prelate, he would venture to congratulate the Hospital on its material success recorded in the report which had been read by the Dean. The Hospital stood in a situation that told its own tale. Looking, as this Hospital did, on the great thoroughfare of the Strand, its "lines were cast"—he could not say "in pleasant," but in useful "places." He was sure no one, in or out of that room, would gainsay that he laid claim for the medical profession that, almost disproportionately from any other, it had developed a happy empiricism into a most profound science, and he hoped that in coming ages its successes and its triumphs would be still more extraordinary. Looking at the medical man of the present day and the medical man of the playwright and novelist of the past, the difference was stupendous. A statesman now was a different man from the statesman of a hundred years ago; and if a lawyer of our own times was somewhat like the lawyer of the past, he had more statutes at large on his bookshelves. He recollected, when he was a small boy, brought up in a pleasant town in Surrey, an old gentleman in top-boots being pointed out to him as a doctor who had retired from practice, and he was told it had been that good doctor's habit, on the days when the hounds met, to go round and bleed all his patients for fear they should want him in the course of the day. He was sure his friends here present would not educate them in that line. Medicine was not merely a craft, but a science, which became better or worse in the hands of the man who handled it. No man could enter the profession, if he were a man of intellect, and pursue it for a few years, without doing something to enlarge the science of which he was a votary, and it was, he hoped, impossible that any of the students whom he now addressed could be, like the idle servant, with his talent wrapped up in a napkin. He hoped they would make a return for what they had got that day in developing medical science for the benefit of their fellow-creatures. He would not ask them to rush into print for the mere purpose of seeing themselves in print, but if anything occurred to them which could prove useful to others, it was their duty not to let pass the opportunity of making it known. The next advice he would give them was, not to undervalue their own social position. The prizes he had awarded them to-day were prizes for technical education; but however educated a man might be for technical pursuits, he could not turn his talents to account unless he had also a general and a liberal education. He did not suppose this advice was applicable to any of them—he was only speaking theoretically; but he would most strongly impress on them that the medical man of these days, if he would hold his own, must also be a highly educated gentleman in the broadest sense of the word. Putting aside the clerical profession—for it stood alone in its sacred character—there were no men who were placed in such close relationship with their fellow-men as the lawyer and the doctor, and oftentimes when the doctor stood by the bedside of his patient it became a question whether he should be a mere scientific machine or a man of feeling and susceptibility, capable of entering into questions which required some knowledge of men and things, and capable of giving counsel far in value above all the drugs in Apothecaries' Hall, when counsel at such a moment might be the turning-point of recovery. Let him urge on them, as they were medical men in the first place, that they should be gentlemen and Christians in the second place; and, while they should not neglect those studies which would lead on to their own success, let them likewise improve themselves in all matters pertaining to the man of liberal education, so as to fit them to hold their proper place in this troublesome, this seething, and progressive world. He thanked them most heartily for the indulgence they had shown him on this occasion. On the motion of Mr. J. Manship Norman, seconded by Mr. Robert Few, a cordial vote of thanks was accorded to the Chairman for his eloquent and admirable address, and the proceedings concluded.

Dr. Brown-Séquard.—Our readers will be sorry to learn that our eminent *confrère*, who is in the enjoyment of a lucrative practice in New York, has just lost his wife, whom he married about a twelvemonth since, in childbirth.

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THE WEBB FUND.

The following contributions have been received by Mr. Augustus Churchill, the Treasurer, to the 10th inst. :—

	£	s.	d.		£	s.	d.
Mr. W. H. Grimston ...	10	10	0	Dr. Quain	10	10	0
Dr. Meadows	2	2	0	Mr. Prescott Hewett ...	10	10	0
Rev. Thomas Wm. Webb	100	0	0				
Mrs. Harpur	0	10	0		145	8	0
Professor Flower	3	3	0	Amount previously acknowledged ...	1884	1	6
Dr. W. E. Wright, Madras	5	0	0				
Mr. H. H. Massey ...	1	1	0				
Mr. Lloyd Bullock ...	1	1	0	Total	£2029	9	6
Dr. F. R. Hegg	1	1	0				

*** This Fund will be closed on the 27th inst.

FROM ABROAD.

Enlargement of the Bronchial Glands in relation to Phthisis.

Professor Lereboullet, of the Val-de-Grâce, read an essay, entitled "Clinical Researches on Bronchial Adenopathy considered as a Sign of the Commencement of Phthisis Pulmonalis," before the Medical Society of Emulation, and has since published it in the *Union Médicale* for May 19 and 26. The following are his general conclusions :—

"1. Pulmonary tuberculisation may be often recognised, from its commencement, by the dulness consequent on percussion of the superior intra-scapular region. 2. This dulness, which is less characterised by modifications of sonority than by the resistance offered to the finger with which percussion is made, can only be perceived after long practice has led to the appreciation of the results obtainable by percussion of this region in the normal state. It is especially recognised by comparing the sonority and elasticity of the intra-scapular regions on both sides and at the same level. 3. The dulness does not seem to be due to a tubercular infiltration of the postero-internal region of the upper lobe, but to be attributable to hypertrophy of the sub-tracheal and peri-bronchial lymphatic glands. 4. These glands become tumefied when the commencing development of tubercular granulations is accompanied by pulmonary congestions, which are always variable in their seat, duration, and intensity. 5. When the size of these glands is sufficiently considerable to cause compression of the trachea or the large bronchi, auscultation confirms the diagnosis. Generally, at the commencement the symptoms recognised by auscultation are only those due to congestion and sometimes to atelectasis pulmonum. 6. This bronchial adenopathy, indicating the commencement of tubercle, gives rise to dyspnœa, which is often continuous, but which is more frequently characterised by nocturnal paroxysms. The dry, raucous cough is accompanied by serospumous expectoration, which is not infrequently sanguinolent. These phenomena seem to depend upon the compression induced by the glands on the pneumogastric nerve and on the pulmonary or bronchial veins. 7. The bronchial adenopathy diminishes very slowly in proportion as the tuberculisation makes progress and reaches the period of ulceration. In fact, it appears to be less marked at this period, and to be most intimately connected with the granular deposits characterising the commencement of chronic tuberculosis. 8. The symptoms of bronchial adenopathy have been met with by Dr. Guéneau de Mussy in the course of measles and typhoid fever, and especially pertussis. We have not met with analogous facts, although we have several times sought for the symptoms of bronchial adenopathy in measles and typhoid fever in the adult. 9. To sum up: this adenopathy, characterised by intra-scapular dulness and certain functional symptoms, has appeared to us of very frequent occurrence in pulmonary phthisis observed in soldiers. In this respect it seems to us that it may be considered as one of the signs that are most constant and most easy of detection at the commencement of this disease, which is so common in the army.

Professor Bouchut on Diphtheria.

In a paper, published in the *Gazette des Hôpitaux* for June 2, Prof. Bouchut refers to certain pulmonary lesions peculiar to diphtheria and croup, the existence of which he has repeatedly drawn attention to during the last fifteen years, but which, he believes, have not received the recognition which they deserve. According to general opinion, he observes, diphtheria is supposed to be a disease primarily general, like small-pox, due to a primary alteration in the blood—a diphtheritic poisoning complicating the local lesion, and often terminating in lobular pneumonia. According to Dr. Bouchut's own observation, diphtheria is at first a local malady complicated by absorption from the ulcerated surface. From this absorption proceeds a general infection manifesting itself in endocarditis, endarteritis, with infarction of the cellular tissue and the lung, after giving rise to pulmonary abscesses if the patient live long enough. The lesions of diphtheria are those of septicæmia, for we meet with albuminous nephritis, infarctions of the skin, spleen, liver, and of the lungs, which may go on to the formation of metastatic abscess. There is, therefore, a local period without any general accidents in which the lesion is entirely superficial, and it is not until later that the general phenomena of septicæmia are manifested with phagedenism, albuminuria, infarctus, and metastatic abscess, absolutely the same as are observed after operations or deliveries where traumatic or puerperal septicæmia is set up.

From this view of the disease it results that when the disease is seen in time it may be arrested *in situ* and absorption prevented. For this purpose all the diseased surface should be cauterised with a pencil of nitrate of silver; but when the patient is only seen at a later period, and the diphtheria has passed beyond the tonsils and occupies the pharynx, as cauterisation cannot be applied to the whole of the diseased surface, it had better be abstained from. In this case, pharyngeal douches of tincture of saponaria and tar should be resorted to; and during the last ten years M. Bouchut has employed no other means in his hospital. These douches should be applied by means of a hydrocele syringe every hour, day and night. The child, opening its mouth, inclines over a basin held under the chin, and the liquid, forcibly injected, flows out again without ever penetrating into the air-passages. M. Bouchut employs for the injection 100 grammes of Lebœuf's *coal-tar saponiné* to 400 grammes of water, and prefers this to carbolic-acid injections, which he has tried comparatively. Together with these injections he often gives antimony in contra-stimulant doses—five centigrammes in sixty grammes of vehicle; a teaspoonful every hour. The child should also be encouraged to take as much food as possible, feeding being here one of the best remedies. A child who refuses to eat at all is a lost child. Even a little meat does no harm, and, if this cannot be taken, strong soups should be given, as also bread and butter, milk, biscuits dipped in wine, etc. For drinks, wine or brandy should be added to the water used. Wine is, indeed, a powerful auxiliary in the treatment.

The Mortality of Paris in 1872.

In a paper read at the Paris Statistical Society, and published in its journal for April, Dr. Vacher, the well-known medical statistician, furnishes an interesting summary derived from the *Bulletin de Statistique Municipale*.

At a normal period (as deduced from the ten years 1860-70), the number of births registered in a year in Paris may be fixed at 54,000, and that of deaths at 45,000, giving an excess of 9000. Adding to this the immigration of 18,000 which takes place from abroad and from the provinces, the annual increase of inhabitants amounts to about 26,000. Without the events which occurred in 1870-71, the census of 1872 would have shown Paris to have had a population of very nearly 2,000,000. But the actual number only amounted to 1,799,250, or including the garrison, to 1,851,792.

In explanation of the causes of such a deficiency, it is to be noted that the mortality for the two years, 1870 and 1871, together exceeded the normal mean by 70,300 deaths. The natality also descended from its normal mean of 54,000 to 37,410 in 1871. This deficit of 16,500 especially bears upon the months of September and October; and the months of conception which would correspond with this period (December, 1870, and January and February, 1871) are precisely those during which the population was subjected to the most rigorous privations—confirming yet again the observation that suffering and material privations have, as their inevitable effect, the restriction of the natural fecundity of a race. Under this head it may be asked what in twenty years' time—*i.e.*, the period of conscription—will be the condition of this Parisian generation procreated under such sad conditions? The late Millot made the remark that the class of conscripts for 1837, which corresponded by its birth to the year 1816 (which was remarkable for a scarcity severely felt all over France), claimed

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an unusual amount of exemptions by reason of deficient height, deformities, constitutional debility, etc.; and it may be predicted that the material and psychological privations attendant upon the double siege, the alcoholic excesses, and the mental excitement continued into a chronic state, will exhibit their "physiological contrecoup" on those born at this terrible period.

Thus, the diminution of the population of Paris depended in great part on the considerable increase of the mortality of 1870-71, and also, although in a less degree, on the diminution of the normal amount of births. But these two causes do not explain all, and other secondary causes have had their influence. Among these may be mentioned the great diminution of the German population from 30,000 to 5000, and the current of emigration that has been established from the capital towards the provinces in place of the former immigration. Of course this will be only temporary, as was the case at the period 1848-51. The population of Paris in 1851 was but 1,053,262, while in 1846 it had been 1,053,897; but it soon recovered itself, as by 1856 there had been an increase of 12,000 inhabitants.

Of the population of 1872—viz., 1,799,150 (or 1,851,792 with the addition of the garrison)—there died 40,489, which is a notable diminution of the mean annual mortality, viz., 45,000. It is to be observed that after all great epidemics or excessive mortalities a diminution of deaths is almost constantly observed—a diminution which applies to the totality of the prevalent diseases, and not to the absence of any one of them in particular. All diseases participate in the diminution, just as they participate in the mortality in the years in which this is excessive. Compared with other capitals, Paris of 1872 occupies a most favourable position, being only just behind London. Examining the special causes of death, among these *small-pox* is remarkable by its rarity, only 182 fatal cases (and we may add far fewer in 1873) having occurred in 1872, again being an example of the diminution of mortality which takes place in the years which follow the explosion of epidemics. In 1870-71 small-pox carried off 15,421 individuals in Paris, and proved infinitely more murderous than did the siege and the civil war—to which only 4862 deaths could be directly imputed. It is no exaggeration to say that in the whole of France 200,000 deaths resulted from this cause. Among the deaths 537 are returned as occurring in *puerperal women*, 195 dying at their own homes, and 342 in the hospitals. But the number of women delivered in the hospitals only amounted to 6730, while the *accouchements à domicile* were 47,000 in number, so that the conclusion to be drawn is, that while 4·1 per 1000 died among those delivered at home, 51 per 1000, or thirteen times more, died of those delivered in hospitals. It is with good reason, therefore, that the Assistance Publique is doing all it can to restrict the number of women delivered in the hospitals. Financially also it is encouraged to pursue this course, for while all the expenses attendant upon delivery at home do not exceed 21 fr. per woman, at the Maternities these have varied from 47 fr. to 72 fr. What is here stated of puerperal affections may as truly be repeated concerning phthisis, pneumonia, and of the greater part, if not the whole of the diseases which decimate the population—viz., that the mortality in the Paris hospitals is incomparably higher than in the most wretched abodes in the faubourgs. The data derived from statistics lead to the conclusion that it would be to the advantage of hygiene and public morality to progressively replace hospital aid by aid supplied at the patient's own residence. The budget would be also much benefited by this procedure, inasmuch as while the mean daily cost of a patient treated *à domicile* is but 1 fr. 19c., it is 2¼ fr. in the hospitals.

According to the police returns, the number of *suicides* which occurred in Paris during 1872 amounted to 797, but, enormous as this is, it is less than in former years, the number in 1869 having been 1100. Besides the above there were 231 attempts at suicide arrested in 1872. The most common means employed was hanging, by which 234 suicides were committed—one of these, strange to say, having been accomplished in the police cellular van. In 100 cases death was caused by drowning, in 58 by precipitation, in 77 by gunshot, in 50 by sword-wounds, and in 41 by poisoning. Among these last, poisoning by phosphorus matches held the first place. *Accidental deaths*, usually produced by running-over, amounted to 902; but deaths from this cause are less frequent than in London and New York. There were 105 deaths from accidental burning, a considerable number of these being produced by petroleum. The *homicides* were only 23 during 1872, while at New York they were 57, and at London 125. "Must we attribute this result to our greater morality, or give the credit of it to the vigilance of the Paris police, and to its superior organisation to that of the London and New York police?" Of *sudden deaths* in the public streets there were 462, chiefly due to rupture of aneurism or of the large vessels; and M. Vacher thinks that it is not an exaggeration to say that the number of deaths which result from rupture of aneurism and the large vessels which occur in the public streets and *à domicile* amount to 1000 per annum—a result which he believes the frequent occurrence of revolutions and political crises contributes to bring about.

"To sum up: the mortality of Paris in 1872 is less than at any epoch of the decennial period which it terminates; it is as low as that of any other capital, London excepted. It may therefore be said that, whether we compare Paris with itself at different epochs, or place it in parallel with other capitals, its sanitary condition is highly satisfactory."

REVIEWS.

Pathologie und Therapie der Muskulären Rückgratsverkrummungen. Von Prof. Dr. Axel Ulrich. Bremen. 1874.

The Pathology and Treatment of Spinal Curvatures of Muscular Origin. By Professor Ulrich, Director of the Swedish Institute for Medical Gymnastics at Bremen. Bremen. 1874.

We have much pleasure in laying before our readers a short summary of this most excellent treatise. It is the work of a man who has spent the best years of his life in studying and perfecting his system, and in endeavouring to force on the attention of the profession the claims of a rational system of treatment of muscular deformities of the spine. The main point on which the author insists, and on which his therapeutics are founded, is that a spinal deformity, however it arises, is soon felt by the organism as a whole, and excites general constitutional mischief, which in its turn reacts on the primary disease and intensifies it. For this reason muscular curvatures—*lordosis*, and the equally common *scoliosis*—deserve more attention than they have hitherto obtained from the medical profession, not only with a view to their rational treatment, but also to their future prevention. In his first chapter Dr. Ulrich describes the various forms of muscular curvatures, and shows that the majority of them arise in persons suffering from deep constitutional weakness, and are dependent on the scrofulous or rickety diatheses. In the second chapter he discusses their determining causes, and shows how much a faulty system of education contributes to their production. Learning at high pressure, close ill-ventilated and badly lighted schoolrooms, seats and desks which force children to assume unhealthy postures, and insufficient exercise, not only excite but exacerbate these deformities. Improper position (stooping) in study most commonly gives rise to kyphosis by relaxing the rhomboid and trapezius and other important muscles of the back. Dr. Ulrich considers that, as a rule, too much attention is paid to strengthening the muscles of the chest, and too little those of the back. The most frequent cause of scoliosis is, according to the author, unequal exercise of the two sides of the body, the right side more than the left, so that right-sided S-shaped scoliosis is its most common form. He gives a very clear account of the development of scoliosis, which will well repay perusal. He also calls attention to the deficiency of post-mortem examinations of a large number of scoliotic persons, and calls on all those who have wide opportunities of making such examinations to utilise them for the purpose of throwing additional light on this important deformity. Besides an unequal use of the two sides of the body, scoliosis may arise from an oblique position of the pelvis, due to persons at the period of active growth using one foot (generally the right) to stand on, or to ascend stairs with, rather than the other. Thus one crista ilii may come to be one or two inches higher than the other; and the vertebral column, which is always at right angles to the pelvis, then takes a left-sided deviation from the vertical position, which is followed by an attempt at restoration of the erect posture by a bending of the head and upper part of the spine in a concavity towards the right.

The third chapter of the book treats of the general therapeutics of muscular deformities. Drugs and dietetic remedies, as well as baths, are of use as general tonics to the weakened constitution, and exercise and fresh air are to be carefully

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attended to. Mattresses are to be used instead of feather-beds, and school hours restricted to one or two hours in the morning and afternoon.

Myotomy can scarcely ever be necessary in contractions of the vertebral muscles, and electrisation is not of so much value as is often thought, for though "it can rouse a relaxed muscle into momentary action, it cannot evoke the patient's energy and force of will to the degree which is absolutely necessary for the radical cure of his disease."

Dr. Ulrich vigorously decries the use of apparatus for supporting relaxed parts. External supports to the trunk-muscles of a weak patient only make them still weaker and increase the evil they were intended to relieve. The recumbent posture is also bad, not only from its effects on the muscular, but also on the general system. Dr. Ulrich says (s. 58)—"We are obliged to deny almost *in toto* the value of orthopædic surgery as a remedy in spinal curvatures of muscular origin; at any rate we desire to check its great misuse, and to make orthopædic surgeons something more than mere machines who treat the human body as if it were a mass of clay, and not a living organism." With the exception of curvatures due to vertebral disease (Pott's curvature, etc.), where continual recumbency or the wearing of a machine might be necessary, such measures ought seldom to be recommended. Dr. Ulrich then discusses the system of scientific gymnastics which Ling first introduced in 1847. He defines scientific gymnastics as "the combination of science and art (*Wissenschaft und Kunst*), which, in harmony with the natural laws of mechanics, anatomy, and physiology, teaches how to obtain the greatest possible perfection of the human body by movements directed to a rational purpose." Scientific gymnastics he believes to be the most excellent and radical means of curing muscular curvatures. They are used in three ways—1. *Actively*, the patient bringing certain muscles into play by his own will, so as to overcome some resistance opposed to them, either the weight of a limb or of some apparatus. 2. *Half-actively—i.e.*, the muscular force of the patient is resisted by a counter-force exerted by some other person. 3. *Passively*—that is to say, that movements are produced in the patient's muscles by an independent person (the master), who bends his limbs without any exertion on his (the patient's) own part.

There is no condition of weakness which excludes a gymnastic treatment; on the contrary, the weaker the patient the more necessary for him is the use of a mild application of the method. The following general considerations are laid down by Dr. Ulrich with regard to medical gymnastics:—1. The aim of the treatment is to strengthen the patient's general muscular and nervous system. 2. The respiratory functions are to be roused by gentle movements of the thorax and repeated deep inspirations. 3. Growth and nutrition are to be augmented by movements which strengthen the abdominal muscles, and so increase peristalsis of the viscera and the vigour of the vegetative nervous system.

In the fourth and last chapter the gymnastic method is still further developed, and its application to the different forms of curvature minutely described. Generally speaking, the fundamental object of all the movements which are brought to bear on the muscles is to produce and maintain a strong extension of the vertebral column and trunk, and the patient is to have his attention continually called to this principle. Extension may be produced either passively by means of gravity—the patient, *e.g.*, hanging by the arms from a bar with his fingers at exactly the same level—or actively by keeping himself erect, with arms raised, and holding a rod about a yard long above his head. A resistance may be made to his movements at the same time, so as to rouse his energy and maintain his attention.

We have not space to enter into the details of the various methods which Dr. Ulrich describes, and which are all founded on the principles just enunciated. We can only add that a gymnastic treatment on the above system generally lasts six months, but better results are obtained if it extends over a year or more. Dr. Ulrich states that, as a rule, gymnastics may always reckon on a complete success in the treatment of muscular deformities if they are not complicated with great alterations in the osseous system.

It is to be hoped that this work will appear before long in an English dress, so that its valuable precepts may be as widely diffused as they deserve to be. Every page bears witness to the earnestness and enthusiasm of the author in the cause of which he is the champion.

It is difficult to decide whether muscular deformities of the spine are as frequent in England as they appear to be in Germany, but there is still much that is defective in the physical education of the young, and especially of girls, which might well make them of no rare occurrence. If Dr. Ulrich's book only leads to a revision of the existing system of early physical education, it will do good service. The motto which he has chosen for his opening chapter should be ours as well as his: *Principiis obsta.*

FOREIGN AND COLONIAL CORRESPONDENCE.

FRANCE.

Paris, June 8.

Dr. De Wecker's Clinique—Operations for Cataract—Operations for Iridectomy—Operations for Sclerotomy—Strabotomy—Conjunctival Grafting—Alphonse Guérin on Ferments and the Prevention of Surgical Disease.

In the *Medical Times and Gazette* of June 1, 1872, I gave an account of Dr. De Wecker's Ophthalmological Clinique in Paris, which seems to be a great success, as patients from all parts of the world flock to it, where they receive the best treatment and advice in that particular branch of surgery. Dr. De Wecker furnishes annually a report of his clinique, and according to that which he has just published it would appear that during the year 1873 he had performed 782 operations on the eye. Operations for cataract afforded the largest number, then come iridectomies and operations for squinting. In the letter above referred to, I mentioned the mode of procedure adopted by Dr. De Wecker in his operations for cataract, which consisted of a slight peripheric flap, which he preferred to the linear extraction of De Graefe, and which he states has given the best results. He has this year introduced two slight modifications in the mode of procedure, which he strongly recommends as being a great improvement on his previous operation. The first modification bears on excision of the iris, which he practises by means of a small pair of forceps-scissors (*pinces-ciseaux*). These forceps, which are extremely fine, and blunted at the extremities, can be slipped under the little corneal flap, and excision of the iris can thus be performed under the cornea. This obviates the necessity of pulling on the prolapsed portion, and thus prevents—the section of the iris being terminated—the angles of this membrane being pinched in the extremities of the corneal section. The extremities of the divided sphincter descend immediately to form a sort of keyhole; besides which profuse hæmorrhage of the iris is less frequent in this operation than when the membrane is drawn out to be divided by ordinary scissors. Moreover, these "*pinces-ciseaux*" are much more convenient for extraction through the superior opening than the curved scissors commonly in use. The second modification of the operation for cataract has reference to the expulsion of the crystalline lens. It is well known how necessary it is, at the moment when the lens passes through the wound, that the patient should abstain from contracting his eyelids, in order to prevent the rupture of the zonula and a fresh pinching of the iris. This accident, however, is easily prevented by means of the "*écarteur*," by which the eyelids are kept above the globe of the eye during the whole time necessary for the expulsion of the lens. In thus carrying out the operation, Dr. De Wecker has noticed that the number of cases in which the vitreous humour used to escape has been reduced this year 3·2 per cent. Henceforward the escape of the vitreous humour in the operation with peripheric flap is only to be dreaded in the case of a defect in the mode of operating, or in case of a lesion of the zonula with partial dislocation of the crystalline lens and quivering of the iris.

The operation next in importance, numerically speaking, is that of iridectomy. Dr. De Wecker performed it 173 times during last year, which may be divided according to the object he had in view. Thus, of this number there were 42 "optic" iridectomies and 131 "antiphlogistic." Dr. De Wecker seems to have been very successful with this operation, which he has performed in various affections of the eye, principally in iridochoroiditis and simple chronic glaucoma. The cases in which this operation is particularly indicated are those of secondary cataracts too dense to be easily broken up with the needles, but which ought to be removed with the *pinces-ciseaux*. In

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this case a simple incision may be sufficient, or if necessary excision of a portion of the secondary cataract may be performed. Whenever he has to deal with a dense secondary cataract adhering to the edge of the pupils, accompanied, as generally occurs in this case, by a movement of attraction towards the incision through which the crystalline lens escaped, Dr. De Wecker adopts the following mode of procedure:—He introduces a small curved knife furnished with a check across the cornea at a distance of one or two millemetres from the superior edge of that membrane, and pushes the knife until stopped by the check into the anterior chamber. He then gently removes the instrument as far as half the length of the blade, so as to allow the escape of the aqueous humour, and at the same time to enable the secondary cataract to apply itself against the point of the knife. The instrument is then re-introduced in order to effect in the secondary cataract an opening sufficiently large to admit the *pinces-ciseaux*. This opening, moreover, ought to be at a little distance from the internal wound of the cornea, which facilitates the introduction of the inferior branch of the forceps. It is to be understood that in pushing the knife into the eye the operator ought to be particularly careful to keep the instrument as near as possible to the posterior surface of the secondary cataract. By this means prolapsus of the vitreous humour is prevented. The second part of the operation consists in introducing the forceps-scissors, and in dividing in a single cut the secondary cataract and the whole of the sphincter of the iris; the latter in retracting necessarily keeps the secondary cataract open, owing to its attachments to the iris. A large black pupil is immediately produced, which is completely free from opacity. This operation is certainly one of the most brilliant in ophthalmic surgery, and, besides, surpasses in efficacy all the other modes of operation. On the other hand, if the operation is performed after the disappearance of the inflammatory symptoms consequent on the first operation—that is to say, at least eight or ten months after it—no reaction will result, and in this respect it will differ widely from the other methods of extraction of secondary cataract. Dr. De Wecker hopes that the advantages of iridotomy will certainly be more appreciated according as the surgeon becomes more familiar with this operation, and that he will be convinced of its incontestable superiority over iridectomy, as it prevents, in irritable eyes, not only any traction on the ciliary body, but also all consecutive reaction. The Doctor notes also that iridotomy is employed with a view of replacing excision of the iris in the operation of combined discision.

As regards sclerotomy, Dr. De Wecker asserts that it is no longer possible to doubt that simple incision of the sclerotic has in cases of glaucoma a curative action analogous to that obtained by iridectomy, and he thus resumes the indications of the operation:—Excision of the iris, when it has preserved its normal structure, is, as an operation for glaucoma, easier and more certain in its execution than sclerotomy, and this owing to the pinching to which the parts are exposed in this last operation. Each time it is considered necessary to preserve a certain amount of vision and to enlarge its field, the surgeon will resort to iridectomy; on the other hand, he will practise sclerotomy if he finds it easier and safer than excision of the iris. Sclerotomy ought to be preferred to enucleation when, in a case of absolute glaucoma, the sufferings of the patient necessitate surgical interference. Dr. De Wecker considers that sclerotomy is the operation *par excellence* for absolute glaucoma, as shown by the result of his clinical reports.

Strabotomy was performed 121 times during the year 1873, of which there were 113 cases of tenotomy and eight of "muscular advancement" (*avancements musculaires*). Dr. De Wecker has effected a very important modification in the mode of procedure of "muscular advancement," for an account of which I must refer your readers to the "*Annales d'Oculistique*," vol. lxx., page 225, 1873.

Among the new operations performed by Dr. De Wecker last year I may note the grafting, or transplantation, of the conjunctiva of a rabbit, with the view of combating symblepharon and zerophthalmos. Dr. De Wecker does not approve of conjunctival grafting as described by M. Wolff in the *Annales d'Oculistique*, vol. lxx., p. 225, 1873, and substitutes for it the following mode of operation:—After chloroforming the rabbit, and separating and everting the nictitant membrane, he disengages the ocular conjunctiva and that of the *cul-de-sac* in order to obtain a large flap measuring three or three and a half centimetres in length by one to one and a half centimetre in breadth. This fragment is stretched out on a plate of glass used for microscopic purposes, taking care to place the external surface of the conjunctiva outwards, and not to confound the two surfaces. The conjunctiva adheres closely to the glass, which can be placed on a small vessel filled with hot water, so that the vapour may preserve the fragment sufficiently warm and moist. It is only after having made all the necessary preparation for the transplantation that the eyelids should be separated and the parts on which the fragment of the conjunctiva is placed should be incised. The bleeding that results being stopped, the lower lid is everted (if the case be one of inferior symblepharon), and the globe of the eye drawn upwards; the conjunctiva is then stretched carefully on the wound, paying attention to make no mistake regarding the surfaces of the detached fragment. Then, with fine English silk thread, the edges of the fragment are united with the lips of the wound. The first sutures are particularly difficult to practise, and Dr. De Wecker recommends a needleholder (*porte-aiguille*) to effect their application. To fix the fragment covering the inferior *cul-de-sac*, as well as the inferior portion of the globe of the eye, it would be necessary to apply at least twenty sutures. These must remain untouched until they are separated spontaneously. Moreover, it will be necessary to place in the centre of the fragment a suture with a loop, which is to traverse the skin of the cheek, after the manner of the suture employed by Snellen for ectropion. It is only in this way that perfect contact of the transplanted fragment with the raw surface can be obtained—a condition indispensable for the success of the graft.

Dr. De Wecker thinks that conjunctival grafting is destined to render great service principally in cases of complete symblepharon and in adhesions of the eyelids accompanied with atrophy of the eye itself, such as is observed after conjunctival diphtheria, burns caused by lime, etc. Here the separation of the eyelids by means of animal grafting would render the use of an artificial eye possible.

M. Alphonse Guérin is very pertinacious in his researches on the action of ferments in surgical affections. In a former letter I had already communicated his theory as to the efficacy of cotton-wool dressing in wounds and amputations in preventing purulent infection and septicæmia. In a paper recently read before the Academy of Sciences, M. Guérin stated that in the mode of dressing introduced by him the pus of wounds does not contain any elements of putrid fermentation, and that even after thirty or forty days it is found to be free from odour. It was generally believed that this immunity from putrid fermentation was due to the wound having been excluded from the air. This, however, is disproved by M. Guérin, and he has shown that the cotton is not impervious to the air, but that the latter in its passage through the cotton-wool is filtered by it, so that when it reaches the wound it is quite free from putrid or other germs. When pus (he added) is completely intercepted from all communication with the external atmosphere, as, for instance, when placed under a layer of oil, it may be preserved for an indefinite period without any trace of decomposition. If then I prove (continues M. Guérin) that pus confined under the cotton-wool decomposes rapidly, I shall have shown that my method differs completely from that of occlusion; in fact, microscopic examination shows that pus secreted under the cotton-wool and excluded from the air, and consequently protected from atmospheric germs, loses its corpuscles, and is transformed into an oily emulsion in which are often observed needle-like crystals which sometimes acquire considerable dimensions. M. Guérin explains this phenomenon by the action of the oxygen of the air, and finds the proof of this assertion in the fact that pus, which is habitually neutral, becomes acid under the cotton-wool dressing. In this case, then, there is contact with the air, and decomposition takes place, but the transformation is of a chemical and not of a putrid character. Among the experiments performed by M. Guérin to prove that in his mode of dressing the external air reaches the wound, he cites one which seems to place the question beyond all doubt. He applied the cotton-wool dressing to the head of one of his pupils, enveloping at the same time the nose and mouth, and respiration was performed without difficulty. It may be objected that certain cotton-wool dressings give out an offensive odour; this (added M. Guérin) only proves that they had not been applied with the necessary precautions. The wool in this case loses its elasticity, and, not exerting after three or four days sufficient compression on the wound to prevent the pus from running out and

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coming in contact with the air, the bandages must be frequently renewed. The bad odour may also depend upon the quantity of cotton-wool being insufficient to prevent the pus traversing the entire thickness of the materials employed in the dressing. Whenever the exterior of the dressing is stained, even to the extent of a millimetre, the stain may be looked upon as an opening through which the ferments enter. Before applying the dressing, it is necessary to wash the wound with a solution of carbolic acid or with camphorated alcohol, in order to destroy any germs that may exist. This question of the influence of ferments in the production of purulent infection is certainly one of the most important in surgery. Even till lately it was believed that the surface of a wound could engender a poison under the sole influence of a bad constitution of the wounded, and alcoholism was considered one of the most potent causes of the terrible affection which follows operations so frequently. M. Guérin does not deny that the abuse of alcoholic liquors has a deleterious influence; but it cannot of itself give rise to special ferments which produce the toxic effect known under the name of "purulent infection." It was the soldiers of the Commune on whom the eminent surgeon commenced the trial of his cotton-wool dressing. All of them (he continued) had suffered great privations during the siege. Very few among them belonged to temperance societies. All of them knew that they were beaten, and that on leaving the hospital they would have to appear before a court-martial. All these conditions seemed to combine to oppose their cure; and notwithstanding this the patients got well when their wounds were in contact only with air that had been filtered. It is a remarkable fact that these ferments which have such an influence upon wounds have no effect upon the mucous membranes of the digestive and the respiratory passages. According to M. Guérin, it is necessary to have a suppurating surface to produce the putrid fermentation, and consequently purulent infection. Such is a short summary of M. Alphonse Guérin's thesis. If it be correct, the hygiene of hospitals has yet to be studied. Up till now the salubrity of a sanitary establishment was measured by the number of cubic feet of air which it contained. It is undeniable that the renewal of the air of the interior of a hospital has a beneficial influence on the patients. Nevertheless there are establishments—as, for instance, the Lariboisière Hospital—where the ventilation has attained the greatest perfection, but where, in spite of this, the mortality is greater than in those hospitals which are looked upon as insalubrious. "If one would admit with me," continued M. Guérin, "that it is the germs contained in the air which poison the wounded, we can understand that if the dust which covers the beams, and fills up the interstices of the floor and of partitions, contains ferments only requiring favourable conditions to become active, the ventilation which doubtless conveys pure air into the wards will not fail to blow about these ferments and keep them in suspension in the air, so that no wounded patient can escape their action." This certainly does not coincide with M. Pasteur's theory, and it would be interesting to know what he would have to say on the subject.

PROVINCIAL CORRESPONDENCE.

IRELAND.

Dublin, June 2.

The Elections at the Royal College of Surgeons—The Public Health (Ireland) Bill—The Annual Medical Meetings: Irish Medical Association; Royal Medical Benevolent Fund Society of Ireland.

The election for Vice-President of the College of Surgeons has terminated in Mr. Edward Hamilton's favour by an overwhelming majority—123 to 72 votes. The interest taken in this election is evidenced by the fact that within the last fortnight upwards of thirty licentiates of the College have presented themselves for fellowship examination in order to qualify for voting at the election of President and Council. Mr. Joliffe Tufnell was unanimously chosen President, and Mr. William Colles was re-elected secretary without opposition.

Since I last wrote, two public bodies in Dublin have taken action with regard to the Public Health Bill—the South Dublin Union and the Corporation. At a meeting of the former held on May 28, the following resolutions were adopted, at the instigation of Mr. John Byrne:—"That the clerk be now directed by this Board to prepare and present petitions to the Houses of Lords and Commons, praying for alterations in the Public Health Bill as following—viz., Sec. 8 unfairly shifts from the local town rates on to the poor-rate charges at present payable by the local town rates, and should be amended in this respect. That the medical officers under sec. 10 will have duties to discharge for persons other than their dispensary committees: this divided duty, divided accountability and responsibility thereby created is undesirable, and will tend to confusion and clashing of interests, and the clause should be altered in this respect. Sec. 3, p. 11, line 6, "general expenses" should be "special expenses." Sec. 4 should omit all after line 26. That the Local Government Board be requested to concur in these our views, and to lend their aid to have suitable alterations made. That those petitions be entrusted to Sir A. Guinness, for presentation in the House of Commons, and to Lord O'Hagan in the House of Lords."

Dr. George B. Owens, chairman of the South City Dispensary Committee, seconded the proposition, in words to the following effect:—"From his experience he would say that the medical officers of dispensary districts were already overburdened with work, and he had no doubt that if they were appointed sanitary officers there would be a clamour amongst them for an increase of pay."

Next day, May 29, the Corporation adopted a report on the Bill, curiously enough on the proposition of the very same Mr. John Byrne. Some of the amendments suggested in the report are admirable, but the anti-medical animus of that on clause 10 is clear enough from Mr. Byrne's remarks upon it, which I extract from the *Daily Express* newspaper:—

"Another vital point with which the new Bill interfered was that it, with as little reason as in the transfer of operations from the committee to the whole Corporation, proposed to make the medical officers the sanitary authorities, yet so that the Corporation would have no voice either in their appointment or dismissal, and had simply the very peculiar advantage of being compelled to pay them, while the whole of the ordinary relations between master and servant were done away with. Everyone must see the absurdity of this, for there was no means so effectual of obliging men to do their duty properly as to give those men who paid them, and for whom they worked, the power of exercising that check over them of dismissal or reproof, if it should ever be needed. The amount of salary, moreover, should be left to each sanitary authority, and not be placed under the control of the Local Government Board, who had no direct knowledge of or connexion with the duties discharged."

The College of Physicians, so far from objecting to the dispensary medical officers as district health officers, claim that the "superintendent health officers" spoken of in clause 10 of the Bill should be qualified medical men, and further propose that inspecting medical officers of health should be appointed under the Local Government Board directly. I may mention that a deputation of the College leaves town to-morrow for London, to wait upon Sir M. Hicks Beach, next Friday, on the subject. The deputation consists of the President (Dr. Duncan,) the Registrar, Dr. J. Magee Finny, Dr. Evory Kennedy, and Dr. T. W. Grimshaw.

The annual medical meetings were held yesterday, and were largely attended. At half-past eleven the Irish Medical Association met at the Royal College of Surgeons. The chair was taken by the President, Dr. James Wharton, who in his opening remarks laid stress on the importance of including in legislation for public health, regulations whereby the sale of intoxicating drinks might be limited, and intemperance thus held in check. The report was read by Dr. E. J. Quinan, honorary secretary, and touched upon many points of medical interest, such as the Public Health Bill, the Pharmacy (Ireland) Bill proposed by the College of Physicians, the grievances of militia surgeons and of poor-law medical officers, etc. In reference to a suggestion bearing on clause 10 of the Public Health Bill, that the acceptance of office as district health officers should be optional and not compulsory on the dispensary medical officers, a majority of the meeting was in favour of the clause standing as proposed by the Chief Secretary.

In the afternoon the friends of the Royal Medical Benevolent Fund Society assembled in the hall of the College of Physicians, the chair being occupied by Dr. James F. Duncan, President of the College. It appeared that a sum of £1674 was available for distribution, and the report, read by Dr. McClintock, one of the honorary secretaries, testified to the

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usefulness and prosperity of the Society. The funded capital, invested in Bank of Ireland Stock, amounted to £5211 4s. 8d., worth £16,050 at its present value. The applications numbered ninety-four, fifteen of which were new, including ten medical men (three new), seventy-three widows (eleven new), and eleven orphans. Amongst subscriptions, one of £17 from the students of the Queen's College, Belfast, deserves to be specially recorded.

The speakers to resolutions were Sir Dominic Corrigan, Bart.; Drs. Tagert (Carrickmacross), T. H. Purdon (Belfast), Joynt (Bombay), Bleckley (Bengal), Charles Benson, S. Chaplin (Kildare), Hayden, Banks, and Denham.

I cannot conclude this necessarily brief notice of the meeting without a quotation from the report, showing the practical good done by the Society, which now has reached the thirty-third year of its existence:—

"Two medical men, recipients of aid from the Fund, have been removed by death. One was a gentleman far advanced in years, who came on our list in January, 1873, and died last February; he received in all £45. The other was a peculiarly distressing case, and one which exemplifies in the most convincing manner the incalculable value of a society like ours. Through the combined influence of cerebral disease and domestic bereavement, this gentleman's health rapidly broke down; along with this his income, being entirely derived from private practice, ceased, so that beggary stared him in the face. To make matters still worse, he was utterly unable to keep up an insurance, effected years before, for the benefit of his wife and children; as a last resource, under these desperate circumstances, he applied for assistance to the Fund, and received in two payments £42. Never was relief so well timed; for, although he died soon after receiving the second instalment, still the insurance was saved to his family; and the knowledge of this fact shed the one cheering ray of human comfort on the last days of his honest and toilsome life. Comment on such a case as this would be superfluous; it pleads the cause of our Society more powerfully than any language, however eloquent."

GENERAL CORRESPONDENCE.

LETTER OF THANKS FROM MRS. S. S. WEBB.

[To the Editor of the Medical Times and Gazette.]

SIR,—I hope you will allow me space in your columns to very sincerely thank you, and all those who have so kindly and so effectually helped to secure the election of my son, Hugh C. Webb, to a Foundation Scholarship of the Royal Epsom College. It is a great gain to him to have thus been successful in his first application, and to us to have been spared the delay, anxiety, and expense of a longer canvass. I am very grateful for this, as also for many other proofs of the high regard and esteem in which my dear husband was held. I am, &c.,

22, Woburn-place, June 6. SARAH S. WEBB.

OBITUARY.

EDWARD DAVIES, M.D., R.N., DEPUTY INSPECTOR-GENERAL OF HOSPITALS AND FLEETS,

DIED at his residence, Uxbridge-villa, Shooter's-hill, Kent, on the 4th inst., in his sixty-ninth year. He attained the rank of Surgeon in the Royal Navy in 1841, and was promoted Deputy Inspector-General on the retired list in 1863.

SURGEON-GENERAL BEATSON, C.B.

WE regret to have to announce the death of Surgeon-General Beatson, C.B., Principal Medical Officer of her Majesty's British Forces in India, and Honorary Physician to the Queen, which is reported by telegram to have taken place suddenly at Simla, although no particulars are given. Dr. Beatson's first commission as Assistant-Surgeon was dated 1838. He served as Surgeon of the 51st Foot through the Burmese war of 1852-3, for which he held a medal and clasp. During the Crimean war he was stationed at Scutari and at Smyrna. He had a large Indian administrative experience, and after having filled the post of Principal Medical Officer in the Madras Presidency, he was twice appointed Principal Medical Officer in India, his second tour of service having thus unhappily terminated. Dr. Beatson's decease will be the more regretted by his numerous friends as they might fairly have hoped to see him eventually at the very head of his department in succession to the present Director-General.

JAMES BIRD, M.R.C.S. ENG., L.S.A.

WE regret to have to announce the death of Mr. James Bird, at his house No. 80, Seymour-street, Portman-square. Mr. Bird was educated at St. Bartholomew's. He became M.R.C.S. Eng. in 1825, and L.S.A. in 1821. He commenced practice at Cardiff, where he became Surgeon to the Royal Glamorgan Light Infantry Regiment Militia, and Cardiff Dispensary. After a few years spent at Cardiff, he came to London, and settled in Oxford-street, but soon afterwards removed to Orchard-street, Portman-square, where for many years he carried on a considerable practice. For several years before the passing of the Medical Act he took an active part on behalf of the general practitioners in the conferences between the authorities of the College of Physicians, the College of Surgeons, and the Society of Apothecaries, and, in conjunction with the late Henry Ancell, was secretary to the British Medical Association, with the late Mr. Pennington as chairman. About eighteen years ago Mr. Bird retired from the active duties of the profession, and, after a time spent in the country, returned to London, and resided in Seymour-street, where he continued to see some of his old patients, who had been much attached to him. In 1867 he lost his wife. This was a blow from which he never recovered, and his failing health constantly reminded him of the irreparable loss he had sustained. Mr. Bird was of a sanguine temperament, and, notwithstanding years of suffering, his cheerfulness and resignation continued to the last. No more affectionate husband, no more tender parent, no kinder or more generous friend, no more intellectual and genial companion than James Bird ever belonged to the medical or any other profession. He was fond of literary pursuits, and, although for these last three years he spent most of his nights in his chair, he constantly occupied his days in writing on scientific subjects for the medical and other periodicals. He was a man of considerable mental energy, and a true philanthropist, ever thinking over and inventing some plan to benefit his kind, as evinced by the several *brochures* which he has written. It was only a few weeks before his death that he wrote a little book for the use of children, entitled "Private Devotions for Girls, with Maxims and Rules of Conduct." He suffered much from asthma and heart disease, and at last dropsy supervened. His mind continued clear almost to the last, and he was cheered and comforted by the untiring and affectionate watchfulness of his two daughters; and he died full of Christian hope, trusting in the merits of his Redeemer.

MEDICAL NEWS.

ROYAL COLLEGE OF SURGEONS OF ENGLAND.—The following Members of the College, having undergone the necessary examinations for the Fellowship, at meetings on the 28th, 29th, and 30th ult., were reported to have acquitted themselves to the satisfaction of the Court of Examiners, and, at a meeting of the Council on the 11th inst., were admitted Fellows of the College, viz.:—

Adams, Josiah Oake, L.S.A., Clapton, diploma of Membership dated April 26, 1865, student of St. Bartholomew's Hospital.
Bird, Cuthbert Hilton Golding, M.B. and B.A. Lond., and L.R.C.P. Lond., Elgin-crescent, Kensington, April 16, 1873, of Guy's Hospital.
Cant, William Edmund, L.R.C.P. Lond., Colchester, May 9, 1867, of St. George's Hospital.
Rose, William, L.S.A., High Wycombe, April 18, 1871, of King's College.
Smith, George Francis Kirby, L.S.A., Northampton, July 22, 1872, of Guy's Hospital.
Yate, Edward, M.B. Lond., Godalming, November 16, 1871, of St. Bartholomew's Hospital.

Out of the nineteen candidates examined, one retired, and twelve, having failed to acquit themselves to the satisfaction of the Court, were referred to their studies for one year.

At the same meeting of the Council, Mr. John Nathaniel Haydon, of Bovey Tracey, North Devon, was elected a Fellow, diploma of Membership dated April 4, 1837.

APOTHECARIES' HALL.—The following gentlemen passed their examination in the Science and Practice of

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Medicine, and received certificates to practise, on Thursday, June 4:—

Cree, William Edward, St. John's-park, Upper Holloway.
Ross, Charles, ate Town.
Rymite, Brougham Robert, St. George's-in-the-East.
Stevens, Alfred Felix, Stoke Newington-green.

The following gentlemen also on the same day passed their primary professional examination:—

Bedolfe, Peyton Davenport, St. Thomas's Hospital.
Sykes, John Frederick Joseph, Guy's Hospital.

APPOINTMENT.

*** The Editor will thank gentlemen to forward to the Publishing-office, as early as possible, information as to any new Appointments that take place.

FENTON, MARK ANTONY, M.D., M.B., B.A., L.R.C.S. Ire., L.M.—Medical Officer of Health for Coventry.

BIRTHS.

BROWNRIGG.—On June 4, at Streatham-common, the wife of J. Annesley Brownrigg, M.D., of a son.

HOBSON.—On June 7, at Great Berkhamsted, the wife of W. H. Hobson, M.R.C.S., of a daughter.

MACGREGOR.—On May 30, at 75, Claverton-street, Pimlico, the wife of J. MacGregor, L.R.C.P., L.R.C.S., Bengal Medical Service, of a son.

NORMAN.—On June 6, at 2, Queen's-crescent, Southsea, the wife of Burford Norman, M.R.C.S., of a son.

WARD.—On June 9, at Saltburn, Twickenham-common, the wife of Martindale C. Ward, M.D., of a son.

MARRIAGES.

ANNANDALE—NELSON.—On June 3, at Trinity Church, Edinburgh, Thomas Annandale, F.R.C.S., 34, Charlotte-square, Edinburgh, to Eveline, eldest daughter of William Nelson, Esq., Salisbury-green.

BROWN—HUGHES.—On June 4, at Kingskerswell, South Devon, David Brown, M.D., to Elizabeth Georgiana (Libbie) Hughes, eldest surviving daughter of the late John Hughes, Esq., of Allt Lwyd, J.P. and D.L. for the County of Cardigan.

CORNISH—BARHAM.—On June 4, at St. John's, Truro, the Rev. John Rundle Cornish, vicar of Veryan, and Fellow of Sydney College, Cambridge, to Constance Eliza, eldest daughter of Charles Barham, M.D.

HAWKINS—MAYO.—On June 4, at Puddlehinton, Dorsetshire, William Hawkins, M.R.C.S. Eng., L.S.A., of Dorchester, to Sarah Lawrance, only daughter of the late George Mayo, Esq., of the Manor House, Puddlehinton.

MARTIN—LUNN.—On June 3, at Christ Church, Hull, the Rev. Henry Martin, Curate of Sunderland, to Mary, youngest daughter of W. J. Lunn, M.D., Hull.

DEATHS.

BEATSON, GEORGE STEWART, M.D., C.B., Surgeon-General of her Majesty's British Forces in India, and Honorary Physician to the Queen, at Knollswood, Simla, on June 7.

BERCHEY, FREDERICK, M.C., M.R.C.S., late of Kempston, Beds, at the residence of his father, Wokingham, Berks, on May 27, in his 32nd year.

BIRD, JAMES, M.R.C.S. Eng., L.S.A., at 80, Seymour-street, Connaught-square, on June 4, aged 72.

FERNIE, ANDREW, M.R.C.S. Eng., L.S.A., at Wellingborough, Northamptonshire, on June 8, in the 70th year of his age.

MCKENNA, JOHN, M.D., late Deputy Inspector-General of Hospitals, Madras Presidency, at Egmore House, 82, Lancaster-road, Notting-hill, W., on June 3, in the 76th year of his age.

PHILLOTT, JOHN STEVENS, M.R.C.S., second son of the late Rev. John Stevens Phillott, Vicar of Wookey, Somerset.

RYAN, WILLIAM BURKE, M.D. Lond., F.R.C.S. Eng., L.S.A., of Bayswater, at New Ross, Ireland, after a few days' illness, on June 4, in the 65th year of his age.

SEWELL, JOHN JESSUP, M.R.C.S. Eng., L.S.A., at his residence, 36, Grand Parade, Brighton, on June 8, aged 67.

SIMPSON, JAMES HORATIO, M.B., M.R.C.P., at Ropergate-terrace, Pontefract, on June 2, aged 59.

VACANCIES.

In the following list the nature of the office vacant, the qualifications required in the Candidate, the person to whom application should be made, and the day of election (as far as known) are stated in succession.

CARLISLE DISPENSARY.—Assistant House-Surgeon. Candidates must be duly qualified and unmarried. Applications, with testimonials, to J. H. W. Davidson, Esq., Honorary Secretary, 8, Devonshire-street, Carlisle.

CHARD UNION.—Medical Officer. Candidates must be duly qualified. Applications, with testimonials, to Mr. T. B. Gould, Clerk to the Union, on or before June 15.

CHARING-CROSS HOSPITAL.—Assistant-Physician. Candidates must be duly qualified. Applications, with testimonials, to the Secretary, on or before June 23.

DERBY COUNTY LUNATIC ASYLUM.—Assistant Medical Officer. Candidates must be duly qualified in medicine and surgery. The office will be vacant on August 2. Applications, with testimonials, to John Barber, Esq., County Lunatic Asylum, Mickleover, Derby.

NEW LUNATIC FARM ASYLUM, WOODILIE, LENZIE JUNCTION.—Medical Superintendent. Applications, with testimonials, to Mr. P. Beattie, Inspector of Poor, Barony Parochial Chambers, 36, Cochrane-street, Glasgow, on or before July 1.

NORTHAMPTON GENERAL INFIRMARY.—Honorary Physician. Candidates must be duly qualified. Applications, with testimonials, to the Secretary, on or before July 1.

ROYAL ALBERT EDWARD INFIRMARY AND DISPENSARY, WIGAN.—House-Surgeon. Candidates must be duly qualified. Applications, with testimonials, to the Honorary Secretary, on or before June 23.

ST. GEORGE'S HOSPITAL, HYDE-PARK CORNER.—Resident Medical Officer. Candidates must be duly qualified. Applications, with testimonials, to the Secretary (of whom further information may be obtained), on or before June 30.

ST. PANCRAS AND NORTHERN DISPENSARY.—Resident Medical Officer. Candidates must be legally qualified. Applications, with testimonials, to S. S. Wigg, Esq., 33, Gordon-square, W.C.

ST. THOMAS'S HOSPITAL.—Resident Assistant-Physician. Candidates must be duly qualified. Applications, with testimonials, to the Treasurer, at the office, St. Thomas's Hospital.

SEAMEN'S HOSPITAL, GREENWICH.—House-Surgeon. Candidates must be duly qualified. Applications, with testimonials, to Kemball Cook, Esq., House-Governor, on or before June 23.

STOURBRIDGE DISPENSARY.—House-Surgeon and Secretary. Candidates must be duly qualified. Applications, with testimonials, to J. B. Sheperd, Esq., Honorary Secretary, on or before June 23.

UNIVERSITY OF DURHAM COLLEGE OF MEDICINE, NEWCASTLE-ON-TYNE. Lecturer on Physiology. Applications to the Secretary, on or before June 16.

WEST BROMWICH DISTRICT HOSPITAL.—House-Surgeon. Candidates must be doubly qualified and unmarried. Applications, with testimonials, to the Honorary Secretary, P. D. Bennett, Esq., West Bromwich, on or before June 15.

WESTERN INFIRMARY, GLASGOW.—Superintendent. Candidates must be registered medical practitioners. Applications, with testimonials, to the Honorary Secretary, on or before June 15.

UNION AND PAROCHIAL MEDICAL SERVICE.

*** The area of each district is stated in acres. The population is computed according to the census of 1871.

RESIGNATIONS.

Holborn Union.—Mr. Henry J. Brown has resigned the First District; salary £105 per annum. Also the Farringdon-road Workhouse; salary £130 per annum.

Horncastle Union.—Mr. Thomas H. Cresswell has resigned the Wragby District; area 19,080; population 3010; salary £35 per annum.

Leicester Union.—Mr. J. Denton has resigned the Second District; population 26,022; salary £80 per annum.

Solihull Union.—Mr. William A. Parsons has resigned the Tamworth District; area 14,492; population 2781; salary £35 per annum, and 6s. for each casual case.

APPOINTMENTS.

Amersham Union.—Henry French, M.R.C.S. Eng., L.S.A., to the Beaconsfield District.

North Bierley Union.—William Binns, L.R.C.P. Edin., L.F.P. and S. Glasg., to the Third District.

Oxford (City).—Mr. William F. Donkin as Analyst.

EDWARD PURSAILL, dairyman, of High-street, Deptford, has been fined £5 and costs for selling milk adulterated with salt.

THE Stockton Board of Guardians have increased the salary of Mr. Hedley, Medical Officer for the Middlesborough South District, from £80 to £100 per annum.

THE following is the list of prizemen at Charing Cross Hospital:—*Winter Session*, 1873-74.—The Llewellyn Scholarship, R. W. Jolly. The Golding Scholarship, J. G. Blackman. Senior Anatomy, silver medal, P. B. Conolly; certificates, D. E. S. Bain, W. J. Brookes (equal). Junior Anatomy, bronze medal, H. R. Whitehead; certificate, D. Colquhoun. Senior Physiology, silver medal, P. B. Conolly; certificate, W. H. Packer. Junior Physiology, bronze medal, J. L. Robertson; certificate, A. Greenwood. Chemistry, silver medal, D. Colquhoun; certificate, A. Greenwood. Senior Medicine, silver medal, C. J. Woollett. Junior Medicine, bronze medal, J. A. Phillips; certificates, J. G. Blackman and W. H. Packer. Senior Surgery, silver medal, C. J. Woollett; certificates, R. W. Jolly, G. Cheesman. Junior Surgery, bronze medal, P. B. Conolly; certificates, W. H. Packer and T. Traverse. *Summer Session*, 1873.—Botany, silver medal, J. G. Blackman; certificate, D. S. E. Bain. Materia Medica, silver medal, J. G. Blackman; certificates, J. A. Phillips and H. Richardson. Midwifery, silver medal, C. J. Woollett. Forensic Medicine, silver medal, R. W. Jolly. Pathology, silver medal, R. W. Jolly; certificate, C. J. Woollett. Practical Chemistry, silver medal, J. G. Blackman; certificate, J. A. Phillips.

THE CARDIFF INVALIDS' DINNER-TABLE FUND.—We have received a copy of the fourth annual report on the "Cardiff Invalids' Dinner-table Fund, or Institution for Feeding the Sick Poor," and we gladly notice the same because we are of opinion that these small institutions for dispensing private benevolence are capable of doing an immense amount of good in a quiet way, by providing healthy and nutritious diet where the same is most urgently required. The report

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sensibly remarks that the medical attendants on the sick poor often labour in vain for want of ability to order the one thing most needed for the patient—nutritious food; and even where the doctor's means and heart are both large, he cannot relieve *all* the starving invalids he attends, and often he stands by the bedside of the poor sufferer, feeling as if he were called upon to dress a wound with his hands tied. During the past year 454 dinners have been given. Of these 102 have been eaten at the institution, and 352 have been taken home to the sick. The balance-sheet, though small, shows a satisfactory balance, and we cordially wish the promoters the continued success their charitable exertions deserve.

THE FRENCH ASSOCIATION FOR THE ADVANCEMENT OF SCIENCE.—The third session of this body will be held at Lille from August 20 to the 27th, 1874. Professor Wurtz, member of the Institut, is the President. All information is to be obtained from the Secretary of the Association, 76, Rue de Rennes, Paris.

SURGEON-MAJOR MOORE, in the "Rajpootana Dispensary, Vaccination, Gaol, and Sanitary Report for 1872-73," says:—"The general condition of prisoners in most of the gaols of the native states is much more in accordance with the circumstances of the outside population than it is in British gaols. The system of discipline is more lax; there is not the same care taken as regards internal economy; in some of the gaols there is no hospital ward, or even space set apart for the purpose; persons are sometimes set free when very sick, and from some of the gaols (Oodeypoor may be specially mentioned) I have not been able to procure even an approximation to the average number of inmates during the year. The idea of a gaol in some of the native states may be exemplified by Jeypoor, perhaps the best gaol under native management, where lunatics are also confined by that most simple of all methods, a long chain to the leg; by Bhurtpoor, where lunatics are similarly seen among the prisoners; by Bhurtpoor again, from which gaol the majority of the prisoners were liberated last year, on the occasion of the birth of a son to the Chief; by Kotah, where the prisoners are taken out begging in the streets; by Jodhpoor, where there is a crowded if not 'happy family' of human beings, dogs, cats, pigeons, and rats, wallowing in the dirt. By the returns of sickness furnished to me monthly from these gaols, and by the reports of native doctors attending to the sick, I am enabled to exercise an indirect influence over their sanitary condition by calling attention to any excessive sickness or epidemic disease, and by pointing out the proper remedial means. The fact also of their reports coming to my office tends to render the native authorities more careful than they otherwise might be to guard against a high death-ratio. But this is, under present circumstances, all that can be attained. There is no matter in which the native durbars are more jealous of interference than in the matter of their gaols, and any attempt at more systematic supervision would close the door against even that knowledge of the internal condition of these gaols to which at present I attain. My experience teaches that, with very few exceptions, the maladies of the gaols in the native states are the maladies prevailing among the surrounding population, and, unless under exceptional cases, which would always demand exceptional mention, I do not think any useful purpose would be fulfilled by comparison of the actual diseases treated in these gaols with either the diseases of British gaols, or with the diseases treated at the dispensaries, even if the comparison, as desired by the Inspector-General, could be made; but this comparison cannot be effectually instituted."

NOTES, QUERIES, AND REPLIES.

He that questioneth much shall learn much.—Bacon.

*** If Dr. Vandyke Carter will kindly call, he shall have all the information we can give him.

M. O. H.—Under clause 1 of section 19 of the Sanitary Act, 1866, legal proceedings can be taken although a house be occupied by only one family.

Judex is advised to take no notice of the matter.

"Let every man enjoy his whim;
What's he to me, or I to him?"—*Churchill.*

A Subscriber to Sir William Fergusson's Portrait complains that he has not received any acknowledgment of his subscription, or seen any published list of the names. He will, however, see, and we have no doubt admire, the portrait on visiting the Royal Academy.

Alchemist.—An Act prohibiting attempts at transmutation, and making them felonious, was passed in the fifth year of the reign of Henry IV.

Paddy.—Inoculation was first introduced into Europe by Immanuel Timonis, a Greek physician at Constantinople, who voluntarily communicated the art to the Universities of Oxford and Padua, of which he was a member.

A. A.—The College of Surgeons, Edinburgh, was incorporated in 1505, and made into a College in 1778.

Jotham.—Dr. Franz Joseph Gall, the phrenologist, was born in 1758 at Tiefenbrunn, Wurtemburg. In 1807 he established himself in Paris, where he died in 1828. He directed that his head should be dissected and placed in the museum he had formed.

Psychologist.—The fact you mention is illustrated by Shakespeare, when Cæsar says to Mark Antony—

"Let me have men about me that are fat,—
Sleek-headed men, and such as sleep o' nights;
Yon Cassius has a lean and hungry look,
He thinks too much: such men are dangerous."

H., Sloane-square.—All the property you mention, and much more in the same locality, belonged to a member of our profession—viz., Sir Hans Sloane; he was created a baronet, chosen a member of the Royal Academy of Paris, President of the College of Physicians, and, on the death of Sir Isaac Newton, was elected President of the Royal Society.

Dr. M., Kensington.—The following is the proverb: "The best physicians are Dr. Diet, Dr. Quiet, and Dr. Merryman."

Cremation.—The extraordinary communication on this subject published in the *Figaro* of the 6th inst. is stated to be a hoax on our contemporary; the name of the author, "H. T. Pelling, M.D., Bloomsbury-square," is not to be found in either the "Medical Directories," the Register of the Medical Council, or even in the "Post-office Directory."

MATERIALISTIC VIEW OF ANIMAL CREATION.

TO THE EDITOR OF THE MEDICAL TIMES AND GAZETTE.

SIR,—The enclosed passage from a once popular religious poem—"The Death of Abel," by Solomon Gessner,—may interest such of your readers as care to know the ideas of our ancestors on the mechanism of the creation of animals. As will be seen, animals were believed to spring up living and full-grown out of the earth. I am, &c., ALPHA.

"The Almighty commanded, and myriads of living creatures emerged from the teeming earth, fluttered in the air with variegated plumage, and rendered the astonished woods vocal. Earth again hears the voice of her Almighty Maker; the heaving clods rise in innumerable shapes, and burst into life and motion. The new-formed horse bounds over the verdant turf, and neighing shakes his mane, while the strong lion, impatient to free himself from the cumbrous earth, attempts his first roaring. A hill teems with life; it moves, it bursts, and from it stalks the huge, unwieldly elephant!"

SIR ISAAC NEWTON.

TO THE EDITOR OF THE MEDICAL TIMES AND GAZETTE.

SIR,—It ought never to be forgotten that Sir Isaac Newton was the parent of much of the atomic philosophy of the present day. He, in 1687, described the phenomena of nature as arising from the mutual attraction and repulsion of the particles of matter in definite forms and directions. He describes flame as red-hot smoke, and as differing from smoke just as red-hot iron differs from iron not red-hot. "Calor," he says, "est agitatio partium quaquaversum." I am, &c., B.

CREMATION.

The following appears in the *Liverpool Leader* of May 23, 1874:—

"DE CREMATIONE.

"Chirurgus quidam exuri vult omne cadaver,
Ut cito, quod vermis tarduis, ignis agat.
Hic quærit semper *lapidem*, æternumque sequetur—
Calculus est hodie, in sæcla *cenotaphium*."

"CREMATION.

"Thompson to burn our corses would persuade us,
To pay our debt to elements that made us;
The *lithic* surgeon's aims are clearly shown—
Alive, a *calculus*; defunct, a *stone*." THEMUS.

THE BLAIR MURDER, MAY 19.

TO THE EDITOR OF THE MEDICAL TIMES AND GAZETTE.

SIR,—I am not aware whether any remarks have been made on the verdict of the jury at this inquest. Here was the case of a man given to occasional intoxication, and on the last occasion, in the night, his wife and family being in bed, no immediate provocation or quarrel, murdering his wife and four children, and then committing suicide. The jury sums up this awful butchery, and acquits the murderer of responsibility! I am anxious to know if any of our most learned psychologists, who assume to explain the hidden and complex actions of the human brain in connexion with mental ideas and influences, can give to reckless drunkenness the benefit of a similar acquittal. This frightful wholesale murder, under such a verdict, can be no murder at all. It is, however, a most impressive sermon to caution persons addicted to drink against indulging the habit until it grows to a dangerous enormity; and the question arises, Is drunkenness a vice to be legally punished when it only affects the individual himself, but when it breaks out in assault or murder, and can plead recklessness and even consequent insanity, shall it be adjudged a lesser crime? Confirmed insanity from drink we may allow to be legally irresponsible, whatever the divine law may make guilty under neglected control; but in the one case the individual should be placed in an asylum, perhaps for life. The verdict of the jury quoted has made itself conspicuous in this sense: that, premising the murderer had been arrested before committing suicide, and brought to trial, what would have been the verdict of another jury? It might have been the reverse. I am, &c.,

Nailsworth, June 9. THOMAS STOKES.

P.S.—I frequently see drunkards brought up for abuse and assault who plead drink in extenuation, but I do not see them fined for drunkenness on their own showing. Viewing drunkenness as such a national evil, would it not be well to take these culprits at their word, and at the same time inflict the fine?

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Dr. Radcliffe and Sir Godfrey Kneller.

TO THE EDITOR OF THE MEDICAL TIMES AND GAZETTE.

Sir,—I send you the enclosed epigram on the celebrated Dr. Radcliffe, which I found in an old book in my possession. It will probably interest those who have read Dr. Jefferson's entertaining "Book about Doctors."

I am, &c., George Charles Coles.

"On a Dispute between Dr. Radcliffe and Sir Godfrey Kneller.

"Sir Godfrey and Radcliffe had one common way
Into one common garden, and each had a key:
Quoth Kneller, 'I'll certainly stop up that door,
If ever I find it unlocked any more!'
'Your threats,' replies Radcliffe, 'disturb not my ease;
And so you don't paint it, e'en do what you please.'
'You're smart,' rejoins Kneller; 'but say what you will,
I'll take anything from you—but potion or pill!'"

Traveller.—The pocket filters used in the late Ashantee expedition were made by Messrs. Atkins and Co., Fleet-street. We understand that they are being extensively used by the Admiralty.

A Fellow, Cheltenham.—The usual circular has been posted by the Secretary of the College of Surgeons to every Fellow whose address is known to him. Send your present address at once to him, when you will receive the papers. The election will take place on the 2nd proximo.

Dr. McM.—You will find authenticated cases on the same subject in vol. xviii. of the *Medical Times and Gazette.*

COMMUNICATIONS have been received from—

Mr. G. C. Coles, London; Mr. Spencer Watson, London; Dr. G. W. Burton, Mitchell, Indiana; Mr. R. J. Godlee, London; Mr. R. Davy, London; Dr. Gavin Milroy, Richmond, Surrey; Mr. George R. Jesse, Henbury; Dr. Wallace, Colchester; Mr. T. Stokes, Nailsworth; The President of the Royal College of Physicians of London; Mr. C. N. Webber, London; Dr. Jervis, London; The Registrar-General, Edinburgh; Mr. H. E. Armstrong, Newcastle-on-Tyne; Dr. W. Strange, Worcester; Dr. A. B. Steele, Liverpool; Dr. Edis, London; Dr. F. E. Anstie, London; Mr. T. Spencer Wells, London; Dr. Sparks, London; Mr. J. Chatto, London; Dr. H. Carter, London; Mr. J. W. Grover, London; Mr. T. Browett, Coventry.

BOOKS AND PAMPHLETS RECEIVED—

Clarke's Autobiographical Recollections of the Medical Profession—Clay's Handbook of Obstetric Surgery, third edition—Steele's Mortality of Maternity Hospitals—Report of the Medical Officer of Health on the Sanitary Condition of Newcastle-on-Tyne—Supplement to the Returns of the Births, Marriages, and Deaths Registered in Scotland during 1873—Nairne on the Human and Divine Ideas—Sercombe's Address delivered at the Odontological Society.

PERIODICALS AND NEWSPAPERS RECEIVED—

Lancet—British Medical Journal—Nature—Medical Press and Circular—Pharmaceutical Journal—Berliner Klinische Wochenschrift—Centralblatt für Chirurgie—La France Médicale—Bulletin de l'Académie de Médecine—La Tribune Médicale—Le Progrès Médical—Gazette Hebdomadaire—Allgemeine Wiener Medizinische Zeitung—Gazette Médicale—Northampton Herald—Kensington News—Indian Medical Gazette.

APPOINTMENTS FOR THE WEEK.

June 13. *Saturday (this day).*

Operations at St. Bartholomew's, 1½ p.m.; King's College, 2 p.m.; Charing-cross, 2 p.m.; Royal Free, 9 a.m. and 2 p.m.; Hospital for Women, 9½ a.m.; Royal London Ophthalmic, 11 a.m.; Royal Westminster Ophthalmic, 1½ p.m.; St. Thomas's, 9½ a.m.

15. *Monday.*

Operations at the Metropolitan Free, 2 p.m.; St. Mark's Hospital for Diseases of the Rectum, 2 p.m.; St. Peter's Hospital for Stone, 3 p.m.; Royal London Ophthalmic, 11 a.m.; Royal Westminster Ophthalmic, 1½ p.m.

Royal College of Surgeons of England, 4 p.m. Professor Holmes's Lecture "On the Surgical Treatment of Aneurism in its various forms."

16. *Tuesday.*

Operations at Guy's, 1½ p.m.; Westminster, 2 p.m.; National Orthopædic, Great Portland-street, 2 p.m.; Royal London Ophthalmic, 11 a.m.; Royal Westminster Ophthalmic, 1½ p.m.; West London, 3 p.m.

London Anthropological Society, 8 p.m. Meeting.

Statistical Society, 7¾ p.m. Meeting.

17. *Wednesday.*

Operations at University College, 2 p.m.; St. Mary's, 1½ p.m.; Middlesex, 1 p.m.; London, 2 p.m.; St. Bartholomew's, 1½ p.m.; Great Northern, 2 p.m.; St. Thomas's, 1½ p.m.; Samaritan, 2½ p.m.; King's College (by Mr. Wood), 2 p.m.; Royal London Ophthalmic, 11 a.m.; Royal Westminster Ophthalmic, 1½ p.m.

Royal College of Surgeons of England, 4 p.m. Professor Holmes's Lecture "On the Surgical Treatment of Aneurism in its various forms."

18. *Thursday.*

Operations at St. George's, 1 p.m.; Central London Ophthalmic, 1 p.m.; Royal Orthopædic, 2 p.m.; University College, 2 p.m.; Royal London Ophthalmic, 11 a.m.; Royal Westminster Ophthalmic, 1½ p.m.; Hospital for Diseases of the Throat, 2 p.m.

19. *Friday.*

Operations at Central London Ophthalmic, 2 p.m.; Royal London Ophthalmic, 11 a.m.; South London Ophthalmic, 2 p.m.; Royal Westminster Ophthalmic, 1½ p.m.; St. George's (ophthalmic operations), 1½ p.m.

Medical Microscopical Society, 8 p.m. Mr. J. Needham, "On Osteo-Sarcoma."

Royal College of Surgeons of England, 4 p.m. Professor Holmes's Lecture "On the Surgical Treatment of Aneurism in its various forms."

VITAL STATISTICS OF LONDON.

Week ending Saturday, June 6.

BIRTHS.

Births of Boys, 1151; Girls, 1082; Total, 2233.
Average of 10 corresponding years 1864-73, 2073·5.

DEATHS.

	Males.	Females.	Total.
Deaths during the week	636	621	1257
Average of the ten years 1864-73	676·5	614·0	1290·5
Average corrected to increased population	...	...	1420
Deaths of people aged 80 and upwards	...	...	42

DEATHS IN SUB-DISTRICTS FROM EPIDEMICS.

	Population, 1871.	Small-pox.	Measles.	Scarlet Fever.	Diphtheria.	Whooping-cough.	Typhus.	Enteric (or Typhoid) Fever.	Simple continued Fever.	Diarrhœa.
West	561359	...	6	2	1	5	1	...	1	5
North	751729	...	14	8	3	10	...	4	1	7
Central ...	334369	...	8	4	...	3	1	...	1	...
East	639111	...	3	10	...	5	1	...	2	7
South	967692	...	13	8	3	10	5	4	2	3
Total	3254260	...	44	32	7	33	8	8	7	22

METEOROLOGY.

From Observations at the Greenwich Observatory.

Mean height of barometer	30·000 in.
Mean temperature	63·3°
Highest point of thermometer	83·7°
Lowest point of thermometer	47·0°
Mean dew-point temperature	51·9°
General direction of wind	W.S.W.
Whole amount of rain in the week	0·81 in.

BIRTHS and DEATHS Registered and METEOROLOGY during the Week ending Saturday, June 6, 1874, in the following large Towns:—

Boroughs, etc. (Municipal boundaries for all except London.)	Estimated Population to middle of the year 1874.*	Persons to an Acre. (1874.)	Births Registered during the week ending June 6.	Deaths Registered during the week ending June 6.	Temperature of Air (Fahr.) Highest during the Week.	Lowest during the Week.	Weekly Mean of Mean Daily Values.	Temp. of Air (Cent.) Weekly Mean of Mean Daily Values.	Rain Fall. In Inches.	In Centimetres.
London	3400701	45·1	2233	1257	83·7	47·0	63·3	17·39	0·81	2·06
Portsmouth ...	120436	26·8	79	38	...	...	...	...	0·10	0·25
Norwich ...	82257	11·0	54	34	80·5	48·5	61·1	16·17	0·33	0·84
Bristol	192889	43·3	139	88	73·3	48·0	59·7	15·39	0·01	0·03
Wolverhampton ...	70896	20·9	59	23	77·9	46·7	60·3	15·72	0·00	0·00
Birmingham ...	360892	43·0	288	138	75·0	49·2	59·5	15·28	0·04	0·10
Leicester	106202	33·2	58	38	79·5	48·0	61·7	16·50	0·02	0·05
Nottingham ...	90894	45·5	64	33	82·2	43·9	60·4	15·78	0·01	0·03
Liverpool	510640	98·0	389	264	68·6	49·4	57·4	14·11	0·05	0·13
Manchester ...	355339	82·8	322	217	...	...	...	...	...	...
Salford	133068	25·7	132	73	74·7	42·7	58·9	14·94	0·01	0·03
Oldham	86281	18·5	64	46	71·0	...	...	...	0·01	0·03
Bradford	163056	22·6	150	78	72·2	48·2	60·0	15·56	0·01	0·03
Leeds	278798	12·9	198	141	76·0	47·0	61·2	16·22	0·03	0·08
Sheffield	261029	13·3	227	121	77·0	46·0	60·7	15·94	0·03	0·08
Hull	130996	36·0	104	38	77·0	40·0	60·3	15·72	0·08	0·20
Sunderland ...	104378	31·6	86	37	...	...	...	...	...	...
Newcastle-on-Tyne	135437	25·2	97	62	72·0	50·0	57·6	14·22	0·00	0·00
Edinburgh	211691	47·8	131	82	74·4	45·3	59·9	15·50	0·00	0·00
Glasgow	508109	100·4	377	277	...	...	...	...	...	...
Dublin	314666	31·3	175	139	71·9	37·1	56·3	13·50	0·04	0·10
Total of 21 Towns in United Kingdm	7618655	36·6	5426	3224	83·7	37·1	59·9	15·50	0·10	0·25

At the Royal Observatory, Greenwich, the mean reading of the barometer last week was 30·00 in. The highest was 30·30 in. on Thursday morning, and the lowest 29·78 in. at the beginning of the week.

* The figures for the English and Scottish towns are the numbers enumerated in April, 1871, raised to the middle of 1874 by the addition of three years and a quarter's increase, calculated on the rate which prevailed between 1861 and 1871. The population of Dublin is taken as stationary at the number enumerated in April, 1871.

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ORIGINAL LECTURES.

LECTURES ON CERTAIN CLINICAL VARIETIES OF CONSUMPTION.

DELIVERED AT THE HOSPITAL FOR CONSUMPTION AND DISEASES OF THE CHEST, BROMPTON.

By JAMES E. POLLOCK, M.D., F.R.C.P.,
Physician to the Hospital.

(*Continued from page* 611.)

If a deposit take place in the lung, it may, as you are aware, remain quiescent for many years, during which the subject of it may enjoy tolerable health, especially if he be careful in his habits. Indeed, he may live to die of some other quite different disorder. But he carries with him in all climates the liability to congestive lung attacks, during which he is feverish, wastes, and perhaps has hæmoptysis. At such times the physical signs, which had been only a shade of dulness, harsh breath-sounds, and long or tubular respiration, pass into crackle or even moist crepitus. This alteration of sounds is due to inflammatory congestion, and is removable. It may, indeed, recur many times before a permanent crepitant sound is established in the lung. In the interval when the moist sounds are, so to speak, dried up, the patient looks and feels better, gains weight, loses fever, and expectoration often ceases altogether. I have noted 266 cases of chronic deposit in the lung which had not undergone softening. On leaving hospital 62 were better, seventy-two worse, of whom seven died, and 132 remained stationary. They had all already attained a duration over eighteen months. Of these 147 were males, and 119 females. Such cases are termed *arrest* of phthisis. I have observed them to run on either into chronic phthisis, or to remain to old age, when the deposit often breaks up, and senile phthisis in a rapid form exhausts the patient. The deposit may also become calcareous and the patient expectorate chalky matters with occasional streaks of hæmoptysis. Calcareous matters are seen in half of all the bodies of the old examined at Chelsea Hospital. Rogée, at Salpétrière, found them in fifty-one instances out of 100 female patients over sixty years of age. In the inferior animals this transformation is very common; in fowls it is the ordinary result of tubercle. Dr. Crisp lately exhibited large masses which were in fact casts of the lung structure.

The stage of softening is well worthy your study. It is hastened or retarded, not only by the nature of the deposit in the lung, but by its distribution, either in masses or scattered small groups. Inflammatory products influence this process probably more than any other agent. The common physical conditions are—masses of caseous pneumonic origin in the apex of the lung, great block of perivascular tissue by adenoid growth cutting off or strangling the nutrition of the part, and yellow or grey granulations in masses.

A high degree of pyrexia prevails, with daily exacerbations, the temperature running up to 103° and 106°, with a diurnal morning fall. Crepitant sounds spread downwards towards the base of the lung. They are preceded, as it were, by clicking musical notes, and occasionally by pleural friction-sounds, showing that every tissue of the lung is engorged. Patches of dulness, with bronchial voice and blowing, are speedily followed by fine crepitation; and so the destruction of more or less lung-tissue occurs, and the patient is greatly reduced. Although even here we may have a pause in the morbid phenomena, I need not say that the issue of such cases is generally fatal; for in the whole history of consumption there is no agent so important in hastening the destructive progress of the disease as the surrounding irritation of the lung-tissues.

Another Variety of Phthisis tending to Chronicity.

When the morbid changes occurring in the lung, which are manifested by crepitant sounds, are *spread over a large extent of pulmonary space*, instead of being massed together at the apex, they constitute a peculiar class of disease which I believe that I have been the first to describe. This class of case tends to great chronicity, and has peculiar characters—1. Generally the chest is large and well made; the movements are either impaired over a large surface of one lung, or they are good and the chest expansion uniform. 2. Flattening occurs, if at all, over a large space. 3. Moderate dulness of the same diffused slight character. 4. Signs of deposit or of softening less concentrated than in ordinary phthisis; spread over a larger surface; not shading off uniformly from apex to base.

The chest in such cases is generally large and well-made. The movements are either good, and the expansion excellent, or else they are impaired over a large surface of one lung. In like manner, flattening of the walls, if it occur at all, is slight and over a large space. There is moderate dulness of the same diffused character. The signs of deposit or of softening are less concentrated than in ordinary phthisis, and do not shade off uniformly from apex to base. Tubular blowing respiration, if heard at all, is only in patches of limited extent. There is a more crackling character and more dry tone of crepitus than in ordinary phthisical deposits. Occasional pleural friction-sounds occur.

No doubt a sparse, irregular deposit pervades a large extent of lung, and interferes but slightly with breathing space. This class has the history of phthisis—the occasional hæmoptysis, occasional hectic, and wasting. They also have the hereditary predisposition.

In by far the larger proportion, the disease was in both lungs, and in five-eighths the signs were of the second stage. It is more common in males, in proportion of two and a half to one, and age from thirty to fifty, in females from twenty to forty.

The invasion of this form of disease is often acute, but symptoms subside, and quiescence is obtained (chronic second stage). A profuse hæmoptysis sometimes converts such a case from the second into the third or cavity stage; but cavity is rare, never circumscribed, and is always of anfractuous character. The lung breaks up in many parts at once, and dyspnœa is the great symptom. Dissection shows very extensive adhesions of pleura, and pleuritic attacks are very common during life. The patient is very free from chances of pneumothorax and pleuritic effusions. Fever is often absent for months together, and the digestion remains good. It is to be noted that the prognosis for time is good in this class.

The *third stage* of phthisis may be said to be reached when masses of tubercle have softened in such a manner as to cause considerable destruction of lung-tissue, and give rise to the physical signs of cavity; such are (1) cavernous blowing, (2) gurgle, more or less fluid, and (3) vocal phenomena. Of course every single tubercle if softened would form a cavity, but an aggregation of softening masses is implied in the term. Cavity is generally one-sided—indeed, always so at first, and, as you know, is generally situated at the apex.

I have seen a cavity formed in six weeks from the onset of the disease, and in two months thirteen cases of rapid consumption had reached the third stage. I cannot say with certainty which lung is more rapid to form cavity, but I believe the *left*; and Dr. Cotton and Dr. Walsh agree in this opinion. The signs of softening generally begin at the posterior part of the apex, which should always be examined. Cavity signs are earlier detected here than in the subclavian region.

The nature of the cavity formed is influenced by the integrity of the portion of lung intervening between the masses undergoing softening changes. When masses coalesce, the intervening portion of lung undergoes ulcerative destruction or absorption. It is this which renders formation of cavity perilous. Were each tubercle to soften separately and the deposit to be much diffused throughout the lung, we should have the disease in a different form and less systemic disorder. Their aggregation is a necessary condition to the formation of cavity. With great massing and isolation of the morbid product, although we should expect a large cavity, we may have a residual portion of lung comparatively free. When the diffused condition prevails, and, at the same time, large masses of adenoid or caseous tissue are near the apex, we have on their breaking up an irregular portion of lung destroyed without attempt at insulation. Instead of condensed tissue, the product of more or less inflammatory action, underneath such a cavity, we have other masses less advanced towards softening, possibly granulated grey deposits surrounded by infiltrations, which strangle the nutrition of the parts, and are ever ready to undergo destructive changes, which involve a further portion of lung in their disintegration. An irregular anfractuous cavity is the result, often burrowing deep into the pulmonary tissues. This is the common termination of consumption. Not only there is a certain continuity of diseased *action* from first to last of the case, but there is continuity of the diseased products from apex to base, and by mere mechanical extension a spreading

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ulcer is formed, resembling rather certain phagedænic affections of cellular structures in unhealthy constitutions than any purely visceral inflammation. In fact, the integrity of the intervening portions of the lung is the measure of the progress of the case. A lung even extensively infiltrated, but with large portions of healthy pulmonary tissue intervening, is slow to undergo the softening changes which destroy surrounding parts; and this is the condition—often very chronic—which I have been describing as "*diffused deposit*." A lung studded with tubercles, massed together so near as almost to run into one another, and with a repetition of deposits, is the condition most favourable to the formation of anfractuous irregular cavities; while a single massed but isolated deposit at the apex, with the rest of the lung clear, affords the greatest likelihood of forming a circumscribed cavity. The irregular, burrowing cavity is the most perilous and the most frequent. Few die without reaching this stage. In 556 cases of phthisis dying in the hospital, a post-mortem examination showed that more than 500 had cavity (one or more) of the irregular form, generally in both lungs.

Not all cases of irregular cavity are rapid. Their formation is not the result of a single morbid action, but of a gradual and repeated extension, renewed softening, fresh deposits of grey tubercle, and often long remissions. Their chronicity depends on cessation for the time of irritative action, and, of course, on partial recovery of the nutrition processes in the patient.

Limited cavity remains to be noticed, and it has very interesting conditions. This excavation is bounded, as it were, by walls of thickened tissues, the result of sub-inflammatory actions, which must be considered conservative in their influence on the progress of the disease. On dissection, fibrous tissue is found to be condensed and impermeable below the cavity. The pleura is thickened, covering the diseased apex as with a cap, and dense adhesions tie down the lung, while prolonged fibrous bands extend through its tissues. When excavation is complete, the bloodvessels and bronchial tubes extending across the cavity become shrunken and impervious, and the sac itself is slowly lined with a membrane. These cavities rarely break up in their outlines. When extension of disease occurs it is in the opposite apex or base, and the original provisions for the safety of the individual with a first attack of excavation remain to attest the conservative resistance made to disease.

This form is more commonly seen in right apex. Great constitutional disturbance occurs during excavation—hectic, high temperature, sweatings, and rapid pulse; but fever subsides when the cavity has formed. I have now had the opportunity of watching many patients through this stage, and having witnessed the most extreme emaciation and suffering, have observed a gradual restoration of some to the condition of perfect health, while others have tolerated a chronic cavity for many years with very fair health. The deposit so prone to soften with great rapidity is probably the result of a caseous pneumonia; but to the formation of abundant fibrous tissue is due the element of safety in the case, for it is by means of the latter that the lung-mischief remains circumscribed for years. To the latter cause is also due the flattening of the chest-walls, the displacement of the heart—sometimes upwards if the left lung be affected, sometimes to the right if the right apex be the seat of the disease. I have now two cases under my observation, to which I shall briefly refer, in which the right and left lung are respectively the seat of limited cavity.

A., when a girl of fifteen, was in 1856 an out-patient under my care at this hospital. She had then been ill for two years with cough and expectoration. There was much dulness, gurgle, and pectoriloquy at left apex for three inches. She was greatly wasted during the formation of the cavity. Next year she lost all fever, took much cod oil and iron, and gradually regained flesh. A marked sinking of the chest-walls occurred in the course of the next year, and the heart-beat was nearly two inches higher than natural. In 1863 cough was very slight; there was scanty morning expectoration. She was in good flesh, colour healthy. She is subject to hæmoptysis to a large extent when overworked, but is mistress of a national school, and fulfils all duties with energy. She has a dry cavity in left lung. In 1874 she weighs over eleven stone, and still fills her post at the school, and has a good clear voice. She has still frequent hæmoptysis. There is quite an excavation of the chest-walls at the left apex, where all the signs of a cavity are still evident. She has been under my observation and care for *eighteen years*.

Here is another case—a male, not so plump as the first. There is a small well-defined cavity in top of right lung, and his heart beats at the sixth interspace on the right side. But there is absence of respiration and contraction of the side under the cavity, and no doubt he had originally a pleuro-pneumonia, with effusion and subsequent absorption of the fluid. He has been ill quite seven years. In all these cases the opposite lung enlarges, and is drawn across the middle line, forming by its wonderful elasticity a compensation for the lost breathing-space which the patient has undergone. I would recapitulate the favourable conditions necessary for such cases. The deposit must be limited in extent; fever must have ceased; temperature and pulse fallen; the age should be over twenty. The male sex are much more frequently the subjects of the tolerated morbid condition. In all cases a pause in the disease is to be waited for before a prognosis is formed. To insure a permanence of the state we are considering, the comforts of life, freedom from anxiety, and, if possible, frequent changes of climate, are highly conducive, if not imperative conditions. *Two cavities* often remain quiescent—always the result of quiet life and good nursing and of a sound digestion. *A chain of cavities* here and there through the lung is sometimes seen, as in "fibrous phthisis." There is great emaciation; the patient lives at a low standard; his nails are livid; and there is commonly clubbing of finger-ends and sometimes of toes. Note in these cases the great fixity of chest-walls and flattening over a large space. Great atrophy and contraction of lung occur. A sudden hæmoptysis or a congestion of the remaining portions of lung generally end such cases.

I might have much to say about *digital clubbing* in phthisis. It is peculiar to the stage of cavity, but is seen, as you know, in chronic empyema and certain obscure cardiac cases. In forty-six of my cases, thirty had cavity in the lung; but it is not often seen in circumscribed cavity. Mr. Edwards' tables give 654 cases, of which 29 per cent. were males and 23 females. In 2430 cases of chronic phthisis, clubbing was observed in 27 per cent.

The term fibroid phthisis has been so much used of late to describe a specific form of disease as to require our careful consideration. I am not disposed to accord it a separate clinical classification, believing that under this head almost every case of chronic phthisis is to be found—the growth of the fibroid elements, and of the connective tissue of the bronchial and peri-vascular sheaths, causing contractions of the general lung-tissue, and corresponding alterations in the chest-walls, and in the relative position of the heart and opposite lung. The conditions seen on dissection are—1. Contraction and induration of the lung. 2. Great thickening of the pleura, with extension of fibrous bands throughout. 3. Cavities more or less numerous, often at the base or middle portions of the lung. 4. Cheesy masses embedded in the lung, and frequently surrounded or insulated by fibrous tissue.

The conditions of the chest during life are—1. Contraction and great immobility of the whole side. 2. Lowered tone of the percussion-note throughout. 3. Cavernous breathing, or bronchial breath-sounds in parts or patches. 4. A compensatory filling-in of the lost pulmonary space by the opposite lung by the heart being drawn to the affected side, and often by the liver on the right side. For a long time there is a limit of the disease to one lung, but ultimately the opposite lung becomes not unfrequently the seat of grey tuberculisation.

The undoubtedly chronic tendencies of this variety of phthisis stamp it with a character of its own. Those who desire to make it a separate class of disease, discriminate between the shrinking of an ordinary cavity at the apex and the contraction of the whole side in fibrous phthisis; and, although the fibrous element is directly concerned in the former condition, it is the latter and more diffused affection to which the name is limited. In these latter cases the progress of the disease is very slow; for a long time it is limited to one lung, and hectic is absent. The patient lives at a low average of health, and if he be careful may maintain a tolerable state of comfort. The amount of expectoration is small; but, as my colleague Dr. Powell has pointed out, a large open cavity may often exist with free communication with the outer air, and the patient is liable to catarrhal attacks which affect the secretion from the cavity, irritate its lining membrane, and in many instances expose a branch of the pulmonary artery, which often becomes the seat of aneurism and eventually of fatal hæmorrhage. Dr. Powell has also pointed out a clinical fact of interest: that the mechanical conditions of such a cavity have much to do with the production of vomiting.

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In considering this important variety of phthisis and the opinions which have been formed about it, in which there is apparently much contradiction, it may fairly be said that the differences of opinion resolve themselves into the following question: Is the fibroid affection ever primary? Chronic pneumonia finds its issue in a fibroid condition of the lung, as well as catarrhal pneumonia originating in a blocking of the alveoli of the lung; and, in fact, all inflammatory conditions of any portion of the lung-tissue which do not speedily resolve, become fibrous. It is very doubtful whether pleurisy or bronchitis alone can give rise to it without the intervention of lobular pneumonia or tubercle. These cases become later on undistinguishable from ordinary chronic phthisis.

From these considerations I am disposed to range myself on the side of those who deny that fibrous phthisis is ever a primary disease, as we find it in the majority of cases secondary to a basic pneumonia, and proceeding upwards, and in other, but very numerous, instances following the softening of an apex deposit and accompanying the progress of chronic ulcerative changes towards the base of the lung. In its result we can recognise not only a destructive agency, the nutritive vessels of the lung-tissues being strangled by its dense fibrous prolongations and hypergrowth, but also a conservative process by which the lung is contracted and all morbid changes are retarded.

(*To be continued.*)

ORIGINAL COMMUNICATIONS.

ON THE

EXCITING CAUSE OF ENTERIC FEVER,

ESPECIALLY IN RELATION TO THE DUTIES OF MEDICAL OFFICERS OF HEALTH.

By WILLIAM STRANGE, M.D.,

Senior Physician to the Worcester Infirmary, and Medical Officer of Health to the City.

(*Concluded from page 612.*)

Had Robinson Crusoe, or his man Friday, broken out with small-pox after they had resided some year or two on their island, most people would have said that here was an instance of the origin of the disease *de novo*. That kind of intuition which springs from experience would have led them to this conclusion. And yet the conclusion might be questioned. It might be contended that the germs of the disease had been carried across the seas by one or other of them, and lain dormant until a favourable moment had arrived for the resumption of the active state. Or, possibly, the said germs might have been wafted by the winds across the ocean from the nearest land where the disease was at the time prevalent. Now, if we were called upon to decide upon the probability of the truth of either of these hypotheses, I take it that judgment would have to be given upon the results of experience—*i.e.*, circumstantial evidence. Could it be possible, we should ask, for the variolous germs which gave Crusoe the small-pox to retain their powers in a dormant state for so long a period? We have the analogy of scarlet fever, the poison of which, we know, often lies wrapped up in clothing, etc., for months or years. But, then, Crusoe retained very little of his clothing; and all experience is against the idea of the poison of small-pox thus remaining inactive about the person, and then breaking out at an indefinite period. So we turn to the other alternative. The infection must have come across the ocean, wafted by the winds from some source—perhaps thousands of miles away. But here, again, the same reply suggests itself. What does experience say to such a supposition? No such thing has ever been known; for, were it possible, surely the continents and islands where small-pox had never been known until the adventurous voyager carried the deadly pest with him along with other appendages of civilisation, would have thus been infected ages before. Nothing would remain for us but to fall back upon the original conclusion, the result almost of intuition, that the disease that afflicted Crusoe *must* have arisen *de novo*, independently of any possible access of contagion. Not at all, it is answered. The supposition—for it is nothing more—is more contrary to all experience than either of the other two. For there are those who deny that small-pox, measles, scarlatina, etc., can ever—in these days, at least—have an independent origin, but *must* always be traced to antecedent similar disease. Others, again—amongst them, I believe, Miss Nightingale,—affirm that they *have seen* measles, scarlatina, typhus, etc., springing up *afresh* amongst a crowded and filthy population, where it was not possible for any infection to have been traced. The one party is as much endeavouring to prove a negative as the other; and, certainly, the latter has the best of the argument; for, since these diseases must once have had an origin *de novo*, why not again, and again?

But then we are told that one of these must be right. There can be but one mode of origin, whichever that may be. It is unphilosophical to bring two or more causes into operation to account for a single phenomenon. Is it so? Then so much the worse for philosophy. For what says experience again? What of the mode of origin of those true congeners of typhoid—erysipelas, diphtheria, and dysentery? Have not each of these at least a *double* origin? Do we not constantly see erysipelas arise in our hospitals and asylums from overcrowding, and do we not also afterwards see it propagated and continued by contagion? Only the other day I saw opened the filthy house-drain, which gave diphtheria to three children who had been exposed to no other source of the disease. They were removed to a fresh, clean house, where they all died. Their bedding was taken into the next cottage to be washed, and the child of the woman who washed it, and who was known to have come into contact with this bedding, caught the disease, and died of it. Here we had first the pythogenic origin of diphtheria, the usual one; then the contagious origin of it, the secondary one. The same thing is seen every day, as I have said, with erysipelas; the same, I believe, with enteric fever—a trio much more nearly related than are the true exanthemata with enteric fever.

I will presently examine the analogies (so called) existing between enteric fever and the true exanthemata, and see if they hold good to the extent affirmed by Dr. Corfield and those who agree with him in this matter. But first let me illustrate the kind of evidence which induces me—and, I imagine, the great bulk of medical practitioners—to believe that in ninety-nine cases out of every hundred of enteric fever the origin is not from any germ or contagium derived from the intestines of some person ill of the same disease, but, as Dr. Murchison terms it, pythogenic—that is, bred of a poison generated in decomposing or putrid animal matter, chiefly when dissolved or suspended in water; and which, exhaling into the atmosphere, enters the lungs or is taken into the stomach in drinking-water. There, possibly, it multiplies and generates a true contagium, which, when it is added to sewage matters, or to drinking-water—*especially if the latter be also foul*,—becomes a still more virulent poison, or else the same poison in a more active state than that which, generated pythogenically, first induced the fever.

Very many years ago, in a school under my cognisance in a small country town, twenty-six pupils, out of a total of about sixty-five, were attacked by enteric fever, all within a few days of each other. The school was dismissed. On reassembling the next half, it was not found (although the evidence of this could not be considered very exact) that anyone, nurses or friends, except the boys actually at the school, took the disorder. The cause of the outbreak was a series of very filthy privies in which the boys were in the habit of congregating. These privies were totally unconnected with any drain, and no one, except the boys, was in the habit of using them, nor was there, nor had there been, any case of the fever in the town or neighbourhood for years. The curious thing was that the fever was generated at the beginning of a half-year, when the contents of the privies had been undisturbed, and had had time to get stale, and for ulterior changes to take place in them.

In the year 1869 a violent outbreak of enteric fever took place at a healthy village near this city. In a row of cottages, about twenty-eight in number, there were upwards of twenty cases, and several deaths. There was no drainage attached to the cottages; they had, for about every two houses, a privy and cess-pit. These privies becoming foul, the owner of the cottages had them all attended to at one time, the contents being thrown into a heap at the back of the cottages, and allowed to remain for some days in exceedingly hot weather. There was no drain or sewer, nor other means by which the enteric contagium could have passed from house to house, and no person ill of the disease had been known to arrive there.

If it be said that some person affected with the disease might have used one of these privies, and that the contagious germs from his intestines had thus had an opportunity of

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exhaling into the atmosphere when the night-soil was disturbed, and so infecting the inhabitants, how is it that, when we have these very germs bodily in the bed-pan in the sick-chamber, they do not exhale in like manner, and infect the nurses and friends of the patient? Is it not far easier to believe that the poison was here generated *de novo* by the action of the sun and atmosphere upon this putrid mass of fæcal matter; and as the mass exposed was great, so the quantity and virulence of the resulting poison was great?

But, whichever theory may best explain the circumstances of this outbreak, that the poison was volatile and existed in the atmosphere was positively certain from the following fact. At the time this outbreak was taking place, I received into the Infirmary a servant-girl suffering from enteric fever, who had been living with a family in a fine open square of this city. On questioning the girl, I found that she had visited this village for the purpose of attending the funeral of her father, who had died of the disease. I ascertained that she had remained in her late father's house and in the open air adjoining for about two hours. She did not see her father, the coffin having been screwed down when she arrived. She neither ate nor drank during her visit; but she perceived in the house, and in the neighbourhood of it, a most sickening smell, which she could not get rid of after her return home. If this girl's attack, which lasted six weeks before defervescence was fairly established, were owing to germs or a contagium floating in the atmosphere, and derived *directly* from the intestines of some other person ill of the disease, how volatile and all-pervading must that contagium be! Yet do we find that it is so? Indeed, Dr. Corfield thinks it may be not more so than a solution of acetate of lead!

But a crucial test is better than probability, even when as strong as that derived from the consideration of such instances as those just adduced, and which might be multiplied by the score out of the experience of those who have seen or observed much of enteric fever in the country. At a large country house at which I once lived, three servants—two living in the house, and one out—were in rapid succession taken ill with undoubted enteric fever. For some time no cause could be discovered, as the house was situate a mile from any other dwelling, large, well drained, and well ventilated, and well supplied with water. Whilst the servants were ill, some of the household complained of the nasty taste of the drinking-water, which was brought to the house from a fine spring on the estate in leaden pipes, and stored in a leaden cistern. The water was noted for its purity throughout the neighbourhood. On examining the cistern several rats were found in it in a state of decomposition, and the atmosphere over the cistern, in a close situation, smelt distinctly of putrefaction. The fact came out that the servants had used arsenic spread on bread and butter for the destruction of the rats, which had resorted to the cistern to allay the thirst caused by arsenical poisoning, and so got drowned. On clearing out the cistern, the illness ceased.

That *rat broth* can thus give rise to enteric fever must, I think, be admitted; and if an infusion of rat, why not that of any other animal, or of animal matter, whether in cisterns, wells, drains, sewers, or ponds—*e.g.*, farm-houses and the cottages about them, which are the favourite habitat of enteric fever?

It would be inexcusable to take up the valuable space of this journal by multiplying instances like those few I have mentioned. One meets every day country practitioners who say that they would believe the exclusive contagium theory of the causation of enteric fever *if they could*, but that the facts are against it; and facts *are* stubborn things, which, when we cannot conquer, we sometimes are fain to evade. But one thing I may say—that is, that had the exclusively contagious theory of this fever been universally recognised as the one and sole cause, so little faith have I in the stability of medical theories as against the observations of the senses, that I would have thrown that theory over unhesitatingly on the occurrence of the rat fever above described. For, after all, theories must be brought to the bar of experience for confirmation or dismissal. The busy practitioner, who has read little of the opinions of others, will be apt to form a strong conclusion from the results of his own observation; whilst the bookish man, without practical experience, on the other hand, will weigh the evidence afforded by a multitude of writers, and probably draw conclusions which, so soon as he has had the opportunity of personal observation, he will repudiate.

Now, there is no readier method of falling into error than by coming to conclusions on the faith of analogies (so-called), for analogies in medicine seldom hold beyond certain points of resemblance. If we take these points of resemblance, and generalise upon them, without correcting our conclusions by their contrasts and opposites, we shall commit what is a very common error indeed, but a very great one. Dr. Corfield and those who agree with him make much of the analogies between enteric fever and others of the zymotic class—viz., small-pox, scarlatina, *et hoc genus omne*. They call enteric fever an exanthem of the intestines. Are there not, they ask, the rash, the febrile condition, the high temperature, the definite duration(?), the affection occurring but once in a life-time, and one attack preserving against another? These are the analogies. Now for the conclusions drawn from them. Small-pox and its fellows are propagated by contagion solely, by special poisons imbibed into and then multiplied in the body, and never—in these days, at least—arising *de novo*, as that would be contrary to the canon of ratiocination, which does not permit of our assigning a double mode of causation when one will suffice to account for the phenomena. Therefore, enteric fever, the analogue of small-pox, is communicated by a special poison, multiplied in the intestines, and carried thence into the system of others, who are never attacked except through the means of this intermediate propagator. Then there is the analogy of the rash. But this rash is often absent, and when present it by no means bears any constant proportion to the severity of the fever. The febrile condition and high temperature must be granted, for at least these diseases are all *fevers*. But what of the definite duration? I have seen enteric fever, whose febrile period is generally some eighteen or twenty-one days, lasting four, five, or six weeks without marked defervescence, or, if this have occurred, the high temperature easily re-induced, and maintained for a period equal to that of the first accession. Now, this does not happen in the case of small-pox or scarlatina. In those it is the sequelæ, not the original febrile symptoms, which show such chronicity.

Then the affection of the mucous glands of the intestines has been likened to the exanthema of variola, etc. But in many cases we have but slight evidence of a serious affection of those bodies, nor can their ulceration be taken, without a great strain, to have more than a very distant resemblance to the rash of measles or the pustules of variola. Nor can the fact of typhoid occurring, as a rule, only once in life prove anything more than that, *as a fever*, it has that character with some others, but not with all, typhus being clearly an exception.

I will glance now at the distinctions and oppositions of character between enteric fever and the exanthemata in regard to the mode of action of its contagium, supposing there to be one. The contagious principles which generate small-pox, scarlatina, measles, etc., are, without doubt, solid, portable substances, exhaled from the person of the sick, and carried about by clothing or other substances, whence they are imbibed by the skin or lungs of the recipient. But the *materies morbi* of enteric fever does not act thus. The nurses and attendants upon the sick neither imbibe it by the skin nor inhale it by the lungs. The advocates of the contagium theory assume that it is too heavy for this. They admit, also, that, to become active, it must either have been added to fæcal or other putrid animal matters, or to drinking-water—which, by the way, is generally polluted with sewage-matter. Even given these conditions, the existence of the special poison is generally only inferred from its effects; and, although I by no means deny the existence of such a contagium, many will say that most of the cases, where the action of a specific poison is presumed, may be more easily accounted for on the pythogenic theory.

The only logical conclusion is that enteric fever is a disease having certain resemblances to the pure exanthemata—small-pox and the rest; but with differences which are specific, if not generic. Amongst these may be mentioned the lengthy and very various prodromata, the uncertain duration and frequent recurrence of the febrile symptoms, and the want of harmony between the severity of the general symptoms and that of the intestinal lesion.

As to the exciting cause, authorities of equal weight, and equally modern, attach different degrees of importance to certain observed facts, the only mode of reconciling which will be found in acknowledging *at least* a twofold origin and propagation of the disease in question, or, rather, of a primary and a secondary cause. And I think it is a fact that the witnesses to the generality of the pythogenic, or, as we say,

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the *de novo* origin of the disease, very largely outnumber those who pin their faith to an exclusively contagious origin. The larger number affirm that it is impossible to ignore, for the sake of a taking theory, the evidence of their senses; the smaller number say, We can *prove* the presence of an active contagium in *some* cases; we believe it to be present in all. *Voilà tout!*

One word on the bearing of this question upon the action to be taken and the advice to be given by medical officers of health in the discharge of their very responsible duties in regard to the prophylaxis of enteric fever. How can I—who have never, in any single case occurring in this city which has come under my cognisance during twenty years, been able distinctly to trace it to the operation of a contagious element—be content with recommending people to take especial care to disinfect and destroy the discharges emanating from any patient who may have enteric fever? To lay the chief stress upon this mode of propagating the disease would be to reduce the usual pythogenic action of fæcal matter to less than its due importance. I am bound, therefore, whilst not neglecting to see that the discharges are properly dealt with, to enforce every precaution against the pythogenic origin of the disease. These precautions I take to be the disuse, as far as practicable, of all well-water in thickly populated places; the ventilation of all sewers, drains, privies, and water-closets, and the shutting off of the gases contained in any of these structures from entering any dwelling-house or work-room; and, generally, of preventing the lodgment of *any fæcal or other animal matter for more than a few days* in any such places; and, lastly, to make war to the death against the hideous privy and ash-pit system, which is the chief means of carrying pestilence into the atmosphere of our towns, and the main cause of that excessive amount of infant mortality by which they are disgraced. And this course I would take the liberty of recommending for adoption to my brother medical officers of health.

Worcester.

THE VOCAL ORGANS IN LIVING CENTENARIANS.

By Sir G. DUNCAN GIBB, Bart., M.D., LL.D.

THE following communication was brought before the Physiological Department of the Biological Section of the British Association for Advancement of Science at the Bradford meeting in September, 1873:—

The condition of the larynx and other vocal organs in persons who have reached the great age of a hundred years must prove a subject of interest to the physiologist, more especially when it has been determined during life; and as we have the record of very few examples of examination after death, from which any satisfactory conclusions can be drawn, I venture to offer some observations that are worthy of being placed upon record, as showing at any rate that some of the old-fashioned theories relating to the changes in extreme old age cannot be maintained without some modification.

At the meeting of the British Association in Edinburgh in 1871, I contributed a memoir upon centenarian longevity, founded upon an examination of four living centenarians, in which I briefly touched upon the vocal organs. Shortly after that meeting I saw two others in Scotland; and in March, 1872, I read a paper before the Anthropological Institute upon the physical condition of centenarians, derived from an examination in six instances; and whilst that paper was passing through the press the opportunity was afforded me of seeing three others, making a total of nine undoubted examples. With that number, therefore, I thought I could venture upon some remarks with confidence, and draw a comparison as to the condition of the vocal organs in all. What shall now be given is the result of my matured observation upon the whole number.

Lest, however, any objection should be taken to the accuracy of the ages in my nine examples, it is desirable that I should state beforehand who the persons were, when they were seen by me, and in what part of the country they lived; likewise the dates and places of their birth, as carefully and accurately obtained as possible, either by myself or through the aid of friends upon whom I could rely. Without this, my observations perhaps would not have the weight they are entitled to.

It is right to state, also, that the record of the birth of No. 2 was not verified, owing to obstacles at first thrown in the way of my examination; and, unfortunately, the only person who could have furnished me with the name of the place of his nativity was the old man himself, who has since died. Nevertheless, I am quite satisfied of his being a centenarian from his physical condition and general appearance, and trust eventually to be able to clear up what seems uncertain.

The only person I had any doubt about was No. 7, yet she was exceedingly intelligent, and told me that she was not 104 years of age as stated in the newspapers on authority, but 102; and her memory and knowledge of things was so clear that her statements seemed reliable. Thus, far, however, I have failed to find a record of her birth in any of the churches contiguous to where she was born. I am still prosecuting my inquiries relating to her.

The following are those who came under my personal observation:—

1. Jacob William Luning, aged 102, examined by me at Morden College, Blackheath, with the kind permission of the Hon. and Rev. John Harbord, the chaplain, on July 4, 1869. He was born at Hamelvorden, in Hanover, on May 19, 1767, and died on June 23, 1870, aged 103.

2. Henry Eldrich or Mace, aged 104, examined by me at 8, North-street, Rosemary-road, Peckham, on December 28, 1871, being brought under my notice by E. A. Conwell, Esq. He was born in the county of Berkshire (and not of Gloucester, as had been stated) on July 3, 1767, and died on July 29, 1872, aged 105.

3. Elizabeth Brown, aged 101, examined by me at the Paddington Workhouse on October 3, 1869. She was born at Hemstead, Norwich, in September, 1768, and died in the workhouse above mentioned on December 6, 1869.

4. Mrs. Ann Hogg, aged 100, examined by me at St. George's Workhouse, Fulham-road, on September 2, 1869. She was born at Rosskeen, county of Ross-shire, August 2, 1769.

5. Miss Ann Wallace, aged 101, examined by me at the residence of her nephew Mr. Wm. Crichton, at 18, Allan-park, Stirling, on August 5, 1871. She was born in the Barony Parish of Glasgow, on July 1, 1770, and died at 17, India-street, Glasgow, on February 24, 1873, aged 102½ years.

6. Mrs. Mary Paterson, aged 101, examined by me at Stoney Meadow, in company with my friend Dr. Muirhead, of Cambuslang, near Glasgow, on August 17, 1871. She was born at Carmannock, near Glasgow, October 3, 1770.

7. Sarah Skelton, aged 102, examined by me in Bond-court, Walbrook, City of London, on April 10, 1872. She was born in that court on May 24, 1770, and died some months after I saw her.

8. Susan Debenham, aged 103, examined by me in the workhouse at Sudbury, Suffolk, in company with my friend the Rev. Herbert Smith, on May 20, 1872. She was born at Melfort, June 15, 1768, and died at Sudbury in 1873, after attaining her 104th birthday.

9. Mrs. Ann Slocomb, aged 100, examined by me at Surman's Almshouses, Isleworth, on May 30, 1872. She was born at Send, near Guildford, on April 17, 1772, and died on March 23, 1873.

Of the nine centenarians thus examined two were males and seven females, but no reliable conclusion could be arrived at as to the relative frequency of the sexes who attain to such a great age from so small a number. It will be observed that these persons were seen only on one occasion, and the most was made of my visit. No objection occurred to my examination when the intelligence of the good old folks was appealed to; there was a little difficulty perhaps with Luning and Susan Debenham, but on the whole the general results were satisfactory. Every one of them entered into conversation. It must be remarked, however, that it is by no means an easy matter to examine persons who have attained to such an extreme age; for, although the faculties were perfect, or seemed to be so, there was a certain amount of timidity to overcome, such as occurs in children, which required management. In using the laryngeal mirror some pains were necessary to explain beforehand what was wanted, and the idea of its introduction was not relished. The examination, therefore, was speedy, and had to be dexterous, and less difficulty was experienced than at first sight was anticipated. The external organs shall first be noticed, then the internal, and finally the conclusions arrived at.

The Thyroid Cartilage.—This was more distinctly prominent in the two males than in any of the females, as might be

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expected. It was larger and broader in Eldrich than in Luning, not unduly expanded in either, was freely movable, and not hard and unyielding, as is sometimes seen in persons between sixty and seventy. In fact, on very slight pressure there was an amount of resiliency that pointed to cartilaginous flexibility in both wings of the cartilage, especially in their upper thirds. Their muscular coverings seemed to be attenuated. On moving the cartilage from side to side there was felt the unmistakable sensation of cartilage gliding over cartilage, showing that anchylosis had not occurred, and that calcareous transformation had not extended to the articulating surfaces. The same conditions were present in all the females; the thyroid cartilage was more fully developed, larger, and more expanded in Hogg than in any of the others; whilst it was smaller in Wallace, who was perhaps the smallest person of all the centenarians.

The *Hyoid Bone* was readily felt in all, and on grasping it with the finger and thumb, no swelling of any kind, nor the kernel of any gland, was felt, corresponding to the situation of the thyro-hyoid ligament; nor were the pulsations of the carotids unduly felt, as is sometimes the case, especially when their coats are becoming affected with calcareous deposits. On elevating the head, the thyro-hyoid membrane expanded to its full breadth.

The *Cricoid Cartilage* was, perhaps, more distinct in some than in others, but it was found to rotate with the thyroid, and gave the sensation of cartilaginous gliding already mentioned. The rings of the trachea were compressible, both anteriorly and laterally.

Laryngeal inspection with the mirror had to be done quickly, and a ready view of the larynx was afforded, owing to the normal position of the *Epiglottis*, which was vertical in every one. The laryngeal surface of the cartilage varied in its colour, from the crust-of-bread-like yellow to a bluish and slightly purple yellow—that is to say, the yellow in the last two had a shade of light blue and purple towards the sides. It possessed the expanded leaf-like shape usually seen in health, was thin towards the tip and sides, and lay well up against the tongue.

In Eldrich and in Skelton the vallecule were noticed, but not in any of the others; and it is curious to note that the latter was subject to cough, and the former had not been very well. The arytenoid cartilages were also normal in all, and readily observed; nothing particular requires mention in them, unless that they seemed larger in the two males and in Hogg than in any of the others.

The interior of the larynx was capacious in all; and not only were the vocal cords readily observed, but there was much activity in the action of the thyro-arytenoid muscles, allowing a triangular glottis to be readily seen. That seemed to be the form that it mostly assumed; and this pointed to an active and healthy condition of the muscles themselves, and afforded a good view of the *Vocal Cords* and trachea. Whilst the vocal cords were fairly long in the two males, they were less so in the females, unless perhaps in Hogg, whose voice was louder and more powerful, though clear, than in any of the other females. It was very loud, but tremulous and somewhat cracked, in Luning, whose speech was not very distinct; whilst it was smooth, soft, and melodious in Eldrich, in whom the colour of the vocal cords was a clear white; whilst again in Luning it was of a yellowish tinge, and in Hogg a shade of bluish-white. In all the other females the shade was a greyish-white, if anything rather milky-white in Skelton. Her voice was clear and audible, and she talked incessantly. In Wallace the vocal cords seemed the shortest, with a very compact and beautiful larynx, that would seem to indicate in her a soprano voice when young, and her speaking-voice was soft, melodious, clear, and distinct, though a little fast and child-like. So, also, was it soft, smooth, melodious, and clear in Debenham. In Slocomb the voice was clear and smooth, and some of her words were very distinct; and so was it good, clear, and strong in Paterson; whilst in Brown it was a little tremulous and weak. Hogg's voice could be heard over all the rest of the folks about her.

The chest capacity, judging from the voice, as indicating bellows-power, was good in Luning, Hogg, and Paterson; and I should say not less so in Eldrich from his breadth of chest, although his voice was soft and melodious. The breathing during conversation was not short or hurried in any; indeed, it was slow comparatively, and during the expansion of the chest the ribs moved with the resiliency of ordinary adult life, and the cartilages were observed to separate and yield to the expansile force as is seen in young persons. As the breathing was not at all abdominal, so common in ordinary old age, and as the movement of the ribs and their cartilages was wholly unimpeded, the inference is a fair one that the cartilages had not undergone any alteration by ossific deposit; that is to say, they were not ossified, and could have been as readily cut through with a knife as in persons of the age of twenty-five or thirty. This fact of non-ossification of the cartilages of the ribs in persons of such advanced age is contrary to the doctrine hitherto held by most writers, who have fallen into the error of taking it for granted that they necessarily must have been ossified, because the condition is one so common in persons who die at the age of from sixty to eighty years. The inferences to be drawn from the condition of the vocal organs in centenarians are these:—

Firstly.—That after the age of seventy, if the epiglottis is vertical, and all other things are favourable, there is the possibility of reaching to a great age; and if none of the changes have occurred in the tissues, commonly the result of advanced age, the chances are that a hundred years will be reached. In an examination of 5000 healthy persons of all ages and both sexes, carried over a period of years, the epiglottis was found to be pendant or drooping in 11 per cent., but never in any person who had actually attained to the age of seventy; hence the value of the observation that has been made relating to the vertical position of the cartilage.

Secondly.—Deposition of calcareous or ossific deposit in the cartilages of the larynx is stayed or occurs only to a very moderate extent in all centenarians without exception—a circumstance which is confirmed by examination during life, and likewise after death, as in an instance given by Mr. Canton in his work on "Arcus Senilis," and reproduced in one of my medical works ("Diseases of Throat and Larynx," second edition), wherein a large proportion of the thyroid cartilage was free from any deposit in a man aged 103, beyond what might have occurred during the middle period of life.

Thirdly.—The arterial bloodvessels are found to have undergone no change, comparatively speaking, in centenarians. The heart is likewise healthy and in a normal state, as was found in all the nine persons. This is by no means the case in many persons who only reach to the age of eighty years.

Fourthly.—Ossific deposit in the cartilages of the ribs is absent in centenarians, further confirmed by the case of a man aged 103 at Southampton, described by Dr. Beith, R.N. (*Pathological Transactions*, vol. iii.), for they were cut with a knife as easily as in a young man of twenty.

Fifthly.—The lungs as well as the heart are sound in centenarians; and although it has been my intention to confine my remarks chiefly to the vocal organs, yet the integrity of these last depends much upon the unimpaired power of the lungs, and with the exception of a cough and commencing disease in one person all the others were perfectly sound.

Sixthly.—All the vital functions in persons who approach to or actually attain the age of a hundred years exist in a state of perfection, consequently the organs concerned in them must be equally perfect. Therefore, we find circumstances existing which are by no means the rule in what is commonly known as old age. Henceforth an exception must be taken to the doctrine that such changes necessarily always exist: they do not in centenarians; and it affords an explanation why such persons are enabled to attain to such a great age.

Lastly.—A general similarity exists in the physical condition of all centenarians. We may except, however, the impairment of one or more of the special senses—that of hearing or of sight, for example. But as regards the vocal organs, there is a general uniformity, such as has been shown, especially with their key-stone, the epiglottis, invariably vertical and leaf-like in its shape.

No impediment, therefore, is offered to breathing, and this great essential to life is perfect, and keeps the rest of the machinery in good order. Taking the limit of the age of those persons mentioned in this paper, and of a number of others promiscuously gathered from the newspapers, 103 years seems to be not an uncommon age among centenarians; 104 is frequently reached, and occasionally 105 and 106; but beyond these latter few step, although now and then one will be found to do so, but it must be looked upon as wholly exceptional. In one and all the same physical conditions exist, as has been described, and we thus have an intelligible explanation of the occurrence of extreme old age. It has been demonstrated that the very opposite state of things exists in centenarians to what has been considered all along the rule—

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a rule founded partly on theory, for it had not wholly appealed to facts, else it would have been overturned long ago.

The data which furnish the grounds for some of the foregoing conclusions have been given in previous communications, published elsewhere, relating to centenarian longevity; they have been intentionally excluded from the present paper. Since it was read and discussed at Bradford, a tenth centenarian has come under my observation, who was born at Dover in April, 1763, in the parish register of which place is a record of her baptism. She was married at the same place, and is now of the truly exceptional age of 111 years. She was hearty and well when I examined her at Tring, in Hertfordshire, in October last, and I have reason to believe she is so still. Her inspection fully confirms the views enunciated concerning the nine other centenarians; but as she is unquestionably the most remarkable of all who have come under my notice, and as I am engaged in collecting corroborative evidence confirmatory of her great age, she shall form the subject of a distinct communication at a later period. Her appearance coincides with her great age. Whilst her skin is most extensively wrinkled, almost in folds about some parts of the body, it is yet as soft and smooth as velvet. Her pulse is as regular, soft, and compressible as in a girl of sixteen, and her vocal organs are in perfect condition, with a smooth voice that never seems to tire.

Bryanstone-street, Portman-square.

REPORTS OF HOSPITAL PRACTICE IN MEDICINE AND SURGERY.

NORTH-EASTERN HOSPITAL FOR CHILDREN.

CASES ILLUSTRATING THE USE OF THE PNEUMATIC ASPIRATOR.

(Under the care of Drs. CAYLEY and SANSOM.)

(*Continued from page 645.*)

Case 5.—Empyema—Paracentesis—Apparent Recovery—Relapse—Paracentesis repeated—Relief—Subsequent Sudden Death.

JOHN W., aged 3 years, admitted August 6, 1873, under the care of Dr. Sansom, with the following history:—Previous health very good. Last October he began to complain of sore throat and difficult breathing. Was in bed until February. Was then able to get about, but continued in ill-health until August. Had been under medical treatment more or less for eight months.

State on Admission.—Body emaciated; face pale and anxious; respirations 40 to 50 per minute; pulse 120. Left chest completely dull; no breath-sounds audible.

August 11.—Paracentesis performed behind; eight ounces of very fetid pus evacuated.

13th.—Wound completely healed. Vesicular breathing heard over upper half of left chest at back. In front, fair resonance from clavicle to nipple-line.

23rd.—Paracentesis performed in front. Nearly eight ounces of fetid pus removed.

30th.—Continues better. Occasional loose expectoration, which has a very fetid odour. Front of left upper chest flattened; resonant as far as nipple-level. At back fair resonance except at extreme base; inspiration heard over nearly the whole back.

September 5.—No sputa; very slight cough; flattening progressive.

10th.—There is resonance over the whole front of the chest, and less perfect resonance over the whole back, but no absolute dulness. Respiration good in front, with the exception of a small patch about an inch square near the sternum. The respiration behind is not so good; but air is entering the lung pretty freely.

13th.—Still improving; sent to the Convalescent Home at Croydon.

The child continued to manifest great improvement until the last week in September, when an oval, fluctuating swelling two inches by one inch appeared over the lowest part of the left chest.

On October 8 this was incised, and exit given to an ounce of reddish fetid pus, with some air. Improvement followed. There was good resonance except from the nipple-level downwards. Breath-sounds dry; somewhat blowing over upper lobe; in axilla, good vesicular breathing.

Boy gained flesh and did well until November 6 when he became feverish. Dulness had increased, only the supra-spinous region giving a clear note. Wound still discharged. Temperature 100·4°. He was now given five grains of sulpho-carbolate of sodium three times a day, and the wound was kept dressed with carbolised liniment.

In a week he was much better. Pus escaped freely; resonance had returned. Temperature 99·5°.

November 22.—Wound quite closed. Child plays about and is lively; shows good muscular nutrition. Good resonance over the whole of the left side; respiration dry, rather blowing. The chest, when the patient was discharged, gave the following measurements:—Right side, at base eleven inches, nipple-level ten inches and a half, at axilla nine inches and three-quarters; left side, base ten inches and a quarter, nipple-level ten inches, axilla nine inches and a half. There was enlargement of the liver (probably amyloid). He afterwards went into the country, and whilst there died suddenly.

Case 6.—Hydrocephalus—Paracentesis—Relief—Subsequent Death from Diarrhœa.

Henry H., aged three months, was admitted on July 9, 1873, under the care of Dr. Sansom, with the following history:—A twin child; the other one is quite well. This child was well until a month ago, when it began to vomit the milk and get thinner. Soon after the mother noticed that the child's head began to get larger, and he was almost constantly in convulsions. During the week before admission he had as many as twenty or thirty convulsive attacks a day.

On admission, the child was very emaciated; pupils contracted; almost comatose, but breathing quietly; carpo-pedal contractions. Head large; antero-posterior diameter twelve inches, lateral diameter nine inches and one-eighth; fontanelle bulging. On being awakened, convulsion of eyelids and mouth, more especially on the right side. Paracentesis was performed by means of the aspirator, and four ounces of fluid withdrawn. Wound immediately covered with a pad of lint and strapped down. After the operation the child appeared faint, and a little brandy was given. Very shortly it again became comatose.

July 10.—Child had a few convulsions during the night—otherwise slept well; pupils contracted; head thrown back; carpo-pedal contractions continue.

11th.—No more convulsions; head still retracted; and carpo-pedal contractions continue.

14th.—No convulsions; carpo-pedal contractions ceased; begins to roll on the bed; takes the milk well.

18th.—Attacked with diarrhœa and vomiting; mother has suckled the child until present time.

20th.—Diarrhœa continued until this morning, when the child died. At the post-mortem examination no evidence of puncture in the brain-substance could be found, only a mark in the dura mater visible; ventricles were much distended, and contained eight ounces of fluid; brain-substance softened.

Case 7.—Empyema—Paracentesis on two occasions—Recovery.

This patient, Morris J., aged 4 years, was admitted as an out-patient, under the care of Dr. Sansom, on March 4, 1874. It was thought that the child had had an attack of scarlatina nine weeks before, since which he had suffered from a troublesome cough, and had wasted extremely. On examination it was found that the left side of the chest was dull both behind and in front. Bronchial breathing and râles could be heard all over the chest in front, but only in patches behind, chiefly at the base. The case was diagnosed as one of broncho-pneumonia, and the child attended as an out-patient once a week until April 11. On that day his chest was again examined, and it was found that the left side was absolutely dull, except over the scapula. There was slight bronchial expiration, no vocal fremitus, and the apex-beat was observed to be on the right of the sternum. There was marked bulging of the chest, which gave the following measurements:—Right side—base ten inches, nipple-level nine inches, axilla nine inches; left side—base eleven inches, nipple-level ten inches and a half, axilla eleven inches and a half. The case was now undoubtedly empyema. The child was admitted as an in-patient, and paracentesis performed at once by means of the pneumatic aspirator. Twenty-four ounces of pus were withdrawn. The puncture was made a little in front of the axilla in the sixth intercostal space. It should be stated that an attempt to withdraw the pus from behind failed.

April 18.—Doing well; fair resonance of the front of the

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left chest to level of the nipple, and breathing audible over the upper lobe; heart's apex in normal position; subcutaneous emphysema over the scapula.

21st.—Dulness exists from axilla downwards. Heart's apex beating at the right side of the sternum.

24th.—Condition same as when last observed. It being evident that more pus had collected, aspiration was again performed, and twelve ounces and a half of pus evacuated. Puncture made in the infra-axillary region.

29th.—Progressing well; fair resonance over the whole of the left side; slight respiratory murmur.

May 2.—Breath-sounds normal, and the heart occupies the normal position.

After this date the patient made a good recovery, and was sent to the Convalescent Home at Croydon on May 28.

June 11.—Returned from Croydon quite well, plump and ruddy.

(*To be continued.*)

ST. THOMAS'S HOSPITAL.

CASES OF OVARIOTOMY.

(*Concluded from page 645.*)

Case 2.—Ovarian Tumour—Tapped—Cyst Refilled—Ovariotomy—Peritonitis supervening at the time of Peculiar Atmospheric Conditions.

(Under the care of Mr. WAGSTAFFE.)

E. B., SINGLE, aged 23, but looking very much older, was admitted into St. Thomas's Hospital, under the care of Mr. Wagstaffe, on April 23 of the present year. For four or five years she had been out of health, with biliousness, loss of appetite and of flesh, and frequent sick-headaches. Fifteen months ago, after a fit of indigestion, she noticed her abdomen to be larger, but the swelling was not lateral. The swelling had gradually increased since, with pain in the back and stomach. She was tapped in January of the present year, and sixteen pints of dark fluid drawn off. At the time of her admission the abdomen was much distended, its circumference two inches below the umbilicus being rather more than thirty-six inches; and the cyst appeared to be single. Tongue rather white in the centre; catamenia regular.

May 21.—The usual precautions for thorough disinfection having been taken, chloroform was administered after a subcutaneous injection of morphia. Incision made in middle line about three inches long. Peritoneum gradually exposed and readily distinguished, and tumour seen through it; no fluid in peritoneum; no adhesions. Trocar and canula drew off sixteen pints of dark thick fluid. Cyst emptied and withdrawn; a mass of small cysts in the tumour near to pedicle. Fallopian tube elongated, but not enlarged. Pedicle rather long, and springing from left side, from which side the tumour had arisen. Clamp included Fallopian tube. Cut surface touched with solid perchloride of iron. No escape of fluid into peritoneum; no exposure of patient. Six silver sutures inserted, five including the peritoneum. Wound dressed with carbolised oil; cotton-wool and flannel belt adjusted. After operation, morphia was injected subcutaneously about every four hours, in consequence of the pain due apparently to compression of the Fallopian tube. The morphia was subsequently diminished.

22nd.—Wound healthy. No distension or tenderness; no sickness.

23rd.—After a very close night, she was not so well. There was some slight abdominal distension, and she was sick once, and complained of pain in the right side. The temperature rose to 103·7° during last evening. Carbolic acid was injected subcutaneously every four hours, and ice-bags applied to the abdomen.

24th.—Better. Temperature varying between 99·5° and 101°. In the morning she was free from pain, was looking well, had no sickness, and was taking liquid nourishment well. In the evening she was worse; had one or two rather violent attacks of retching, but the abdomen was not much distended.

25th.—Being decidedly worse this morning, the enema-tube was passed into rectum to relieve flatulence, and later on the recto-vaginal pouch was punctured by a fine trocar, which did not, however, draw off any pus; the pouch was not sensibly distended with fluid. In the evening another puncture was made by a large trocar, and a mixture of pus and blood came away, but it was not offensive. The temperature during the day varied between 99° and 101°.

26th.—She sank at about 4 a.m., five days after the operation.

At the post-mortem examination it was found that there was general peritonitis, the small intestines being injected and distended, but the amount of lymph superficially was small. In the right flank was a quantity of offensive, sickly-smelling, decomposing lymph and pus; in the left flank there was a smaller quantity of the same; while in the pelvis there were about two to three ounces in the recto-vaginal pouch, into which the trocar had been inserted. There was little or no inflammation along the pedicle, and the wound in the abdominal wall was healthily closed, except where it had been opened shortly before death.

Clinical Remarks (by Mr. Wagstaffe).—This case was apparently simple, and it is difficult to assign a cause to the fatal complication. The character of the pedicle and wound after death shows that these parts were not in an unhealthy state. It must be noticed, however, that the first indication of peritonitis coincided with a condition of atmosphere prove to excite active decomposition; that until the night of the 22nd she was doing well; and that after this peritonitis had apparently been checked, symptoms of greater advance of the peritonitis manifested themselves at a time when the atmosphere was again in a very unhealthy state. At both times of activity in the inflammatory symptoms the air was excessively close and oppressive, highly charged with electricity; and at the time of the last exacerbation a violent thunderstorm was impending. It is well known that at such times animal substances are peculiarly prone to fermentation and decomposition; and what is more probable than that the inflammatory products which are necessarily poured out after a large operation such as ovariotomy, and which are so liable to septic changes, should be affected by that electric or other dynamic condition of atmosphere which promotes decomposition in such a marked manner? These products of inflammation should go on to organisation, or be reabsorbed under healthy conditions, but under the peculiar conditions of atmosphere referred to, they must be very liable to decompose, and by their decomposition to produce active and fatal peritonitis. This case is not one of those in which retained fluid in the pelvis is the start-point of peritonitis, and where the removal of the cause by tapping the recto-vaginal pouch would have been probably followed by a removal of the peritonitis. There had been no draining of blood or cyst-contents into the pelvis, and, moreover, the amount of pus in the flanks was as much as that in the pelvis. In the presence of these facts it seems impossible to attribute the complication to other causes than those of atmospheric origin.

It is worthy of notice that the first indication of peritonitis seemed to be entirely checked by the treatment adopted, and this was directed to two ends. One of these was to allay the local mischief by the free application of ice to the surface; and that this was for the time successful was evident, for the surface remained cool, and, until the next thunderstorm, the patient was almost entirely free from pain. The other main object was to neutralise the influence which the circulation of septic products was likely to produce upon the circulation generally. This was attempted by introducing carbolic acid subcutaneously. This case will, it is evident, prove nothing conclusively as to the action of carbolic acid thus administered, for the results obtained may be attributed with equal reason to the ice; but in three or four cases in which the subcutaneous injection of carbolic acid has been made use of in this hospital in cases of septic poisoning, its effect in checking the rise of temperature and the occurrence of rigors has been most marked. The use of morphia in this case was limited as much as possible, and confined to allaying pain when it occurred.

EPIDERMIC TRANSPLANTATION IN CHANCRE.—M. Dron, Chief Surgeon of the Venereal Hospital at Lyons, gives an account of an application which he has made of Reverdin's method to a chancre six centimetres long by four broad. This, although clean, having shown for some weeks no signs of cicatrisation, two epidermic grafts taken from the thigh were applied on September 12. On the 16th a cicatricial zone surrounded each graft; but the chancre was found to be extending in size. By the 24th the two epidermic islets had attained the size of a twenty-centime piece, and were extending on all sides, and especially towards each other, and five days later the cicatrisation of the chancre was completed.—*Annales de Dermatologie*, 1874, No. 4.

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Medical Times and Gazette.

SATURDAY, JUNE 20, 1874.

THE HOUSE OF COMMONS AND THE FEMALE MEDICAL QUESTION.

The opportunity of airing their grievances in the House of Commons which the supporters of female medical education and graduation have been looking forward to for many years was afforded them on Friday last. The forms of the House precluded the motion of Mr. Cowper-Temple from being put, but the conversation which ensued on his drawing attention to the disabilities of the Scottish universities to grant degrees to women cannot fail to be satisfactory to Miss Jex-Blake and her supporters. The consideration of the question elicited some highly characteristic speeches from members on both sides of the House, and admitted a free expression of sympathy with the project of extending to women the privilege of unlimited provisions for their higher education. From the preliminary remarks of Mr. Cowper-Temple, it appears that their commercial and professional education must commence at a rather humble department. He says that they are precluded from commercial pursuits by their imperfect acquaintance with arithmetic. We presume that the provisions for educating women up to that point are already sufficiently developed; and now that Mr. Cowper-Temple's motion has ended in a Parliamentary conversation, he may be able to bring the ambitious objects of his special interest under the influence of such means as will develope their knowledge of elementary education as a necessary provision for their participation in scientific studies.

We regret to observe that, in the House of Commons, several attempts were made to throw opprobrium upon the University of Edinburgh for the part which it has played in the attempt to provide for female medical education. In all honesty of purpose, the University endeavoured to provide for the medical education of women. They cordially endeavoured to meet the demands which were made upon them for the teaching of medicine without regard to sex, and they persevered in their experiment till two of the professors who had initiated it declared themselves unable, mentally and physically, to continue it, and one was prostrated by increased labour to an extent which, to all appearance, will necessitate his resignation of a chair which, during a long period of office, he has occupied with world-wide distinction. But, even in face of these and similar difficulties, the University authorities might have striven to provide means for the continuance of the promotion of female medical education, but they could not have ventured to risk the ruin of the school by entering into measures directly antagonistic to the almost unanimous opinions of the male students. When the education of the few women who were attending medical classes in Edinburgh University six or seven years ago had reached that point when it was necessary that they should commence the study of clinical medicine, dissecting and systematic anatomy and surgery, almost 500 male students recorded a protest against the proposal to educate women along with men. That memorial, which was presented by 500 students to the managers of the Edinburgh Royal Infirmary, gave the University an opportunity of estimating the intensity of feeling which male students entertained on the subject, and showed them that the continuance of prosperity and harmony would be forfeited if they took measures at variance with the current of feeling amongst those students whose wishes demanded their primary consideration. So intense, indeed, were the antipathies of the male students to the course adopted by those of the other sex, that the latter drew upon themselves a public expression of opinion. This assumed the form of a riot, for which both parties were equally blameable, and of which the alleged cause was the repugnance of male students to the establishment of mixed classes in anatomy—an aversion which has since obtained universal acceptance and elicited many emphatic expressions of opinion even from the friends of female education.

We regret, also, to see that the charge that an unworthy spirit of crafthood amongst medical men has been the greatest obstacle which the female students have had to meet in Edinburgh in their attempts to obtain education and degrees. Such a charge is utterly unfounded. If in the various hostile votes which have arrested the progress of the lady students there has been a proportionate preponderance of medical opinion, is no explanation evident but that which is based upon the ludicrous charge of professional trades-unionism? When the medical school, which throughout its whole history has formed a distinguished feature of a famous university, was threatened with a disturbance of its internal peace and an arrest of its growing prosperity by a handful of rash innovators, who were the men who could reasonably have been expected to use their influence in maintaining its good name, if not those who held its degrees, who had been benefited by its past and were interested in its future welfare?

So far are the members of the medical profession from feeling alarmed at the threatened invasion of female doctors, that we feel sure there are few, if any, who would not be highly gratified if the few women who have produced so much social disquiet were to push their way into the Register through the London University. If such an issue would insure teaching bodies of that tranquillity which is absolutely necessary for the uninterrupted prosecution and teaching of science, it would be a welcome solution of a vexatious question; but we have no guarantee that it would not simply be the first step of a renewed passage through public controversy to unprofitable distraction.

It is painful to see that the spirit of misrepresentation which has entered into the advocacy of the female medical scheme in humbler assemblies has also found its way into the House of Commons. Mr. McLaren, member for Edinburgh, said in his speech—"No sooner was the want of accommodation for

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the ladies announced than in the course of three months the sum of £65,000 was raised for the purpose in subscriptions." If there was a separate fund of £65,000 raised "for the purpose," we must confess that we were formerly unaware of the fact. If, however, it was raised with the intention of providing medical education for women, we are astonished that it has not been employed for that purpose. That sum of money would certainly procure medical education for all the medical women of the present century, if they were in addition to pay fees equal to those paid by men. Mr. Henley, again, ascribes his determination to support the proposal to educate women as doctors to the discovery that the number of doctors is diminishing and the death-rate increasing, and that if a sufficient number of medical practitioners cannot be drafted from one sex we must requisition both. Though Mr. Henley points to the Census as the source of his information, we cannot help coinciding with the Lord Advocate and the *Times* that there must be some element of error in a statement which on both heads is at variance with all professional belief.

SEWER-GAS PNEUMONIA.

A few weeks ago, in our number of April 4, we narrated, under the above heading, the history of an outbreak of illness in Mr. Waterfield's school at East Sheen, consequent on the opening of a sewer-ventilator opposite to, and on a level with, the house. We recur to the subject once more, not in any censorious spirit towards the Rural Sanitary Authority of the District, but because we are able to state rather more fully the results of the experiment thus made on the effects of sewer-gas, and because the whole story is pregnant with instruction and warning for all sanitary authorities and all householders. The facts are very simple and may be very briefly stated, and the lessons to be learnt from them are very easily read.

For fifteen years there had not occurred in the school a single case of illness of any kind attributable to drainage evils, and the sanitary arrangements of the house had been pronounced by the local officer of health to be perfect. On March 14 last, the parish sewer in the road immediately opposite the house was opened, by order of the Rural Sanitary Authority, for the purpose of inserting a ventilator protected by a charcoal basket. Mr. Waterfield immediately warned the authorities of the dangers to which the inmates of his house would be exposed by this proceeding, and on the 16th addressed a formal protest to them, pointing out, on very high authority, that charcoal cannot be regarded as a perfect protection against the ill effects of sewage effluvia; that there would be additional and great danger of insufficient protection by the charcoal whenever a high tide or a continued east wind should cause increased pressure on the gases in the sewer; and that, besides the risk of infectious diseases from the sewer-gases, there would also be great danger of pneumonia from the same exciting cause. The only grace that Mr. Waterfield obtained, however, was that the ventilator should for a while be covered with gravel. On March 20 there was a high tide; the mouth of the sewer was under water, the compressed gases in it forced their way through the gravel covering the ventilator, and some of Mr. Waterfield's servants, who slept in rooms looking on the road, complained of the smell. On the morning of the next day, a boy sleeping in a room which faced the ventilator was taken seriously ill with pneumonia. Mr. Waterfield then telegraphed to the parents of his pupils to remove their sons as quickly as possible: and, in consequence of the representations made to the Board, permission was given to remove the ventilator and close the opening. This having been done on the evening of the 21st, all smell at once ceased, and no additional cases of illness of any kind afterwards occurred in the house; but meanwhile, during the day and evening, two more of the boys and two servants had also been affected in the same way as the first boy. On the whole, then, five cases of pneumonia occurred; and of these one—a servant—died, and a second—one of the pupils—was, when we last heard, still dangerously ill.

The Local Government Board sent down two of their inspectors to inquire into the cause of the illness in the school, and these gentlemen pronounced all the arrangements within the house to be excellent, and directed the permanent closing of the opening in the sewer in front of the house. Mr. Waterfield then took back his pupils, and up to the present time there has been no new case of illness.

Now, we might leave this story to teach its lesson without a word of comment; but we will make two remarks on it. First, that sanitary authorities may learn from it that to have knowledge is not all that is required of them, but that further, to adapt the reply of the painter who was asked how he mixed his colours, they must apply their knowledge "with brains"; and, secondly, that it teaches the householder in the most forcible manner the great risk he incurs of dangerous or fatal illness whenever and so long as there is a possibility that a sewer may ventilate itself into his house by means of any of the escape- or waste-pipes.

THE NATURE AND ORIGIN OF TYPHOID FEVER, CONSIDERED MORE ESPECIALLY WITH REGARD TO ITS PREVENTION AND TREATMENT.(a)

I.

It seems strange to some of us that such a question as that relating to the mode of origin of typhoid fever should be still in dispute, but it will seem still stranger to more that the very existence of such a disease should be questioned, and that, too, on the great authority of Dr. Stokes, of Dublin, whose experience of fevers, dating back as it does to the epidemic of 1818-19, is probably greater than that of anyone now alive.

This seems very extraordinary to us of the present day, who have been brought up in the belief of the complete distinction of the two maladies, and who have only seen typhus and typhoid compared for the sake of drawing out the many important points of difference between the two sets of cases. Here in London typhoid fever is common enough; typhus is much rarer, though last winter not a few cases presented themselves, and certainly, as compared in the wards, nothing could be more distinct. All this may seem so trite as to be quite threadbare, but when a man like Dr. Stokes comes forward to assert the unity of fever, it behoves us again to examine the grounds of our belief. And yet there can be no doubt as to Dr. Stokes' opinions—witness the following:—"Here is another of the great facts which show the inexpediency of drawing hard-and-fast lines of distinction between what are termed *typhus* fever and *typhoid* fever—that the one exciting cause will in one person produce one form of fever, and in another a different form of fever . . . . When fever appears in a family living in some confined situation in a large city or town, in a badly ventilated dwelling, perhaps in the midst of an unwholesome and densely populated neighbourhood, several members of that family may be struck down by the disease. They may sicken simultaneously, or one after the other, so that we are

(a) "Lectures on Fever," delivered in the Theatre of the Meath Hospital and County Dublin Infirmary, by William Stokes, M.D., D.C.L. Oxon., F.R.S., Regius Professor of Physic in the University of Dublin, Physician to the Queen in Ireland; edited by J. W. Moore, M.D., F.K.Q.C.P., Assistant-Physician to the Cork-street Fever Hospital, etc. London: Longmans. Pp. 439.

"A Treatise on the Continued Fevers of Great Britain," by Charles Murchison, M.D., LL.D., F.R.S., F.R.C.P., Physician and Lecturer on the Principles and Practice of Medicine, St. Thomas's Hospital, etc. Second edition. London: Longmans. Pp. 729.

"Typhoid Fever: its Nature, Mode of Spreading, and Prevention," by William Budd, M.D., F.R.S. London: Longmans. Pp. 198.

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afforded an opportunity of witnessing the effects of the malady on them individually. Under such circumstances it has been observed that a marked variety is presented in the condition of the several patients. One will have the disease in its severest form, another will experience but a mild attack; some will suffer from protracted fever, others will go through an illness of the briefest duration; one will have petechiæ, another will present no eruption; one will display critical phenomena, whilst another will recover without crisis of any kind. *One will have typhus, another typhoid, or even rheumatic fever.*" Such statements, coming from such an authority, seem so very astounding as to demand the closest scrutiny of the facts advanced in support of them, for in a case like this mere authority must be rejected. The groundwork for Dr. Stokes' opinions seems to us to be mainly derived from his experience of the epidemic of 1826-27, which certainly must have been an extraordinary one, and to which, as comparatively unknown to men of the present day, we shall refer somewhat in detail. Of it he says—"The disease was clearly a typhus fever, with every character of the affection. It was highly contagious, with abundant and well-marked petechial eruption and prominent secondary affection of both the respiratory and digestive systems. The tumefaction and ulceration of the ileum were found well marked in numerous cases; so that if those who advocate the doctrine that such a lesion does not occur in typhus had been there at the time, and had made dissections in this (the Meath) Hospital, they would never have defended this opinion. . . . The most usual appearances were extensive ulcerations in the lower third of the ileum. These ulcers were either isolated and circular—as large as a sixpence, with raised edges, and very deep—or running all round the intestinal tube. There was also great enlargement of the lymphatics of the mesentery, the vessels containing purulent fluid, and the mesenteric glands themselves in a state of suppuration, and destroyed. . . . The disease was a true typhus fever, a maculated fever; and yet in a very large number of cases indeed there was follicular disease of the intestines." Of this same outbreak of fever, Dr. Stokes elsewhere says—

"The epidemic of 1826-27 was of a milder but more diffusive type; in it vast numbers were indeed attacked by the fever, but the great and profound sinking of the system which prevailed in the other epidemics I have mentioned was not present in this. Yet was this extraordinary epidemic in a certain number of cases not only of rare virulence, but also exhibited symptoms such as have been rarely manifested. . . . Patients who had precisely the symptoms of the general fever, whose symptoms presented nothing to draw particular attention to them more than others, would be suddenly seized about the seventh day with extraordinary abdominal spasms—the spasms so severe that they could be likened only to the worst cases of painter's colic. In some cases the pain was so great as to make the patient scream out, and, just like the spasms in painter's colic, there was great relief given to the patient by making strong pressure upon the abdomen. In the course of a very short space of time—I believe within an hour or less—it was observed that the patient's face began to turn yellow; a jaundiced tint rapidly spread over the whole body, so that on the day on which the patient was attacked he was universally jaundiced. The kind of jaundice was curious, too; it never amounted to the extreme degree of yellowness seen in true jaundice. The patient was very yellow certainly, but he had not that intense yellowness which you see in cases of mechanical obstruction of the gall-ducts, or in cancer of the liver, and so on. The horrible spasms continued for several hours. The patient then began to vomit black matter—matter at first like coffee-grounds, but afterwards quite black. In a few instances he passed the same matter from his bowels, but in most cases the bowels were constipated. Then began another class of symptoms. The tip of the nose grew cold; it became pale, livid, purple. The same appearance was presented by the toes. A gangrene—true gangrene—of the nares and toes preceded death. In some cases death took place, with the whole of these symptoms, within six hours from the invasion of the attack of spasms; in others the patient lived for twenty-four or thirty-six hours. I believe few lived for more than thirty-six hours.

"The disease attacked the finest and best-developed men; young men from twenty-five to thirty years of age were very commonly struck down. The first sixteen of these cases died; not one was saved. The outbreak excited the greatest possible consternation; it was thought that the yellow fever was about to break out in these countries.

"The post-mortem appearances were the same in all—and they were different—remarkably different from those in other patients who died in this epidemic but without these symptoms. We found in the first place that the peritoneum was not inflamed, notwithstanding the dreadful pain. It had just the appearance that we see in many cases of bad fever—a certain lividity of colour. In every dissection we found intussusceptions to the most enormous extent—invagination of the intestines in every direction upwards and downwards; in some patients as many as six were observed. In all of them there was an enormously enlarged spleen, in a condition of extreme softening, so that in some patients it was difficult to take this viscus out of the body without rupturing it. In none, however, did it appear that actual rupture of the spleen had occurred during life. In none did we find any inflammation of the liver, and, with respect to the mucous membrane of the stomach and of the intestines, all that can be said is that there was extreme lividity and softening in different portions of the intestine."

Such is the extremely interesting account given by Dr. Stokes of this extraordinary outbreak of fever. We need only add that those who were attacked in the hospital had a regular maculated fourteen-day fever. Now, are we to accept Dr. Stokes' reading of the facts, that this epidemic proves the unity of typhus and typhoid? With all due deference to such an authority, we should distinctly say no. To us the slight outbreak of typhus last winter exactly illustrates the course of events. It is quite possible to have a coincident outbreak of typhus and typhoid, and without question the former is by far the more communicable by infection or contagion; and so, of the two, those attacked in hospital are most likely to suffer from typhus.

THE WEEK.

TOPICS OF THE DAY.

THE conference on the subject of cholera will commence its sittings at Vienna on the 1st proximo. Dr. Edward Seaton, of the Local Government Board, and Dr. Dickson, Physician to the British Embassy at Constantinople, are appointed to be the representatives of this country.

The Clerkenwell Vestry have at length succeeded in finding a site for a mortuary for the parish. They have taken the old burial-ground at the back of St. James's Church, Pentonville, on which they have resolved to erect a mortuary.

On Thursday, the 11th inst., the Duke of Edinburgh distributed the prizes to the students of St. Thomas's Hospital. He was accompanied by the Duchess. After an inspection of the building, their Royal Highnesses proceeded to a large room in the Hospital for the distribution of the prizes. Mr. Sandford received the Treasurer's Gold Medal for general proficiency and good conduct, Mr. Potter the Cheselden Medal, and Mr. Peck the Sir William Tite Scholarship—an honour which he had received on a former occasion. Dr. Peacock

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Dean of the Hospital, and the chairman, alluded with gratification to the honour which the visit of their Royal Highnesses had conferred upon the Hospital. His Royal Highness, who was received with applause, said, after expressing his pleasure at being able to be present at the distribution,—

"I think you will allow me to congratulate those gentlemen to whom I have had the pleasure of presenting these prizes on their success. It must be, I think, a great and additional pleasure to them to have heard the unanimous applause and unanimous sympathy of their fellow-students. I can assure you that I shall always take the greatest interest in their future welfare and success in the arduous and difficult profession which they have chosen. It has also afforded the Duchess of Edinburgh great pleasure to be able to be present on this interesting occasion, and on her part I thank you most heartily for the very cordial reception which you have given to her. I can assure you that, having once visited this Hospital, and having noticed, as I have, the magnificent building and the well-aired wards, and also the unmistakable evidence of the care taken to secure comfort to its afflicted inmates, she will not cease to take the great interest in the institution to be expected from the wife of one of its governors."

After his Royal Highness had again expressed thanks for their reception, the Royal party withdrew from the room, and shortly afterwards left the Hospital.

On Saturday last, in consequence of the increasing number of applications for admission to the Samaritan Free Hospital, a branch establishment was opened at 1, Dorset-street, Manchester-square. There was a large gathering of friends and supporters of the institution. Lord Ducie presided, who in his opening address made some remarks on the advantages of special hospitals in some cases, particularly where they were dedevoted to the treatment of diseases of women. Lord Selborne moved the first resolution, to the effect that the meeting approved the step taken by the committee to provide increased accommodation for the reception of women, and also wards for children, and would encourage the committee in their endeavour to provide ample means for the additional expenses. It may be well at this time, when the question of the value of special hospitals is engaging the attention of the public and the profession, to give *in extenso* the opinion of so eminent a person as Lord Selborne. The tribute that he pays to the services rendered to humanity by Mr. Spencer Wells, will, we think, be generally acknowledged as just. He said—

"Whatever opinions might be entertained on the general question of multiplying special hospitals, there could be no difference of opinion with respect to the class of cases with which the Samaritan Free Hospital was concerned. The evils which had been found by experience to occur in the treatment of these particular cases in general hospitals had been a serious drawback to the usefulness of one of the most excellent class of institutions which we owed to Christianity, and which were, perhaps, nowhere more highly developed than in this country. If there was any way of doing good, of which there could be no shade of doubt, it was the support of hospitals for the relief of human misery and disease. In some cases, however, it was found that the aggregation of patients in large hospitals counteracted the very advantages intended to be derived from them, placing the patients in greater risk than they would anywhere else incur. That was especially the case with respect to the particular class of disorder for which separate treatment was provided by the new arrangement of this institution. He found it stated in the report that in such cases the mortality in general hospitals was 76 per cent. as compared with 21 per cent. in the Samaritan Free Hospital. The fact seemed to be absolutely conclusive, not only as to the propriety, but as to the duty and necessity of supporting arrangements which, in that class of cases, reduced the mortality of patients from 76 to 21 per cent., and he could not imagine any clearer call on the affluent than to afford this benefit to their poorer and more necessitous sisters. The work done by the Hospital he regarded not only with satisfaction, but with admiration, for it represented one of the most splendid triumphs of modern surgical art and modern philanthropy, [illegible] of the greatest achievements of medicine and surgery in [illegible]ge. Until a few years since this class of disorder had been regarded as necessarily and absolutely fatal, and as reducing the reasonable possibility of life in the woman afflicted by it to four years, though the duration of life generally fell far short of that. In a medical publication, reviewing in 1873 the work of that eminent man, Mr. Spencer Wells, whom this institution has the advantage of calling its surgeon, it was calculated that in his practice alone he had been the means of adding twenty-five years to the probability of life of each of the 373 women on whom he had successfully operated. Instead of the four years of declining health and hopeless misery which those women would have had to anticipate, not only those four years, but twenty-five years which had been wholly saved to them, were years of restored health, usefulness, and happiness to those who had been benefited by the operation. He thought the man of whom that could be said, and the art of which it could be said, deserved higher honours, higher rewards, and higher praise than most things which it was permitted to any men in this world to be able to do. If ever there was a public benefactor, surely it was the man who, by a long course of practice, had brought to such perfection so invaluable an art. He had rescued from the grave, not only great numbers of his own fellow-countrywomen, but of the women of other countries; for his example, his courage, and his skill had taught others to do likewise, and the operation was spreading all over the world. The man of whom he had spoken, and whose name was inseparably identified with the Samaritan Free Hospital, was as well deserving of the highest public honour as any man living. For the reasons he had given, he thought the meeting would agree with him that what the committee had done deserved their warmest support and encouragement."

After some formal business the meeting adjourned.

We understand that Mr. Wilson, who is the author of a good little book on zoology, is a candidate for the chair of zoology in the New Yorkshire College of Science at Leeds.

Professor Biermer, of Zürich, has received a call to the Professorship of Clinical Medicine in the University of Breslau.

THE INVALIDS FROM THE GOLD COAST.

A STRIKING illustration of the beneficial results which would have attended the establishment of a sanatorium at Madeira, for the reception of invalids from the Gold Coast, has just been afforded by the voyage of the transport *Severn*, lately employed in conveying troops and invalids to this country. The *Severn*, after embarking invalids at Boaz Island, Bermuda, proceeded to Gibraltar, where, on May 10 last, she took on board fifty-one men of the 2nd Battalion Rifle Brigade, who had been left there on the return of the Regiment to this country from Cape Coast Castle, they not being considered sufficiently well to continue their journey. On May 11 the transport broke her main shaft when about twenty miles from Cadiz, and had to be towed into the latter port by the transport *Thames*, which fortunately happened to be near at the time. The enforced delay was a great advantage to the invalids on board; fresh meat and vegetables were to be had in abundance, and the health of all gradually improved. Eventually they were taken back to Gibraltar in H.M.S. *Simoom*, and finally disembarked at Netley on the 29th of last month. By the last reports nearly the whole of these men were sufficiently convalescent to rejoin their corps immediately, and the remainder it was thought would be well enough to follow in a short time. The good effects of this sojourn in a warm climate are more strongly exemplified by the fact that there is still a great number of sick with the 2nd Battalion of the Rifle Brigade at Winchester, suffering from the effects of the Ashantee campaign; and the men whom it was considered advisable to leave behind at Gibraltar are now more nearly restored to health than those who, at the time, were judged capable of being brought on home.

This circumstance is of itself sufficient to explain the immense amount of annoyance caused to the Army Medical authorities by the vacillating conduct of the Portuguese Government at the commencement of the late war. As it

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was peremptorily laid down that the whole of the European portion of the expeditionary force would have to be withdrawn from the Coast by the end of March, it was intended, by the establishment of a sanatorium at Madeira, to form a temporary resting-place for all those cases which it was judged would be greatly benefited by a more or less lengthened residence in a genial temperature. The dilatory action of the Lisbon authorities, however, which was no doubt had recourse to purposely to obviate the necessity of a direct refusal, deprived our soldiers of the immense advantages which would have accrued to them by a prompt compliance with our request, and we were compelled instead to utilise such limited hospital accommodation as could be spared at Gibraltar, with what good results is now apparent.

The number of the Gold Coast invalids at the Royal Victoria Hospital, Netley, is gradually being reduced by the discharge of convalescent men to their respective regiments: Captain North, of the 42nd Highlanders, and Lieutenant Sherston, of the Rifle Brigade, are slowly recovering from their wounds, and their general health is stated to be improving; satisfactory accounts are also given of the recovery of Major Butler, C.B., who has, we believe, left Netley. Surgeon Bolton, who served with the 2nd Battalion 23rd Regiment during the Ashantee campaign, has been appointed to take medical charge of that corps, in place of Surgeon-Major Alder, who has not yet sufficiently recovered from the effects of climate to return to duty; and we hear that several other medical officers who took part in the late expedition are still on sick leave, much prostrated from the anxieties and exposure incidental to the harassing duties they were called upon to perform in such a pestilential climate.

Surgeon-Major Rowe has, we believe, since the termination of hostilities been employed upon a diplomatic mission to the King of the Awonahs, with a view of establishing pacific relations with that tribe; but the accounts which have reached this country state that the result of his journey has been fruitless, as the monarch in question utterly refused to present himself for an interview.

THE LATE HOSPITAL SUNDAY.

The second anniversary of Hospital Sunday for the metropolis has come and gone, and although upon the present occasion the organisation was far more perfect than in the first year of its institution, we fear that the result will be found to be far below what has been anticipated. At this comparatively early date it would be premature to assert authoritatively that such is the fact, but from the few returns which have reached us we note the following disparities:—At St. Paul's Cathedral in 1873 the morning collection amounted to £470 (upon that occasion the Prince and Princess of Wales were present), the afternoon to £39; this year the amount reported to have been received from St. Paul's by the Lord Mayor is £180 9s. 11d. At the Temple Church, again, in 1873 the value of the collection amounted to the sum of £344, as against £293 in the present year; then at the Chapel Royal St. James's we have £97 for last year, as against £79 for this anniversary; and at the Chapel Royal of the Savoy £50, against £32 for 1874. As far as we have yet been able to compare, Westminster Abbey affords the only instance of an increase in the amount realised at the more prominent places of public worship; in this case the returns were for 1873 £272, and for the present year £282. The Rev. C. Voysey, who preached at St. George's Hall upon each occasion, handed over £72 last year, and £60 this.

It must, of course, be remembered that the movement is stated to be much more widely spread upon the present occasion, so many more ministers of different denominations having promised to preach in its behalf. Yet it is singular to note that upon the Tuesday following Hospital Sunday last year £7000 was acknowledged by the Lord Mayor as the total amount up to that time received at the Mansion House, whilst the Tuesday's acknowledgment of this year was for £5000 only; and we shall be much astonished if at the end of one week from Hospital Sunday this year the Lord Mayor is enabled to announce the sum received to have reached a total of £20,200, as was the case in 1873.

Hospital Sunday, in fact, we venture to think, will never obtain a strong foothold in a city so vast as is London and its suburbs. The originators of the scheme should be credited with the very best intentions in having brought the provincial system to be tried in the metropolis, but the case of London and the provinces is not an analogous one. In the former, the various hospitals are so numerous that it is almost too much to estimate the hugeness of the sum which should be collected to greatly benefit them all; for it must never be forgotten that the funds of many of these old-established charities will suffer considerably through the introduction of a Hospital Sunday. The amount thus collected and distributed must not be looked upon in the light of a bonus to the institution receiving it, for some of it at least will come out of the pockets of annual subscribers, who, in patronising the plate upon this special occasion, will close their subscriptions to many a charity which they had previously supported by direct contributions. In provincial towns, on the contrary, where the hospitals are few and well known, this annual anniversary is a most excellent arrangement for collecting the annual subscriptions of the inhabitants, whose charitable donations may even be stimulated by the eloquence of the different divines. Moreover, the distribution of the funds collected is a task of no difficulty, and gives rise to no heartburnings on the score of apparent injustice in estimating the relative claims of the charities to be assisted.

It is from no conservative sentiment that we advocate the old and long-tried system of recruiting the funds of the various London hospitals. If it could be fairly shown that the amount collected from the public on a given Hospital Sunday was exactly so much in excess of the sums which would be subscribed during the year for their maintenance, we should be the first to recommend its adoption and continuance; but it is because we are of opinion that it will be found in the long run that the revenues of these charities will *not* benefit by this simultaneous collection, that we uphold the method which has been so long in force, and which has shown such satisfactory results in most of our great hospital institutions.

MR. BRADLEY AND THE AUTHORITIES OF OWENS COLLEGE, MANCHESTER.

Some excitement has been caused in medical circles in Manchester through the dismissal of Mr. S. Messenger Bradley by the Senate of Owens College from the post of Lecturer on Anatomy. The circumstances which have led to this unfortunate result are as follows. At the recent primary examinations for the membership, the candidates from Manchester were very unfortunate, about 50 per cent. failing to pass. Naturally, the Council of Owens College were much chagrined at the non-success of so many of their students, and it was reported that they were disposed to attach blame to Mr. Bradley and Mr. Perrin, the Lecturer and Demonstrator of Anatomy, for allowing so many men to go up for examination without being properly prepared. Hearing that it was the intention of the Council to dismiss him, Mr. Bradley wrote to the Principal, pointing out that such an extreme course would be unjust to him, and making sundry suggestions for the teaching of anatomy, which, if adopted, Mr. Bradley said he would guarantee that the failures, instead of being 50 per cent., should not be more than 1 or 2 per cent. In reply, he received a letter from the Registrar of the College to the effect that the Council contemplated reorganising the anatomical department of the College, and therefore did not intend to renew his appointment. Believing that this was intended as a

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peremptory dismissal, Mr. Bradley showed the letter to a friend, who asked for and received permission to communicate its contents to the students. The students at once held a meeting, and adopted a petition to the Council, expressing regret at the prospect of losing Mr. Bradley as a teacher, and their assurance that no successor would be found to discharge the duties with greater zeal or ability, concluding by begging the Council to reconsider their decision. The petition was signed by 102 students; but it appears that there was no necessity for the alarm of these gentlemen, as the Council did not intend their first resolution to amount to a dismissal; indeed, they afterwards resolved to reappoint Mr. Bradley temporarily, pending the foundation of a properly endowed chair of anatomy. On hearing of the action of the students, Professor Greenwood, on behalf of the Council, wrote to Mr. Bradley, requesting him to contradict the report that he had been dismissed from the Medical School, and asking whether he had consented to the communication of the Registrar's letter to the students. To the Professor's inquiries Mr. Bradley replied as follows:—

"My dear Sir,—It will be better for the Council of the Owens College to contradict the report that I have been dismissed from the Medical School than for me to do so. You must allow me explicitly to deny your right to criticise or reflect on any use which I may have thought fit to make of the official communication of the Registrar."

This letter was communicated to the Council at their next meeting, when they unanimously passed a resolution to the effect that, having regard to the circumstances of the case and the terms of Mr. Bradley's letter, they regretted that, in their opinion, it would not conduce to the welfare of the College for Mr. Bradley to retain his connexion with it. Mr. Bradley has since announced his determination to found a new medical school as a rival to Owens College. The staff of the new school is not yet announced, but we understand that it contains some experienced and favourite teachers, and there is no doubt but that Mr. Bradley's popularity will attract many of the Manchester students.

DINNER OF THE OLD MERCHANT TAYLORS.

Merchant Taylors' School is about to leave its "cribb'd, cabin'd, and confin'd" quarters in Suffolk-lane for the certainly more spacious, open, and healthy site vacated by the Charterhouse School; and as a farewell greeting to the old buildings of their own school-days, the Old Merchant Taylors, or "Old Boys," dined together on the 16th for the first and last time in the old school. The present head master took the chair, and was supported by Dr. Hessey (the late head master), the Master of the Merchant Taylors' Company, and a very goodly number of "Old Boys," among whom were not a few who have made their mark in our own profession. At the high table we noticed Dr. F. Hawkins, Dr. Pavy, Professor Longmore, C.B., and Mr. Timothy Holmes; and elsewhere in the room, Drs. T. Trollope and Rhys-Williams, and Messrs. T. Carr Jackson, W. Spencer Watson, F. Gordon Brown, J. E. Adams, and J. P. Richards. The "Old Boys" passed a very pleasant evening together, and we cannot own to having heard any very fond regrets expressed on the desertion of the old buildings, nor any doleful predictions that the decay and ruin of the School will follow the revolutionary step of vacating its "old ways."

TREATMENT OF VASCULAR NÆVI WITH THE GALVANIC CAUTERY.

Dr. Dawson, of New York, strongly recommends this method of treatment. In a communication to the *American Journal of Obstetrics and Diseases of Women and Children* for May he confirms the favourable opinion of the use of the actual cautery in the treatment of nævi, and points out the special advantages of the galvanic instrument. Several cases are given in illustration.

THE LATE DR. LIVINGSTONE.

At the Royal Geographical Society's meeting on Monday, Sir Henry Rawlinson (who presided in the absence of Sir Bartle Frere) stated what the Government proposed to do in regard to the family of the late Dr. Livingstone. He said that Sir Bartle Frere had already informed the Society that the pension of £200 a year would be continued to the family, and that an application had been made to the Government urging also a grant of money. The amount recommended by the deputation had been £10,000 or £11,000, but the Government, taking all the circumstances into consideration, had thought that justice would be done by granting a sum of £3000, and Parliament would be asked to vote this amount. The Government had already undertaken to pay all arrears to the followers and servants of the late Doctor. About £1000 had been due in this respect when his followers reached Zanzibar, and the Consul there drew for the amount on the Royal Geographical Society. The Council, though feeling the greatest interest in and honour for Dr. Livingstone, did not think they were fairly liable for these debts, and the Government had taken the whole upon themselves, so that now all pecuniary matters between the late Doctor and the Geographical Society had been satisfactorily concluded.

PROVINCIAL SANITARY AUTHORITIES AND SMALL-POX.

Mr. Alfred Haviland, Medical Officer of Health to the Combined Sanitary Authorities in the counties of Northampton, Leicester, Rutland, and Bucks, has formally called the attention of the various sanitary authorities in these counties to the fact that small-pox has been prevailing in Birmingham for several months, and that the disease was in one instance imported into his sanitary area by tramps from the workhouse of that city. On that occasion prompt measures were adopted, and the disease did not spread. To prevent as far as possible the future invasion and spreading of small-pox, Mr. Haviland further has suggested—that the Compulsory Vaccination Act be strictly enforced; that every influence be brought to bear upon the people in favour of vaccination; that re-vaccination be generally carried out where necessary; that steps be taken for preparing an isolation small-pox house or hospital in the various parishes, and providing it with attendants; and that a very strict watch be kept upon tramps entering the district. We agree with Mr. Haviland that the public cannot be too soon warned of the danger which threatens them, and that the sanitary authorities cannot begin too soon to bar out or starve out the enemy.

EXAMINATION FOR ARMY, NAVY, AND EAST INDIAN MEDICAL SERVICES.

We beg to remind those of our readers whom it may concern that the next competitive examination for appointments in the Army, Navy, and East Indian Medical Services will take place at Burlington House on August 10, 1874. It is hoping too much to expect that before that date any modifications and improvements in the Naval Medical Service will have been promulgated; but candidates offering themselves upon the occasion will have every reason to look forward to the prospect of an ameliorated condition of things before their term of probation has expired. Mr. Ward Hunt and the heads of the Admiralty are, we believe, thoroughly convinced of the necessity which exists for making this branch of the service more popular, by which means a better class of competitors will be attracted to the periodical examinations: and the dearth of candidates presenting themselves of late years will accelerate the settlement of some more attractive terms, by which means alone can the Naval Medical Service hope to make up the lee-way it has lost throughout the whole profession.

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CARBOLIC ACID POISONING.

Two cases of carbolic acid poisoning occurred in the North last week. In one case the head nurse of the Birkenhead Union Workhouse gave one of the male inmates carbolic acid in mistake for a black draught, which caused his death in half an hour. In the other case the fatal draught was given in mistake for a chloral draught by the wife of the victim. Deceased had met with an accident to his thumb, which occasioned much pain. His wife, who had been an infirmary nurse for fourteen years, recommended chloral, and procured two draughts, to be taken if restless at night. The draughts were placed on a shelf in the scullery by the side of a small bottle containing strong solution of carbolic acid. Finding he could not sleep in the night, the deceased asked his wife for a draught; she went downstairs in the dark, and brought up a bottle, poured out half an ounce in a measure, and gave to her husband. As she took the measure from him, she perceived the smell of carbolic acid, and at once found that she had taken up the wrong bottle. A medical man was in immediate attendance, but the poor fellow died in less than an hour. An inquest was held, and a verdict of "Death by misadventure" returned.

THE ADELAIDE HOSPITAL, AUSTRALIA.

The fourth annual report of the Adelaide, South Australia, Hospital for the year ending December 31, 1873, states that during the year a larger number of patients was admitted to the Hospital than in any year since the first foundation of a public hospital in that colony. The number of in-patients was 929 males and 509 females—total 1438; and the average daily number 137, at an average annual cost of £47 2s. 10d. The number of out-patients prescribed for was 15,930, of whom 1914 were new cases. With the view of detecting persons applying for medical relief who were able to pay for the same, the Board had since September last decided that all out-patients should be seen in a room fitted up for the purpose at the Destitute Asylum. This step, sanctioned by the Government, had been adopted in consequence of the number of persons able to pay for medical advice, who, they had reason to believe, were taking advantage of an institution intended only for the relief of those in destitute circumstances. The Board hope that this arrangement will have the effect of keeping away all who are not "proper objects for hospital relief."

CONCUSSION OF THE BRAIN AND DIABETES MELLITUS.

A very interesting case in which diabetes mellitus supervened upon a severe injury to the head in an infant of eight months is recorded by Dr. Rossbach, of Herbsleben, in the *Berliner Klinische Wochenschrift* for June 1. The child fell from the nurse's arms: a convulsion immediately came on, followed by unconsciousness, vomiting, and other symptoms of shock, depression of the fontanelles, and dilatation of the pupils. No fracture of the skull could be discovered. Reaction began on the third day, and in a few days the child had almost recovered. Four weeks after the child was found emaciated and ravenous, and the urine, which was passed in large quantities, proved to contain sugar. Careful dietetic treatment reduced the amount of urinary sugar considerably, but only temporarily. Eczema and boils supervened, and the patient died three months from the discovery of the disease. Unfortunately a post-mortem examination of the head was not allowed; the other viscera presented nothing remarkable.

THE SEIZURE OF AN ANATOMICAL MUSEUM AT MANCHESTER.

At the Manchester Police-court, last week, "Dr." Woodhead appeared in answer to a summons charging him with having exhibited models of an improper nature in his Museum of Anatomy at Oxford-street, Manchester. Evidence having been given by Inspector Henderson as to the seizure of the models, Mr. Cobbett, on behalf of the defendant, said that the Royal College of Surgeons exhibited similar models, as did also several other societies. The Bench, however, expressed their opinion that the cases were not analogous, and, after inspecting the models, gave orders for eight to be destroyed. Notice of appeal was given, the models to remain in the possession of the police until after the decision is made known.

MORE REWARDS FOR SERVING ON THE GOLD COAST.

We had occasion to acknowledge some time ago an instalment of the rewards due to our professional brethren on the Gold Coast. These did not cost much, but the later instalments seem to be still less costly to a beggared country. We hear that the medical officers who served on the *Victor Emmanuel* are not to get their extra pay as promised, because, forsooth, they served *off*, not *on* the Gold Coast. The military gentlemen on board, we understand, got their extra pay without difficulty. But this style of reward in the army, has, we hear, been fairly capped in the navy; for we understand that a number of officers who served on the Coast have been promptly placed on half-pay for their services. Such rewards merit the approbation of a powerful profession and a great people.

HEALTH ON THE GOLD COAST.

Much has been lately written on the unhealthiness of the Gold Coast. It may be useful to notice, on the authority of one who has recently been there, what is said on the question. Mr. G. A. Henty, special correspondent of the *Standard*, in his work, "The March to Coomassie," just published, says,—

"The conclusion to which we arrived was, that with a good constitution, plenty of quinine, moderation in food and drink, and good animal spirits, a man might have reasonable expectations of getting through the dry season with but slight inconvenience. With a long residence, the powers of resistance to the effects of the climate rapidly decrease, and the danger becomes greater. During the wet season the risk is vastly increased, and the new-comer would probably have a first attack of fever within a fortnight of his first putting his foot on shore. As to diet and drink, the golden mean seemed the right thing on the Gold Coast, as elsewhere."

PRIZE IN OBSTETRICS.

Dr. B. F. Dawson, the founder and late editor of the *American Journal of Obstetrics and Diseases of Women and Children*, offers a prize of $150 (in gold) for the best essay "On Congenital Deformities, and Diseases depending on Maladies of the Uterus or Membranes." The competing essays must be sent to Messrs. Wm. Wood and Co., 27, Great Jones-street, New York, on or before April 15, 1875. The names of the authors must accompany the manuscripts in sealed envelopes. The essays may be written in the English, French, or German language; and that one to which the prize may be awarded by the censors, whose names will accompany and vouch for the verdict, is claimed for first publication in the journal.

AUSTRALIAN WINE.

The Melbourne correspondent of the *Times*, writing on April 21 last, makes the following observations on a report from Dr. Thudichum on some samples from Australian vineyards. He observes that—

"The Doctor has stated that it is impossible to produce a natural wine containing more than 26 per cent. of proof spirit, and to combat this assertion a report has been obtained from the Inspector of Distilleries for the Victorian Government upon a number of samples forwarded from Albury free from any kind of adulteration; and he gives as the results ascertained both by specific gravities and by a well-adjusted Sykes' hydrometer, percentages of proof spirit ranging on six out of seven different wines at from 27 to 29 per cent. The wine-growers appeal to this report as a refutation of Dr. Thudichum's theory on the subject. It comes from a disinterested source, and is made and published under official sanction; but beyond this I am not in a position to say what weight should be attached to it."

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CONVICTION UNDER THE FACTORY ACT.

MR. J. A. REDGRAVE instituted a prosecution on Monday against Mr. George Smeed, one of the largest brick manufacturers in the kingdom, for employing a girl under sixteen years of age in his brickfield. For the defence it was contended that a brickyard was not a factory within the meaning of the Act; and cases were cited in support of this theory. The magistrates, however, decided that a brickyard was a factory within the meaning of the Act, and fined the defendant 20s., but they granted a case for a superior court. Pending this appeal, several complaints against parents for allowing their children to work in brickfields were adjourned.

SEWAGE AND DISEASE IN MARYLEBONE.

DR. WHITMORE, in his last report, referring to the foul odours from the sewers of the parish of St. Marylebone, points out that, however much might be said against milk as a medium for the dissemination of typhoid poison, sewage matter was still more so. Should there be a few cases of fever in the parish, and infected germs get into the sewers, and thus reach the householders, the result may be some fatal epidemic. A systematic inspection by the surveyor of all the sewers in the parish is now being made—a sanitary precaution which other metropolitan vestries should follow.

CREMATION AT BERLIN.

WE understand that the Berlin Association for Burning the Dead has been informed that the apparatus constructed by Professor Reclam and Engineer Siemens was tested, and the result gained was not only satisfactory, but in every respect brilliant. At the experiment there were present—Professor Dr. Reclam, of Leipsic, Hofrath; Professor Dr. Fleck, Medecinal-rath; Dr. Küchenmeister; and many others who take a lively interest in the question, and who seemed perfectly satisfied with the apparatus.

RESEARCHES ON THE BRAIN.(a)

By Dr. EDWARD HITZIG.

No. I.

THE work before us is a very remarkable one, for it contains the original papers on the "electrical excitability" of the brain, which have overturned so many of our notions about the physiology of that organ. The author, Dr. Hitzig, was led, through the result of some experiments on the galvanisation of the head, by which a constant current passed through the posterior part of the head produced movements of the eyes, to re-examine the question which has universally been answered in the negative before—Does the cerebrum possess electrical excitability (*Erregbarkeit*)? He experimented on dogs whose skull had been trephined and dura mater removed, and a constant current of a strength which, when applied to the tongue, could just be felt, was made to act on different parts of the exposed hemispheres by means of platinum electrodes capped with tiny knobs and placed about two to three millimetres apart. By this method the surface of the hemisphere was examined with great care, and the discovery was made that on certain parts of their convexity, and in spots which, with the weakest possible current by which a contraction could be produced, could be accurately localised, contraction of definite and circumscribed groups of muscles on the opposite side of the body was excited by the current. The facts above related are now well known in England through the experiments of Professor Ferrier, which are founded on those of Dr. Hitzig and his colleague Dr. Fritsch, and we have summarised them in the briefest manner in order to show how the whole credit of the invention of the method, and of the most important results of its application, is due to Dr. Hitzig. The paper in which the latter, in conjunction with Dr. Fritsch, describes the origin of the idea of cerebral electrisation, the method employed, and the conclusions arrived at—the first of the series in the present volume,—was published in Du Bois Reymond's *Archiv*, 1870, Heft 3, and the date of its publication is an important one. In it the author pointed out (p. 11) that part of the hemispheres of the brain is "motor"—*i.e.*, reacts to electricity and gives rise to muscular contractions; the other part is "non-motor"—*i.e.*, incapable of stimulation.

The "motor" portion lies, in general terms, towards the front of the convexity; the "non-motor" portion lies behind. The muscular movements, which are localised in particular groups of muscles when weak currents are employed, occur in the case of strong currents in other muscles of the same side as well, if the same spots (*Centra*) of the brain's surface, or others near them, are stimulated. The spots or "centres" which reacted to weak currents were found to be so accurately localised that with some experience it was possible to open the skull with the trephine over the exact spot at which a particular movement was known to occur. The exact spots at which the application of the electrodes is necessary to produce movements of the muscles of the neck, of the extensors and adductors of the forefoot, and of its flexors and rotators, are all described in the paper of 1870; also the "centres" for exciting movements in the hind leg, and the muscles supplied by the facial nerve (p. 13), were accurately defined. It was found that the muscles of the back, tail, and belly could be made to contract from parts of the brain lying between the centres just enumerated, but at that time the exact "centres" for isolating these contractions could not be definitely indicated.

The whole of the convexity of the brain posterior to the centre for the facial muscles was found to be unaffected, even by currents of exceptional intensity—for example, by those developed by a battery of ten Daniell's elements. It was found that induced currents, of a strength which corresponded to the minimum of muscular contraction (*Zuckungsminimum*) which they would produce, were not nearly so constant in their effects as the galvanic current. Frequently the electrical stimulus was followed by tonic contractions of the muscles innervated by that region of the brain whose intensity lasted for some time, or a contraction occurred with the closing of the current, which after a few seconds appeared to cease, but became visible again at the moment of opening the circuit.

If strong induced currents were used, symptoms of exhaustion showed themselves in the animal under experiment, and stronger currents were required to produce the same effects for which weak ones had previously sufficed, or else no muscular contractions at all ensued. Sometimes hæmorrhagic suffusion of the substance of the cortex resulted, but more frequently the electrisation of the brain by induced currents (even when weak ones were made use of) was followed by after-movements (*Nachbewegungen*) in the muscles which had been excited to contract, which were of a tremulous character in the facial muscles, and of a clonic convulsive character in the extremities. Such after-movements may recur several times after all stimulus has been removed from the brain. They sometimes followed the application of the constant current, but, as a rule, were absent with the latter.

Epileptic attacks were observed as after-movements in two animals, one of which had two, and the other three attacks.

The same paper in which the above important discoveries are described, contains an admirable reply to objections which may be made to the theory of the localisation of centres for muscular movement in the cortical substance of the brain, and experimental proofs are given which seem to be capable of no other interpretation than that (in the words of the authors, p. 27) "either the stimulus of the current is taken up by the ganglion cells in the immediate neighbourhood of the electrodes, and through them converted into muscular movement; or else, at the spots where such movements can be excited, nerve-fibres from the white substance of the brain, which are capable of stimulation, approach very near the surface, and are so particularly favourably placed for excitation. But since there is no other conceivable reason why such fibres should be specially close to the ganglion cells, except for the purpose of entering them, we must conclude that those groups of ganglia (*Ganglienmassen*) are functionally intended for the production of organic stimuli in *those* nerve-fibres." The general conclusion of Hitzig and

(a) "Untersuchungen über das Gehirn Abhandlungen physiologischen und pathologischen Inhalts." Von Dr. Eduard Hitzig, Privatdocent an der Universität, Berlin. Berlin: Hirschwald. 1874.
"Researches on the Brain, comprising Physiological and Pathological Treatises." By Dr. Edward Hitzig, *Privatdocent* in the University of Berlin. Berlin: Hirschwald. 1874.

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Fritsch's first contribution to nervous physiology is the following:—A considerable part of the nerve-masses which make up the cerebral hemispheres—one may say almost their half—is in immediate functional relation with muscular movements, whereas another part has clearly no relation, at any rate of a direct nature, to them.

THE INTERNATIONAL EXHIBITION, 1874.

The Rhone Wines.

There are those—and we confess ourselves among the number—who would rank good old Burgundy, sound, well-matured, and with its bouquet fully developed, as the King of Wines. It is not a thin delicate wine like claret, but a robust full-bodied wine of good alcoholic strength, and, especially in the case of the red wines, of a highly "satisfying" quality, whatever that peculiar sensation may imply. But there is a group of wines most frequently united with these which deserves separate recognition—in fact, they belong to the same class, but to a different group of it; these are the Rhone wines. They differ in this important respect—that they are stouter, fuller bodied, and will consequently improve immensely by keeping; in fact, they will keep almost any length of time unimpaired, or even improved. The wine of this class best known in this country is Hermitage, but there are others quite as deserving, if not more so, of popular approbation.

As the traveller speeds along the Lyons and Marseilles Railway on his way to the "sunny South," not far from the town of Valence he comes to a district which is famous for the richness of its grapes, and which is the parent of most of the wines under consideration. The Hermitage is grown on a hill, having an old ruin (whence probably the name) on its summit, with a free southern exposure, and with a soil of broken gneiss rock, traversed in the best part by a calcareous band. But all along the opposite bank of the River Rhone downwards towards St. Peray, opposite Valence, the hills are covered with vines producing wines of great excellence. St. Peray itself, in the Ardèche, is the head-quarters of an old firm noted for their wines, and gives its name to a sparkling white wine of no mean pretensions. This firm was founded in 1798, and was latterly known as Faure Père et Fils, but apparently the last direct descendant has died out, and now the business is carried on by the nephews of the former member—Giraud Frères. These gentlemen are those represented in the Exhibition; but it may be within the recollection of our readers that we had occasion some time ago to speak highly of a wine from St. Peray obtained from the Wine Commission Agency, Charing-cross. This, we understand, was sent from another branch—if we can call it so—of the old firm, Malet-Faure, and Co. Were we to compare the two kinds we should say that the sparkling St. Peray of Messrs. Giraud is a much fuller and richer wine than that we formerly described.

In fact, the sparkling St. Peray of this firm is, for a natural wine, wonderfully rich and full—perhaps overmuch so for many palates. It is not, however, as most champagnes are, a liqueured wine. The grapes (white alone are used), grown in the sunny Rhone valley, are quite sweet enough to give body to any wine, and in this sparkling St. Peray it is certainly not wanting. Messrs. Giraud have here four growths of sparkling wine, and a quotation of these with their prices will show that—in their opinion, at all events—age is not the grand requisite in these wines. The growths are—1868, 68s.; 1869, 54s.; 1870, 72s.; and 1871, 48s. Thus it will be seen that the 1870 growth is dearer than that of either of the preceding years. It is, in truth, an extraordinarily rich wine, full of bouquet, which is appreciable both by the nose and the mouth; but for our own part we prefer the modest wine of 1871 at 48s. This is not so rich nor yet so sweet; it certainly has less capacity for development than the *grand vin* of 1870.

Besides being growers and merchants of sparkling wine, Messrs. Giraud grow in their own vineyards, at a place called Châteaubourg, not very far from St. Peray, a strong full red wine of excellent quality, which we can strongly recommend. This Châteaubourg, it seems to us, is particularly worthy of the notice of those who can afford to lay down a hogshead, costing £12 or £14, in bottle. It is a wine which will develope immensely by keeping, and is certain to repay itself. In bottle it costs 30s. to 36s. per dozen, but if imported by the hogshead it would come much cheaper, and he would be a peculiar individual who would prefer a bottle of common port to such a wine after it has had a good rest in bottle.

The other Rhone wines exhibited by Messrs. Giraud are Côte Rôtie, which, we think, is the finest of the group—a wine of splendid bouquet and flavour; but then it costs from 66s. to 72s. per dozen. To our mind, it is decidedly superior to the better known Hermitage, which is in Messrs. Giraud's list quoted at 72s. These are now the chief wines of the Rhone; still there are to be had, we believe, samples of a fine wine, the title of which seems to us to sound most insidiously—we mean the wine grown near Avignon, and which goes by the name of the "Château Neuf du Pape." In the days when the vineyard got its name, Pope's nephews were hardly the gentlemen to drink bad liquor or to select a poor vineyard. Unfortunately, both this vineyard and those which produced a wine also of some repute among a few connoisseurs in this country—viz., Croze—have, we understand, been devastated by the vine disease. Probably for this reason the wine called Château Neuf du Pape in Messrs. Giraud's list is only put down at 36s. Croze is quoted at 54s.

It may be a kind of certificate of character in the estimation of some that the firm are purveyors-in-ordinary to her Majesty the Queen.

DR. BURDON-SANDERSON ON VENUS'S FLY-TRAP.

On the evening of Friday, June 5, Dr. Burdon-Sanderson delivered, at the Royal Institution, a most interesting lecture on the phenomena associated with Venus's fly-trap (*Dionæa muscipula*), a subject which he has been recently investigating.

The name *Dionæa muscipula* was given to the plant when it was first imported from America. It belongs to the family Droseraceæ, a very natural one—*i.e.*, one in which the family characteristics are so well marked that in no individual member of it can the signs of original relationship be mistaken.

In the Droseraceæ the most striking peculiarity is one which is entirely functional or even teleological. It consists in this, that each member of it possesses in one way or other adaptedness to one and the same end. This end is the catching of insects, and not only catching them but digesting them, using them as food in short, just as animals do. These animal endowments, which have for some years engaged the attention of our great naturalist (Mr. Darwin), are possessed (as we hope he will some day show us) by each individual species in a degree which, in the main, corresponds to the general development of the plant; so that each advance from less to more perfect form and structure is accompanied by an improvement in its adaptedness to the function of preying upon insects.

The leaf of the Dionæa is of very peculiar form. The blade of the leaf consists of two nearly semicircular halves or lobes, which are united together along their straight borders by a strong mid-rib. On to this the two lobes are set in planes which are nearly at right angles to each other. The curved outer edge of each lobe is strengthened by a thickened border or hem. From the hem spring some twenty spikes on either side, which are directed upwards and inwards. The under surface is bright green, smooth and glistening, and is marked with parallel streaks. The upper surface is pink or red, and is beset with little red projections, which are called glands.

In addition to these glands there are on the upper surface of each lobe of the leaf three spines, which are of extreme delicacy and are always arranged as if at the angles of a triangle, about the middle of the lobe. The petiole or leaf-stalk is of the shape of the handle of a teaspoon, the only difference being that its upper surface is channelled along the middle instead of being flat. At its end it is united to the leaf by a jointed isthmus, of about a line in length and breadth.

The mechanism by which the leaf catches insects is strikingly like that of a rat-trap. When it is open the lobes are, as already said, at right angles to each other. When an insect comes into contact with either, at once they approach each other, but this does not occur with the suddenness and completeness that it occurs in the rat-trap. The lobes begin to close sharply enough, but yet do not come quite together,

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remaining for some time half open. When the leaf is in this state of half-closure, it is easy to see what is the significance of the two sets of prongs already mentioned. You see that they are set on alternately along the opposite edges of the lobes, so that just like the teeth of the rat-trap they fit into each other. It is not difficult to see why this is—*i.e.*, why the spikes are arranged alternately. The leaf, being a trap, is made like a trap. The insect having been caught, at once begins to think of escaping and makes efforts to do so, which may or may not be successful. If it is small, it easily finds its way out through this wonderful grating formed by the crossing of the teeth; and in this case the leaf soon recovers, expands again, and is ready for the capture of another victim. If it is large, all its efforts to regain its liberty are futile. Repelled by its prison bars, it is driven back upon the sensitive hairs which stick into the interior of its cell, and again irritates them. By doing so, it occasions a second and more vigorous contraction of the lobes. The result is that the creature is not only captured, but crushed; not only swallowed, but, in reality, digested.

Even after slight irritation, such as that which is produced when a fly merely touches one of the sensitive hairs, or when they are touched with a dry camel-hair pencil, the leaf remains closed for some time, usually more than twenty-four hours. But if a fly is caught, or any other nutritious substance is introduced, the case is different. For a week or more the leaf remains closed on its prey, the two lobes being at first pressed flat against each other. The two lobes, indeed, close round the fly so completely that its body gives rise to two projections of the (outer) surface of each lobe, which correspond to it in form. The result of this is that the secreting glands on the part of the leaf against which the body of the fly presses are irritated, and begin to pour out a quantity of secretion. Gradually this effect extends to the rest of the leaf, and consequently its cavity becomes gradually extended.

The meaning of this bulging is that the fly is becoming digested. The liquid juice which the glands pour out has the property of so acting on the tissue of the fly's body that they at first become diffluent and then are absorbed.

When we call this process "digestion," we have a definite meaning. We mean that it is of the same nature as that by which we ourselves, and the higher animals in general, convert the food they have swallowed into a form and condition suitable to be absorbed, and thus available for the maintenance of bodily life.

Between the process of gastric digestion and the digestion of the Dionæa leaf, the resemblance, as Mr. Darwin has found by a most elaborate comparative investigation, is complete. It digests exactly the same substances in exactly the same way—*i.e.*, it digests the albuminous constituents of the bodies of animals just as we digest them. In both instances it is essential that the body to be digested should be steeped in a liquid, which in Dionæa is secreted by the red glands on the upper surface of the leaf; in the other case, by the glands of the mucous membrane. In both the act of secretion is excited by the presence of the substance to be digested. In the leaf, just as in the stomach, the secretion is not poured out unless there is something nutritous contained in it for it to act upon; and finally, in both cases the secretion is acid. As regards the stomach, we know what the acid is: it is hydrochloric acid. As regards the leaf, we do not know precisely as yet, but Mr. Darwin has been able to arrive at very probable conclusions, the setting forth of which we look forward to in his expected work on the Droseraceæ.

Dr. Sanderson next proceeded to show that the contractility of the leaf of Dionæa corresponds in all important respects with that of the contractile tissues of animals. He took, as the best example of animal contractility, that of voluntary muscle—the best, not only because it exhibits in perfection the property of contracting in answer to excitation, but it has been so perfectly investigated by physicists, that the conditions under which the property manifests itself are very exactly known. Having first drawn attention to the change of form which muscle undergoes in contraction, and to the relation between the chemical changes which go on in the muscular tissue when in the living state, and the work done and heat produced in the discharge of its function, he proceeded to dwell more particularly on the fact that, in muscle, as in all other irritable and contractile tissues in animals, the manifestation of electro-motive force is inseparably connected with the special function of the tissue—viz., with contraction. So long as the muscle lives, its electro-motive force is found to be, on the whole, proportional to its vigour. As it gradually loses its vitality, its power of contracting and its electro-motive force decline *pari passu*. When it contracts, the manifestation of electro-motive force diminishes in proportion to the degree of contraction, and ceases when the contraction is complete.

The same relation between the manifestation of electro-motive force and contraction which has been long known to exist in muscle is also to be observed in the contraction of Dionæa. This was determined by a series of experiments communicated to the Royal Society by Dr. Sanderson, some of the most striking of which were repeated at this lecture.

Among the most important conclusions were these:—

1. There exists a current from the proximal to the distal end of the leaf—the normal leaf-current. In the leaf-stalk, a current is indicated which is opposed to that in the leaf; this may be called the stalk-current. To demonstrate these two currents, it is not necessary to expose any cut surface to the electrodes.

2. In a leaf with the petiole attached, the strength of the current is determined by the length of the petiole cut off with the leaf, in such a way that the shorter the petiole the greater is the deflexion. If, instead of completely severing the leaf, in cutting it into sections, it is merely all but divided with a sharp knife, the cut surfaces remaining in accurate apposition, the result is exactly the same as if the severance were complete; no further effect is obtained on separating the parts.

3. On directing a weak continuous electrical current down the petiole (*i.e.*, from the leaf), the normal deflexion is increased; on directing the current towards the leaf, the deflexion is diminished.

4. *Negative Variation.*—If, the leaf being so placed that the normal leaf-current is indicated by a deflexion leftwards, a fly be allowed to creep into it, it is observed that the moment the fly reaches the anterior (so as to touch the sensitive hairs on the upper surface of the blade), the needle swings to the right, the leaf at the same time closing on the fly. The fly having been caught does not remain quiet in the leaf; each time it moves, the needle again swings to the right, always coming to rest in a position somewhat further to the left than before, and then slowly resuming its previous position. The same series of phenomena present themselves if the sensitive hairs of a still expanded leaf be touched with a camel-hair pencil. If the closed leaf be gently pinched with a pair of forceps with cork points, the effect is the same. If the leaf-stalk be placed on the electrodes as before, with the leaf attached to it, the deflexion of the needle due to the stalk-current is increased whenever the leaf is irritated in any of the ways above described. If half the lamina be cut off, and the remainder placed on the electrodes, and that part of the concave surface at which the sensitive hairs are situated be touched with a camel-hair pencil, the needle swings to the right as before. If one of the concave surfaces of the open leaf be pierced with a pair of pointed platinum electrodes, in connexion with the opposite ends of the secondary coil of an induction apparatus, it is observed that each time that the secondary circuit is closed the needle swings to the right, at once resuming its former position in the same manner as after mechanical irritation. No difference in the effect is observable when the direction of the induced currents is reversed. The observation may be repeated any number of times; but no effect is produced unless an interval of from ten to twenty seconds has elapsed since the preceding irritation. If the part of the concave surface of the leaf which is nearest the petiole be excited, whether electrically or mechanically, the swing to the right (negative variation) is always preceded by a momentary jerk of the needle to the left,—*i.e.*, in the direction of the deflexion due to the normal leaf-current; if any other part of the concave surface be irritated, this does not take place. Whether the leaf is excited mechanically or electrically, an interval of from a quarter to a third of a second intervenes between the act of irritation and the negative variation.

Dr. Sanderson has also found that the leaf-current and its negative variation can be demonstrated in a leaf which is still attached to the parent plant. Few more interesting or more important communications have of late been made to science than these researches of Dr. Sanderson's, especially if taken in connexion with Mr. Darwin's expected work.

WATER is now very scarce in the neighbourhood of Northowram. At Elland, bills have been placarded by order of the Local Board, cautioning the public against wasting the public water. Offenders are to be prosecuted.

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ON THE TREATMENT OF LEPROSY WITH GURJUN OIL.(a)

THE marked attention that is now being paid in different regions of the world to the investigation of leprosy, leads us to begin to hope that a long-standing reproach to the humanity, as well as to the science, of medicine may soon be, to a great extent at least, effaced, and even that the present generation may effect for the amelioration of the poor leper what a preceding one, little more than half a century ago, wrought out for that of the neglected lunatic. In both instances, routine based on ignorance and prejudice has been the fruitful mother of cruelty and shame. All records, therefore, of the actual personal experience of medical observers it is most desirable to obtain.

When Dr. Dougall arrived at the convict settlement in the Andaman Islands in March, 1873, the condition of the inmate lepers (twenty-four in number—twenty-two males and two females) in the separate barrack assigned to them was deplorable. Some could only crawl about from painful ulcers on their feet and toes, and all had "that blank, hopeless look which conveyed to my mind the idea of a living death." They were terribly annoyed with the swarms of flies continually around their sores. Beyond the application of carbolised oil to these, and the daily use of a bath, with bran as a detergent, no other treatment had been employed. The patients had been from one or two to ten years, and longer, at the station. Dr. Dougall determined to try the effects of the "gurjun" or "wood oil," which, although it has been long known in India as an occasional remedy in gonorrhœa, and various other affections of mucous membranes, has never been tried before in the treatment of leprosy.

This substance is an oleo-resinous exudation from many of the *Dipterocarpeæ* family of plants, which are all natives of the hot damp forests of India and the Malayan Islands. At first Dr. Dougall formed an emulsion of it with cocoanut oil, but subsequently with lime-water, which answered admirably well both for external and internal use. One part of the oil and three of lime-water, shaken violently together until they thoroughly unite, constitute his "gurjun ointment" for outward friction; and a mixture of equal parts of the two ingredients served for inward administration. "It is not disagreeable to the palate, and although the lepers now get half-ounce doses of the emulsion night and morning, they constantly ask for more."

Finding that dry earth finely pulverised served better than anything else to cleanse the skin, Dr. Dougall substituted it for the bran which had been formerly in use. At 5.30 a.m. the patients washed themselves in a neighbouring stream, using the fine earth as a detergent. They had then their morning dose of four drachms of the oil and lime-water, and proceeded to rub themselves all over with the "gurjun ointment" for a couple of hours, rubbing it well in, and using as much of it as was needful for the purpose. The exercise in this prolonged friction was beneficial, "both physically and mentally." The process was repeated in the afternoon along with the second dose of the emulsion. It was not long before the good effects of the treatment were obvious, and these became gradually more and more decided. "It was pleasing to see the will with which men, who for years had not been able to handle a walking-stick, on account of loss of fingers and numbness in the arms, now set about this sort of work (gardening), and they are evidently proud of being again able to work when such a hope had been abandoned long ago." The success was nearly uniform. "Of the twenty-four cases under treatment during the past six months, every one of them has decidedly benefited by its use: every ulcer, without exception, has healed up, and not broken out again; but the most marked benefit has been derived by those suffering from the anæsthetic form of the disease."

Respecting the *modus operandi* of the remedy, Dr. Dougall remarks:—

"The change the tubercles undergo in the process of reduction is worthy of notice. After the lapse of some time, the tubercle seems to become more movable and loose at the base, and it is felt to be softer there than at the apex; this softening process gradually approaches the surface, and at last a watery bleb forms, and this bleb soon bursts and allows a thin, serous, clear fluid to escape, and a marked diminution is then observed as regards the size of the tubercle. This may take place two or three times until the tubercle is quite reduced. It expedited matters very much to puncture these watery vesicles, and allow the fluid to escape; this did not interfere with the rubbing process. I have seen a tubercle on the helix of the ear entirely subside after one formation of this vesicle. The gurjun ointment, though thoroughly rubbed in for four hours every day, produces no vesication, and causes no pain whatever. It seems to be through its constitutional effects that the tubercles soften from within outwards." The internal use of the gurjun oil improved the digestion, and acted as a diuretic and purgative.

We shall briefly cite the particulars of two out of the twenty-four cases whose histories are recorded.

A man, aged thirty-eight, had "the helix of right ear and lobe of left ear tubercular; swelling of left hand and fingers, with tubercular elevations over all the joints; ulceration along inner side of left index finger and on palm of hand; left foot swollen, and excavating ulcers under both big toes; both hands and forearms, and both legs from knees downwards, are anæsthetic." The numbness was so complete in both hands that without his eyesight he could not hold a walking-stick, and his fingers were so swollen that he could not bend them. Within two months after beginning the treatment, the tubercles on ear and fingers had considerably subsided, and he was able to use his hands to a slight extent, the numbness having diminished. In three months more, the tubercles had all gone down, and the fingers were of their natural size and shape. Sensation had been restored completely to both legs and arms, so that he could use a heavy axe to chop firewood with the most perfect freedom, and he was most anxious to return to work.

In Case 15, a man, aged sixty-four, had been sent to the leper ward soon after arriving at the settlement in 1866. "Body all covered over with raised, reddish, irregular patches, covered with scales; left foot swollen, and a large excavated ulcer on the sole; another ulcer on the big toe of right foot. He crawls about on his hands and hips, as he is unable to walk. The whole surface of the body (with the exception of the face and ears), and both legs and both hands, are anæsthetic." Within three weeks after the treatment was commenced—on May 23—"the discoloured patches have somewhat faded, and become level with the surrounding skin; swelling of foot subsided, and ulcers healed." On July 25—"All the patches free from scales, and level, only look a little lighter in colour than the rest of the skin. He can now walk about quite well on his feet, and he is much improved in general health." Two months later—"All the spots on the body have disappeared; swelling of foot subsided; ulcers healed up entirely; and this old man is now able to run about; sensation quite restored to all parts of the body."

The marvellous results here described were, it is to be observed, obtained quite independently of any dietetic or other sanitary co-operation. No change whatever was made in the food—which consisted entirely of rice, dhal (peas), curry stuffs, and vegetables, with five ounces of fresh fish four times, and curdled milk twice a week—in order that every doubt as to the real cause of the improvement from the six months' use of the gurjun oil treatment might be avoided. "The money value of the rations may be set down at 7s. 9d. a month—no very extravagant sum upon which to feed a man suffering from a disease in which good living is deemed an essential element in every mode of treatment yet adopted or advised." No wonder that many of the poor sufferers complained of their insufficient dietary! Dr. Dougall considered that they were underfed.

Should his experience in future, and that of other medical men, confirm the results now recorded, Dr. Dougall will certainly have achieved a rare success in healing a most intractable malady. For the present, we can only express our cordial hopes that he may be so fortunate.

(a) "Report on the Treatment of Leprosy with Gurjun Oil." By J. Dougall, M.D., Surgeon-Major, Officiating Senior Medical Officer, Port Blair. Pp. 38. Calcutta. 1874.

THE Treasurer of the Devonshire Hospital and Buxton Bath Charity has received from the executors of William Barnett, Esq., late of Macclesfield, the sum of £1000, bequeathed by him to the Charity, free of legacy duty.

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THE WEEK'S PARLIAMENTARY DEBATES.

If the Parliamentary session has been unproductive of great social reforms, no one can complain that the First Lord of the Treasury has forgotten the pledge which he made to his constituents at Glasgow, when, on being installed as Lord Rector of the University, he said "*Sanitas sanitatum, omnia sanitas.*" Several measures affecting the medical profession and their interests have been before the House of Commons. The debates of the past week have been pregnant of medical interest. The Health of Women and Children in Factories, the Higher Education of Women, Medical Charge of Convict Prisons, Importation of Infectious Diseases, the Health of *Employés* at the Post Office are the principal subjects that have engaged the attention of the House during the past few days.

Mr. Cross, on behalf of the Government, moved, on June 11, the second reading of the Factory Bill, the provisions of which are mainly intended to limit the hours of employment for women, young persons, and children to fifty-six hours and a half weekly, to extend the age of those children who work half-time from thirteen to fourteen, and after sufficient time has been given to accommodate and modify existing arrangements upon the new scale—*i.e.*, after 1875—that the age at which children shall be employed at all in factories must not be under ten. It is not proposed to legislate at present for printing, dyeing, or bleaching works, as these will be embodied in a subsequent measure should this prove to be advantageous to the health and well-being of the operatives. Existing measures of control over factories have been shown to be a great boon to the *employés*, so that the measures proposed by Mr. Cross were very well received. Mr. Fawcett alone made a stand against the Bill, his arguments being mainly upon the ground of the rights of women—that is to say, he feared that by limiting the hours of women in factories they would not stand the same chance in competing with men in the labour market. The Bill was carried by a large majority in a full House.

The provisions of the Public Health Act are now making themselves felt, and the guardians of the poor, in provincial towns more especially, are showing great unwillingness further to burden the rates by improving the sanitary condition of the districts under their charge. It does seem unjust that seaport towns should be compelled to appoint quarantine officers to prevent the importation of infectious disease without any help from the imperial exchequer. Mr. Sampson Lloyd informed the House that £2600 had been spent by the town of Hull since the passing of this Act to prevent the introduction of infectious disease from foreign ports. Mr. Sclater-Booth promised that rules should be framed under which seaport towns would be relieved of certain expenses which came under the head of quarantine charges, but money spent upon local sanitary improvements must be provided by the local rates.

We are surprised to find that complaints are already being made of the defective ventilation of the sorting-rooms of the new General Post Office. We should have thought that all modern improvements in ventilation would have been adopted, and that ample accommodation now existed in this and the old building of St. Martin's-le-Grand for the post-office and telegraph clerks. Lord J. Manners informed the House that extensive alterations were in contemplation, and these would give increased space for the *employés*.

On Friday, the 12th inst., quite a surfeit of measures affecting the medical profession was before the House, and notably the Bill for the Higher Education of Women, introduced by Mr. Cowper-Temple. After Mr. Newdegate's Convents Bill, the next Bill in the order of debates was that for "the Higher Education of Women," and the advocates of women's rights will be grieved to hear that the House of Commons showed a great unwillingness to support the claims of the gentler sex. Although upwards of 300 members divided on the Convents Bill, it was with great difficulty that Mr. Cowper-Temple could secure a quorum of members, several attempts being made to count out the House. Mr. Beresford Hope was the only member who ventured to oppose the cry for "women's rights." In his opening remarks he showed that "the opponents of the measure are quite as desirous of the solid education of the sex as those who claimed for them graduation in medicine, law, or what not. Were women admitted as students they could not logically be ineligible for scholarships, fellowships, professorships, and headships, and 'sweet girl graduates' would involve 'prudes for proctors.' He protested against new-fangled inventions which would pervert women into feeble and deteriorated men."

Dr. Cameron and Mr. McLaren, the members for Glasgow and Edinburgh, spoke strongly in favour of the measure, while others—including Dr. Lyon Playfair and the Lord Advocate—adopted a middle course, and opposed Mr. Cowper-Temple's motion while advocating increased facilities for the university education of women. Mr. Henley, to the astonishment of everybody, made some rather bold assertions—first, that, according to the Census, there had been of late years a steady decline in the number of medical men in England; second, that every effort having been made by legislation and otherwise to get rid of quacks, they were as nearly as possible choked out; and third, that during the same period the death-rate had increased. If the demand for male doctors could not be met, why not admit women? It is astonishing that the House could listen to such preposterous assertions. We have shown over and over again that half the doctors in the United Kingdom can hardly live upon their professional incomes. It is a common remark that "the place is overrun with doctors." If Mr. Henley will make a list of the towns and villages where medical men are wanting, and will guarantee them such a moderate income as £200 a year, he will find plenty of qualified practitioners ready to accept his terms. But the fact is the profession is overstocked and underpaid.

The next debate was upon Convict Prisons in Ireland. Mr. Sullivan complained of the changes recently introduced into the prisons, whereby the previous custom of appointing surgeons of hospitals with considerable experience in their profession to act as visiting medical officers had been done away with, and resident surgeons appointed in their place. Sir Michael Beach explained that the change now made was deemed advisable, not only because the health of the prisoners would be better attended to, but because the same system had been adopted for many years in England, and it was found to work very well. Sir M. H. Beach explained that a similar plan of appointing resident officials had been working most satisfactorily in England, and it has therefore been adopted in Ireland, so that the prisoners could not now complain that they were neglected.

Mr. Sampson Lloyd appealed on behalf of the Port of Hull for help in carrying out the provisions of the Public Health Act, which the guardians were finding somewhat burdensome. Upwards of £2600 had been spent in preventing the importation of infectious disease. Mr. Sclater-Booth replied that rates would be made, whereby expenses connected with quarantine arrangements would be undertaken by the Imperial Exchequer, but the rest must be borne by the local sanitary authority.

On Monday, June 15, the Sanitary Laws Amendment Bill was read a second time.

On Monday next, June 22, Mr. Dunbar is to move for documents and correspondence connected with the application for a new charter by the King and Queen's College of Physicians in Ireland.

FROM ABROAD.

Professor Esmarch on the Bloodless Method.

In our number for May 30, p. 591, we adverted to the discussion upon this which took place at the meeting of the third Surgical Congress in Berlin, April 8; but as Professor Esmarch has published (in the *Wien. Med. Woch.*, May 16 and 23) his paper, which contains his latest views, we lay these in an abridged form before our readers.

He observes that since he first brought the subject before the Congress he has had the opportunity of trying his method in 200 additional cases, and that he now entertains a much higher opinion of its utility than he did then. Not wishing to weary his audience with mere statistical details, he yet feels desirous of pointing out the influence which he believes the method exerts in diminishing the mortality of large operations. Thus, of thirteen amputations of the thigh he has only lost one, and the same with respect to eleven amputations of the leg, while four of the upper arm all recovered—so that in twenty-eight of the greater amputations there occurred only

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two deaths. An amputation of the shoulder succeeded, but one of the hip-joint, which from the first was almost hopeless, failed; and of eight excisions of the large joints (three of the hip, three of the knee, and two of the elbow) only one terminated fatally. These are favourable results that cannot readily be surpassed. His clinical wards are contiguous to the medical wards, and both have long been overcrowded, and erysipelas, diphtheria, and pyæmia have been often met with. He is under the conviction that the more favourable results of the present year are due to the adoption of the bloodless method. This presents the following advantages:—

1. The small loss of blood which takes place. Everyone is aware how convalescence is retarded and endangered when the loss of blood has been large. The production of acute anæmia here is the great danger. The coagulability of the blood augments in many cases with the impoverishment of the red globules, and with this increases the danger of thrombosis and pyæmia.

2. Sponges need not be brought in contact with the unbleeding surfaces. Although he has always been very careful not to use sponges that have not been thoroughly cleansed and disinfected, yet Dr. Esmarch has still suspected that they have still had something to do with transporting contagious material, and especially the poison of erysipelas.

3. The large arteries and veins are not subjected (as they are when the tourniquet or digital compression is employed) to violent local pressure. They are equally compressed on every side by the entire mass of the soft parts being enclosed in the ligature.

Disadvantages of the method Prof. Esmarch has not met with himself, and, especially, he has not seen paralysis as a consequence of the ligature; and he believes that when this has taken place in the hands of others, it has arisen from too powerful an application of the caoutchouc tubing. Indeed, he has had to prevent his own assistants committing this error. All kinds of caoutchouc are not suitable, and he prefers the brown, non-vulcanised, and tubes or rollers made of the red caoutchouc; and in general no great force is required to completely prevent the affiux of arterial blood. The first turn should especially not be too forcible, as each succeeding one considerably increases its effect. Anyone may be easily convinced of this by passing a fine caoutchouc bandage several times around the same part of a finger. He has never met with gangrene of the flaps reported by some surgeons, and thinks this has been dependent upon other causes.

Additional advantages of the method are referred to. Thus, as a consequence of the local ischæmia and compression of the nerves, a local anæsthesia is induced, rendering operations but slightly painful. In the out-patient establishment at Kiel it is almost always resorted to for small amputations, incisions, removal of nails, etc. Generally the anæsthesia does not occur until some minutes after the application, but if Richardson's spray-douche be used it is quickly induced, as the freezing is infinitely more quickly brought about when the arteries no longer bring additional caloric with the blood.

The method allows of a thorough examination being made of diseased parts, especially in the bones and joints. On many occasions Prof. Esmarch has examined these as deliberately as in the dissecting-room before he decided whether he would perform excision or amputation. He has thus frequently been able to assure himself of the various alterations on the living body, and has submitted portions to the microscope before he would decide on operating. The same assistance is derived in the removal of small foreign bodies, such as needles, glass splinters, etc., which have become embedded in the hands or feet; and everyone knows how a constant stream of blood aggravates the difficulties in these cases, leading in some cases to the abandonment of the attempts. Now, if the situation of the body be but known, it is removed with the greatest ease, and the slight wound necessary for this usually heals by the first intention. Of the great facility with which the ends of wounded arteries may now be found, Leisrink and Stokes have published remarkable examples.

Another advantage greatly to be prized is the fact that many of the great operations can be performed without any skilled assistance whatever—a fact of importance not only in military surgery and for surgeons when alone on board ship, but still more so for practitioners in the country and in small towns. Many are the thankful communications on this head which the Professor has received from his pupils scattered about in country parts. One of them not having the apparatus with him, employed a linen binder and his elastic braces during the easy extraction of a splinter of glass which was embedded in the arm. It is very desirable that officers and soldiers going into battle should have elastic braces capable of being used in the arrest of hæmorrhage on emergency. Professor Müller, of Würzburg, suggests that in a woman dying of hæmorrhage the ligature might be applied to the four extremities so as to force the blood towards the trunk and head, thus warding off collapse and giving time for transfusion, or enabling us to dispense with this.

By means of the ligature, which may be applied at any part of the extremities, lay persons are in the position of being able to control accidental hæmorrhage, no knowledge of the places of the arteries being required, as for the application of the tourniquet. As Professor Langenbeck has remarked, in most cases an elastic bandage will answer the purpose as well as the caoutchouc tube, while its pressure is gentler and more uniform; but still there are cases in which the tube cannot be thus superseded owing to its smaller size. Prof. Esmarch cannot agree with those who think that his method is not suitable in operations upon the shoulder and hip-joint, having himself employed it in several of these with complete success. In operations upon the shoulder, blood may be prevented passing through the axillary artery by carrying the tube under the axilla, drawing it tight over the shoulder, and keeping it in a state of tension by a strong fist supported by the clavicle. Or both ends may be held together by a clamp, like that used for fixing the pedicle in ovariotomy. Bringing the tube across the chest and back to the opposite axilla, as was at first done, is objectionable, on account of the interference with respiration that is produced. In amputations at the upper part of the thigh the tube may be passed firmly once or twice around the limb just under the bend of the thigh, crossing the ends over the inguinal region and carrying them around the posterior surface of the pelvis and uniting them over the lower part of the abdomen. Or a binder may be firmly rolled up and applied as a pad over the external iliac above Poupart's ligament, and compressed by several turns of a strong caoutchouc bandage. In operations upon the hip-joint itself, however, such a bandage would be in the way, and we must then compress the aorta in the umbilical region. This can be done by means of a pad formed of a linen bandage eight metres long and six centimetres broad. This is wound around the middle of a wooden staff the thickness of a thumb, and a foot in length, which enables the pad to be retained in its right position. The pad is applied immediately under the umbilicus, and is compressed powerfully against the spinal column by five or six turns of a caoutchouc bandage six centimetres in breadth. By this means the flow of arterial blood through the aorta can be completely arrested, provided care has been taken beforehand to empty the intestinal canal by means of purgatives and enemata. In some cases it is preferable to employ a pediculated pad, which allows of its being pressed deeper into the abdomen. Prof. Esmarch has had a slit made in the steel pedicle of his pad (*pelote*), through which the turns of the caoutchouc binder can be easily passed. Several persons have recommended raising the limb for some minutes prior to the operation before applying the compressor, but this is by no means of the same utility as the methodical application of an elastic bandage. The only cases in which the raising the limb is of advantage are those in which the presence of foul secretions renders it unadvisable to force them by the bandage into the cellular tissue and lymphatic system. It is very desirable, in cases in which there are open wounds, ulcers, or fistulæ of the extremities, that these should not only be covered with varnished paper, etc., but that pure caoutchouc bandages only should be employed, because these are much easier cleaned than are those in which silk or cotton enter into the composition.

THE DROGHEDA ELECTION PETITION.—In the House of Commons, last Monday evening, the Speaker informed the House that he had received from Mr. Justice Barry a certificate to the effect that in the matter of the Drogheda election petition he had submitted a question of law to the Court of Common Pleas, and that the judges were equally divided on the points, and that he had decided it himself in favour of the sitting member, whom he declared to have been duly elected, and, further, that there was no evidence of corrupt practices, or reason to believe that they had extensively prevailed at the late election. Consequently, Dr. William H. O'Leary is confirmed in his possession of the seat for the borough of Drogheda.

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REVIEWS.

Handbuch der Speciellen Pathologie und Therapie: Dritter Band. Hautkrankheiten, bearbeitet von Dr. Ferdinand Hebra und Dr. Moriz Kaposi. 2ter Theil, 1ste und 2te Lieferung. Erlangen, 1870-1872.

On Diseases of the Skin, including the Exanthemata. By Ferdinand Hebra, M.D., etc., and Moriz Kaposi, M.D., etc. Vol. III. Translated and edited by Warren Tay, F.R.C.S., etc. New Sydenham Society, 1874. Pp. 398.

There are few subjects in the whole domain of practical medicine better suited to the genius of Teutonic minds than cutaneous diseases. There is ample scope for the most liberal exercise of their pet faculty of theorising; there is room for the laborious patience and the careful and lover-like criticism and study of nature which are the real *forte* of German *savants;* and, beyond all this, they may coin any number of barbarous appellations they like, and even gain repute in proportion to the vigour of their attacks on our auditory nerves. Of late years, the Vienna school of dermatologists, headed by Hebra, has justly claimed a large share of public attention, and has not unworthily entered the lists in this department against the famous specialists of both France and England. It is now nearly eight years ago that the New Sydenham Society engaged the able pens of Drs. Hilton Fagge and Pye-Smith to render the writings of Hebra on diseases of the skin as familiar to English readers as they are to his *confrères* in the Fatherland.

Volumes I. and II. were reviewed in our pages on their first publication, and we need not further mention them, except to say that these gentlemen have found an able successor in Mr. Waren Tay, who is one of the surgeons at the Blackfriars Hospital for Diseases of the Skin, and, therefore, more than usually fitted for such a task. The greater part of the original of the present volume was written by Dr. Kaposi, who is Hebra's colleague as well as literary co-partner. Like the preceding volumes, the English translation has been revised by the German authors, and is therefore of superior authority, in some matters, to the German edition. The subjects treated of are, perhaps, of greater interest to the general physician or surgeon than the contents of the former volumes. The interesting topics of pigmentary abnormalities, hypertrophy and the opposite conditions of the hair and nails, the varieties of alopecia, keloid, vitiligoidea, elephantiasis, leucoderma, and new growths, being all included, although a portion of the latter, with lupus and leprosy, are to form a fourth volume. There are three woodcuts, one of which, showing a keloid growth embedded in a cicatrix, is published for the first time, and is peculiar to the English translation, being taken from a drawing sent over on purpose by Dr. Kaposi. We have submitted Mr. Tay's work to the criticism of a gentleman who is familiar with the original, and had even contemplated undertaking an English version on his own account; and, more than this, we have ourselves compared a very large number of passages with the original; and the result is that we feel fully justified in saying that Mr. Tay has performed a difficult task with very great ability and success. Dr. Kaposi's meaning is often difficult to guess, for he has certainly never cultivated the art of writing with a tithe of the ability he has devoted to dermatology. Hence, even his own countrymen sometimes confess that they find him "difficult reading." His translator has, however, contrived to make his involved sentences easily intelligible, and the work is far pleasanter to read in its English dress than in the original. Mr. Tay has been exceedingly careful in revising the quotations from, and references to, Continental authorities; and has enriched the work, especially in the chapters on "Xanthoma" (vitiligoidea) and "Keloid," as elsewhere also, with valuable notes of his own, embodying the views of English authorities, and sometimes his own experience on the questions discussed, in the body of the work. We regret that he has adhered to the somewhat dubious method of marking English inches and lines by accents—a fruitful source of errors in microscopic measurements, and a plan extremely puzzling to foreigners (*see* note at page 94 in illustration),—but this is indeed a minor blemish, and of little consequence to those most likely to use the work.

A carping critic might object to the orthography of some of the Greek and Latin names of disease, since here and there there are obvious mistakes. But these faults are shared by the original in many places—for Germans, with all their love of minutiæ, are often grossly careless in the matter of spelling. It is also only fair to add that, after all, these mistakes are not very numerous, and that the pages are singularly free from other errors of the pen or press.

We note with satisfaction that the famous, or infamous, Plica Polonica is somewhat summarily disposed of as unworthy the name of a disease, unless all dirt be classed in a similar category. We think, however, that Dr. Kaposi has erred in deciding against the occurrence of rapid blanching of the hair on the mere grounds of his inability to explain the process. We ourselves know of some authentic instances, other than those usually quoted; and we think there are many facts in chemistry and in natural history which are parallel and cognate, if they do not exactly serve to demonstrate what, after all, must be a matter of the credibility of witnesses. It has been objected that the alleged fact rests chiefly upon the testimony of poets, novelists, and historians of ardent temperament and imaginative minds; but the objectors have forgotten that even poets are often more strictly accurate than professed naturalists—in such matters, for instance, as the song of the nightingale and the plumage of other birds. Men of science are too apt to limit their psychical horizon to the dimensions of their physical one. Our author, however, is far more just to French and English authorities than most of his countrymen, and he has collected a large quantity of curious matter on a variety of topics connected with the toilet and cosmetics. A reference to "Ten Thousand a Year" might perhaps have been added with some pertinency to the section on hair-dyes, at the close of which the author states with great *naïveté*—"Much special experience is undoubtedly required to carry out this plan, for we have seen, even in experienced hands, etc., a colour produced which was some degrees removed from what was desired!" We cannot conclude this review without again complimenting Mr. Tay on the efficient manner in which he has discharged his twofold duties of editor and translator.

GENERAL CORRESPONDENCE.

GLUTEAL ANEURISM.

Letter from Mr. Richard Davy.

[To the Editor of the Medical Times and Gazette.]

Sir,—Professor Holmes, in his lecture on "Gluteal Aneurism" (June 8), mentioned the late Professor Syme's case, which I saw operated on in Edinburgh. The aortic tourniquet (Lister's) was then used. I venture to draw surgical attention to the fact that the internal iliac artery may for a time be effectually controlled by pressure through the rectal on the pelvic wall, which method of applying pressure may possibly be of service in future cases.

I am, &c.,

June 10. Richard Davy.

REPORTS OF SOCIETIES.

THE PATHOLOGICAL SOCIETY.

Tuesday, May 19.

Dr. Charles J. Hare, M.D., in the Chair.

Dr. Goodhart exhibited a specimen of Fibroma of the Ovary. The growth had undoubtedly originated in the ovary, and not in the broad ligament. Dr. Goodhart also exhibited a specimen of Secondary Cancer of the Uterine Mucous Membrane from the body of a woman of twenty-six, on whom ovariotomy had been performed three weeks before her death. Post-mortem considerable disease was found remaining in the pedicle, the Fallopian tubes contained a milky juice, and the mucous membrane of the uterus was thickened. Close examination showed that the last-named change was due to excessive disease. The superficial epithelium had become tesselated, and the glands were replaced by irregular groups of cells. The case was further of interest as an example of "spermatic influence," the cells having travelled downwards and caused a similar growth in the tissue which they invaded. Secondary growths in the lungs in this case were not of the same type, but consisted of round cells.

Dr. Hilton Fagge showed seven specimens of Fibroid

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Degeneration of the Heart, which had occurred at Guy's Hospital within a few months. The first specimen was from the body of a man of fifty-five, who died of gangrene of the right lower limb. He had previously been healthy, and had never had syphilis. The heart was found to weigh thirteen ounces. On the posterior surface of the left ventricle was a patch of lymph as large as a half-crown, and corresponding to this internally a small cavity in the wall. The latter condition was repeated over the heart. Along the greater part of the posterior surface of the ventricle, the cardiac tissue was found to be converted into a material of a dull greenish colour. At the apex there was a more natural fibroid change. The arteries of the gangrenous limb were plugged, but probably secondarily, and not by embolism. The second specimen was from a patient with a history of rheumatism, who died of cardiac dropsy; a loud systolic murmur had been audible at the apex. The heart, which weighed thirty-four ounces, was universally and firmly adherent to the pericardium. The left ventricle was greatly dilated and not much thickened; its antero-posterior diameter measured five inches. The mitral valve was but slightly diseased, there being a few fresh granulations and some old change. A part of the wall of the left ventricle was fibroid. There was no reason to think that the endo- and peri-carditic conditions were connected by extension. The aortic valves were healthy. The third specimen was very remarkable, inasmuch as the disease had the form of a number of aneurismal cavities in a tough fibroid part of the wall, some of which looked like tunnels in the tissue. The patient, a woman of thirty, had been admitted for suppurating glands of the neck. The heart weighed twenty-five ounces, and was universally adherent to the pericardium. The left ventricle formed a large chamber, very wide from before backwards. The fibroid patch occupied a great part of the wall towards the base; at places it was an inch thick, at other places it merged into the healthy tissue. The peculiar cavities referred to occurred at intervals. The fourth specimen was from a man who dropped down dead while wheeling a barrow. The heart, weighing sixteen ounces, contained near the apex a fibroid spot which might have been overlooked but for careful examination; the septum contained two other fibroid spots. The fifth specimen was the heart of a man aged sixty-six, who had suffered from hæmaturia, and whose kidneys were affected with cystic disease. The aortic valves were calcified; there was also marked fibroid disease of the posterior wall of the left ventricle, in small spots. The subject of the sixth specimen was a man aged eighty-five, who dropped down in travelling; the heart weighed ten ounces and a half; there was fibroid change in the septum and towards the apex. The seventh specimen was from a man aged sixty-nine, who had been perfectly well until six weeks before; dropsy then appeared; there was no murmur, and no sign of cardiac hypertrophy. The heart weighed twenty-two ounces; the right side was dilated, the left ventricle was dilated and hypertrophied. At the seat of disease the wall was very thin, and partly converted into a fibroid tissue, gristly and grey. Dr. Fagge said that the occurrence of these seven cases since last August seemed to indicate that the condition only required to be carefully looked for, especially as it was more common on the posterior wall, which was frequently left unexamined. It was difficult to say why this should cause sudden death. As for the pericarditis—in the first case it was manifestly due to the internal disease; might not some of the cases of fibroid change, which seemed secondary, be really primary, like this. In not one of the cases was there any lesion pointing to syphilis, nor was the change, in fact, the same as that in gummata; the patches consisted of true fibrillar tissue. One case was connected with senile gangrene, and in others there was considerable disease of the arteries. Clinically, the symptoms were of all kinds. Pathologically, he had searched for a layer of small-celled growth, but without success; in one case he saw scattered cells, in another he could almost fancy the muscular fibres themselves being converted into fibrils.

Dr. Gairdner, of Glasgow, said that he happened to possess preparations of fibroid heart different from any of those shown. The examination of his series had convinced him that the disease may originate in two modes—(1) as a secondary change of a previous deposit; or (2) as a primary alteration. The second mode was difficult to demonstrate, but still real. The aneurismal specimen pointed to a previous disease causing relaxation.

The President asked what the connexion was supposed to be between the softened and the fibroid portions in the first case?

Dr. Fagge replied that he believed the fibrous change followed the change in the muscular substance, and that in the first specimen the latter alteration was comparatively rapid, so that the grey-green-coloured tissue remained.

Dr. Moxon said that it was remarkable how wide-spread the belief is that syphilis is connected with fibroid disease of the heart, and yet all Dr. Fagge's cases wanted it. Did not one of the cases have a fibroid testis? As for Dr. Gairdner's remarks, he quite agreed with them.

Dr. Green remarked that several of Dr. Fagge's specimens showed chronic adhesion of the pericardium. He had himself quite recently examined several specimens of adherent pericardium, and he had found a small-celled growth extending also between the muscles. He therefore believed that some of the cases of fibroid heart might be connected with adherent pericardium, and that the danger of the latter condition might be due to such secondary disease. In a specimen which he had shown at the beginning of the session the change was nearly limited to the interior. He believed that most instances of fibroid heart are secondary to endocardial or pericardial disease; that another group are syphilitic in origin; and a third primary.

Dr. Fagge stated, in reply to Dr. Moxon's query, that the testes were not examined in the case he referred to. Giving the details of the case associated with diseased cervical glands, he said that it was probably not syphilitic. One case only was associated with rheumatism.

Dr. Fagge also showed specimens of Fatty Tumours from the Neck and the Thyroid Body from a case of Sporadic Cretinism, which he had described in the *Transactions of the Medical and Chirurgical Society*. The subject of the disease died at the age of twenty-three. He was only two feet in height. The thyroid, which was believed *intra vitam* to be absent, was not only present but in part goîtrous. The skull closely corresponded to that described by Virchow. The cerebellum seemed natural. The tumours external to the sterno-mastoids were like fat, but more of a pink colour. Somewhat similar masses existed below the clavicles. The heart was small. The testes were quite undeveloped. Dr. Fagge also exhibited photographs of three cretins in one family.

Dr. Squire said that he had reason to believe from certain investigations which he had made that iron-pyrites in the soil had something to do with the occurrence of goître.

Dr. Fagge also exhibited a specimen of Bladder after Lithotomy. It was of interest only as presenting a cicatrix on the left side of the prostate.

Dr. Morell-Mackenzie showed a specimen of Papillomatous Growth from the Larynx and Trachea, from a lady of seventy-two, who died of congestion of the lungs. Thyrotomy had been performed in 1868, and a growth removed. This had returned, and been removed in parts. Post-mortem a small growth of a similar character was found in the trachea.

Dr. Mackenzie also showed a specimen of Bronchocele from a Dog. The animal, aged eight years, lost his voice, had difficulty of swallowing, became prostrate, and died after an interval of fury. The cause of the symptoms was discovered post-mortem to be an impacted sheep's knuckle-bone, which had set up ulceration. There was along with this a fibro-cystic goître, and examination showed that the tumour had grown in and pressed the bone into the œsophagus.

Dr. Crisp had seen several cases of bronchocele in dogs. He was told that in some parts of South America all the dogs above a certain altitude have goître.

Dr. Whipham said he had had a dog with the same disease, which was cured by blistering and consequent suppuration.

(To be continued.)

Consumption of Horseflesh in Paris.—The horse-butchers during the first quarter of 1874 have sold 2111 horses, mules, and asses for food. In 1872 the numbers were 1275, and in 1870, 980. The same progress is making in the provinces. The Society for the Propagation of the Sale of Horseflesh has just decreed a medal to M. Carder for his mode of preserving horseflesh. Some of this, which was prepared by him in February, 1871, and examined in April, 1874, was found to have presented every analogy to beef preserved by the best methods.—*Union Médicale*, June 9.

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MEDICAL NEWS.

KING AND QUEEN'S COLLEGE OF PHYSICIANS, IRELAND.—At the usual monthly examination meetings of the College held on Tuesday, Wednesday, and Thursday, June 9, 10, and 11, the Licence to practise Medicine was granted to—

Chartres, William.
Fendick, Rowing William.
Given, Marcus.
Halton, Matthew Corri Stephen.
Lewis, Samuel Thomas.
Martland, William.
Molony, John.
Scott, Henry Mark.
Wybrants, Joseph Henry.

The Licence in Midwifery was granted to :—

Given, Marcus.
Halton, Matthew Corri Stephen.
Lewis, Samuel Thomas.

APOTHECARIES' HALL.—The following gentlemen passed their examination in the Science and Practice of Medicine, and received certificates to practise, on Thursday, June 11 :—

Hope, James William, Hay, Breconshire.
Plant, Henry Walter, 61, Bunhill-row, E.C.
Pocock, Walter, 337, Brixton-road, S.W.
Solly, Samuel Edwin, The Priory, Roehampton.

The following gentlemen also on the same day passed their primary professional examination :—

Lewis, Joseph, Guy's Hospital.
Thompson, Alfred, London Hospital.

BIRTHS.

CARSON.—On June 12, at Portrush, the wife of A. T. Carson, M.D., of a son.

EDWARDS.—On May 28, at Antigua, West Indies, the wife of W. H. Edwards, jun., M.D., M.B., M.R.C.S. Eng., of a son.

HAYES.—On June 13, at Basingstoke, the wife of Hawkesley Roche Hayes, L.R.C.P. Lond., M.R.C.S. Eng., of a son.

SHEA.—On June 11, at Reading, the wife of John Shea, M.D., of a son.

MARRIAGES.

BELCOMBE—DUMBRECK.—On June 10, at St. Paul's Episcopal Church, Edinburgh, the Rev. Francis Edward Belcombe, M.B., of The Brooms, Staffordshire, and Murcheston-avenue, Edinburgh, and late Vicar of Whitley, Cheshire, to Kate, youngest daughter of William Dumbreck, M.D., F.R.C.S. Edin.

HARTLEY—ALDRIDGE.—On June 16, at St. George the Martyr's, Queen-square, Edmund Baron Hartley, surgeon, son of E. Hartley, L.K.Q.C.P., M.R.C.S. Eng., L.S.A., to Constance Ellen, eldest daughter of Walter William Aldridge, Esq., of 31, Bedford-row, and 38, Mecklenburgh-square.

DEATHS.

CAMERON, ROBERT, M.D., at 18, New North-road, Huddersfield, suddenly, on June 2, aged 59.

FERRIS, GEORGE THOMAS, M.R.C.S. Eng., Inspector-General of Hospitals, at 7, St. George's-terrace, Stonehouse, Devon, on June 13, aged 60.

JENNETT, MATTHEW IGNATIUS, son of M. Jennett, M.R.C.S. Eng., L.A.H., at Birkenhead, on May 20.

SCOBELL, LILY, the beloved wife of Tom E. Scobell, M.B.C.S. Eng., at Ridgway, Plympton St. Mary, on June 14, aged 27.

WOLLASTON, ALEXANDER LUARD, B.A., M.B., F.R.S., at Hollington, near Hastings, on June 11, in his 70th year.

VACANCIES.

In the following list the nature of the office vacant, the qualifications required in the Candidate, the person to whom application should be made, and the day of election (as far as known) are stated in succession.

CARLISLE DISPENSARY.—Assistant House-Surgeon. Candidates must be duly qualified and unmarried. Applications, with testimonials, to J. H. W. Davidson, Esq., Honorary Secretary, 8, Devonshire-street, Carlisle.

CHARING-CROSS HOSPITAL.—Assistant-Physician. Candidates must be duly qualified. Applications, with testimonials, to the Secretary, on or before June 23.

CHARING-CROSS HOSPITAL.—Medical Registrar. Candidates must be duly qualified. Applications, with testimonials, to the Medical Committee, on or before July 1.

DERBY COUNTY LUNATIC ASYLUM.—Assistant Medical Officer. Candidates must be duly qualified in medicine and surgery. The office will be vacant on August 2. Applications, with testimonials, to John Barber, Esq., County Lunatic Asylum, Mickleover, Derby.

NEW LUNATIC FARM ASYLUM, WOODILIE, LENZIE JUNCTION.—Medical Superintendent. Applications, with testimonials, to Mr. P. Beattie, Inspector of Poor, Barony Parochial Chambers, 38, Cochrane-street, Glasgow, on or before July 1.

NORTHAMPTON GENERAL INFIRMARY.—Honorary Physician. Candidates must be duly qualified. Applications, with testimonials, to the Secretary, on or before July 1.

ROYAL ALBERT EDWARD INFIRMARY AND DISPENSARY, WIGAN.—House-Surgeon. Candidates must be duly qualified. Applications, with testimonials, to the Honorary Secretary, on or before June 27.

ST. GEORGE'S HOSPITAL, HYDE-PARK CORNER.—Resident Medical Officer. Candidates must be duly qualified. Applications, with testimonials, to the Secretary (of whom further information may be obtained), on or before June 30.

ST. PANCRAS AND NORTHERN DISPENSARY.—Resident Medical Officer. Candidates must be legally qualified. Applications, with testimonials, to S. S. Wigg, Esq., 33, Gordon-square, W.C.

ST. THOMAS'S HOSPITAL.—Resident Assistant-Physician. Candidates must be duly qualified. Applications, with testimonials, to the Treasurer, at the office, St. Thomas's Hospital.

SEAMEN'S HOSPITAL, GREENWICH.—House-Surgeon. Candidates must be duly qualified. Applications, with testimonials, to Kemball Cook, Esq., House-Governor, on or before June 23.

STOURBRIDGE DISPENSARY.—House-Surgeon and Secretary. Candidates must be duly qualified. Applications, with testimonials, to J. B. Shepherd, Esq., Honorary Secretary, on or before June 23.

UNION AND PAROCHIAL MEDICAL SERVICE.

*** The area of each district is stated in acres. The population is computed according to the census of 1871.

RESIGNATIONS.

Frome Union.—Mr. J. A. Marsh has resigned the Nunney District; area 13,981; population 2689; salary £77 per annum.

Thorne Union.—The Hatfield District is vacant; area 16,788; population 1825; salary £20 per annum. The Stainforth District is vacant; area 10,542 : population 1943; salary £20 per annum.

APPOINTMENTS.

Ongar Union.—Reginald M. Willan, M.R.C.S. Eng., L.S.A., to the First District.

South Molton Union.—Charles Hartley, M.R.C.S., L.S.A., to the Twelfth District.

Stockton Union.—George Longbotham, M.R.C.S. Eng., L.S.A., to the Middlesborough North District.

ARTS EXAMINATIONS.—For the preliminary examinations for the diplomas of "Fellow" and "Member" of the Royal College of Surgeons, which will take place at Burlington House on the 23rd, 24th, and 25th instant, we understand that for the first-named distinction there are upwards of 100 candidates, and for the membership about 280. Well might John Abernethy exclaim—"What is to become of them all?"

WE learn from the Secretary of the Hospital Sunday Fund that on Thursday morning several large sums were received from West-end churches, making the total sum paid in amount to just over £12,000.

THE appointments of the seven District Medical Officers of the Aylsham Union as Medical Officers of Health for the Aylsham Rural Sanitary District have expired, and the Authority will not, unless compelled, renew them.

THE town of Shipley is now nearly free from small-pox, and the public schools which have been closed are now re-opened. Small-pox is on the increase in Preston.

THE DESTRUCTION OF VINES BY THE PHYLLOXERA.—At the last meeting of the Académie des Sciences, M. Dumas gave a *résumé* of the results which are derivable from the consideration of the great number of communications that have been received during a long period, concerning the havoc caused by these destructive insects. He expressed his conviction that its ravages may be arrested by the means that have now been made known and fully tested; but for this purpose he thinks that extensive co-operation (stimulated, M. Bouley suggests, by compulsory legislative measures) on the part of the vine-growers is absolutely necessary. The phylloxera makes its attacks either subterraneously at the roots of the vine, or, when it has acquired wings, by feeding on the leaves and stalks of the plant. It is during the former portion of its career alone that its ravages can be arrested. This may be done in three modes—by drowning, for which purpose the roots of the vine are submerged in water; by surrounding the roots with sand, and thus impeding the progress of the insect: and by poisoning. This last means is that which is most generally practicable, and may be accomplished by means of sulphuret of carbon, which is poured into holes made around the infested roots; but as this substance is very volatile, the sulpho-carbonates of potassium and sodium are preferable, as, owing to their deliquescence, they penetrate the soil and slowly disengage their poisonous vapours, the potash which remains being a useful manure.—*L'Institut*, June 10.

HEALTH OF THE PUNJAUB.—The weekly return of deaths in the Punjaub during the week ending Saturday, April 18 last, states that the health of the province continues unusually good. The total deaths registered have decreased from 4823 in the week ending April 11 to 4703 in the week under review. There were five deaths registered under the head of cholera, but local inquiry warrants the belief that two of the number were not genuine cases of the disease. As mentioned in last week's remarks, those cases were followed on the 20th and 21st ult. by an outbreak of very similar symptoms, affecting a large number of persons. This outbreak was attributed by the Tahsildár to the excessive use of

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sweetmeats, on which the population had been feasting very largely on the occasion of numerous weddings in the town. The abrupt termination of the sickness coinciding with the cessation of the marriage ceremonies seems to confirm the Tahsildár's suspicion. No cases of a choleraic nature have recently been reported from Jagadhri. The total deaths from small-pox have decreased from 317 to 305. Montgomery is the only district on this side of the Satlej in which this disease prevails to any great extent. Pundri, a small village in the Karnál district, has been terribly scourged by small-pox. In the last six weeks no less than sixty-two persons have died there of small-pox.

GUINEA-WORM IN RAJPOOTANA.—Facts show that guinea-worm, like other maladies, becomes epidemic and then subsides, there being a seasonal maximum of the disease occurring in the months of June, July, and August. Neither geological nor meteorological peculiarities have any effect on its prevalence; for the worm may be contracted alike on the saline plains of Marwar, and on the black soil of Kotah and Patun, in the western tracts, where the rainfall scarcely averages five inches per annum, to the districts bordering on Central India, where the monsoon is seven times more plentiful; on ground, as in Mullanee, where water is 300 feet from the surface, and in Jhallawar, where it approaches within a tenth of that distance. Neither do ordinary barometric or thermometric conditions seem to exercise control, for the guinea-worm is endemic in Bombay, where the atmosphere is moist and the temperature comparatively equable; and in Marwar, where the air is dry, and hot winds blow as from a blast furnace, and where ice at night is often succeeded by a powerful sun during the day. In Bickaneer, where water is 400 feet from the surface, where people do not wash in the wells, where bheestees' mussuks are not used, where the surface is sand, and the substratum sandstone and gravel, guinea-worm is very prevalent. If the description of Bickaneer be attentively considered, confidence in the connexion of guinea-worm with either drinking or bathing water will, perhaps, be shaken. I am not at present in a position to advance with confidence any new theory with regard to the origin of guinea-worm, but the subject will not be lost sight of. Two facts with regard to the malady have been already elucidated by the Rajpootana Dispensary Reports—1st, that the malady is not contracted at Mount Aboo, or on granite formation 2800 feet above the surrounding plain; 2ndly, that washing in the slime or dirty water of wells is *not* the cause of introduction of the worm into the system, for the people of Bickneer, who do not wash in wells or tanks (for the very good reason that there are no wells or tanks for such purpose), nevertheless suffer to a considerable extent from guinea-worm. It may also be added that if guinea-worms are really inhabitants of wells, light is not necessary for their existence, for at Bickaneer some of the wells are 300 feet deep and 3½ feet wide, the bottom being total darkness. The above would tend to the deduction that the ova of guinea-worms must be inhabitants of the ground or of the air, and not of water, although perhaps they may be called into activity by even the scanty monsoon rains falling on the parched sand of the semi-desert regions.—*Surgeon-Major W. J. Moore, in the "Rajpootana Dispensary, Vaccination, Gaol, and Sanitary Report for* 1872-73."

NOTES, QUERIES, AND REPLIES.

He that questioneth much shall learn much.—*Bacon.*

Mr. Clover.—We are sorry your paper came too late for insertion in this week's issue; it shall appear next week.

Iridotomy.—With regard to this operation, mentioned in his last letter, our Paris correspondent writes:—"This operation was performed thirty-nine times during last year, and is divided into single iridotomy and double iridotomy. The former comprised twenty-two cases, and was practised on eyes deprived of their crystalline lens, and in which the pupil was obliterated as the result of inflammatory action (secondary cataract). Single iridotomy was practised seventeen times, on eyes in which the central parts of the crystalline lens or the cornea were the seat of opacity."

Dr. M.—To Mr. G. A. Walker, M.R.C.S. Eng., is unquestionably due all the credit for abolishing the interment of our dead in metropolitan churchyards, and although pressed to take shares in the various cemeteries which arose in consequence, he has steadily refused. Cremation is not at all recent. Heraclitus, who considered *fire* as the first principle, advocated the funeral pile.

Collegiate Election.—It was a printer's error; Mr. South resigned his seat at the Council of the College of Surgeons about a year ago.

Torture by Water.—In the year 1622, ten Englishmen, traders and factors at Amboyna, one of whom was Abel Price, chirurgeon, one Portuguese, and ten Japanese, were arrested by the Dutch Governor, and after being grievously tortured, during the week between February 15 and 22, were, except one or two, beheaded. The pretext for this outrage was an alleged conspiracy, which a score of English factors and traders were said to have entered into, for the purpose of seizing the Dutch Fort, a strongly built and heavily armed place. The first Englishman tortured was Abel Price, the chirurgeon, who was prisoner in the Castle for having attempted, whilst drunk, to set a Dutchman's house on fire. He confessed the plot under torture, and accused others; and these being tortured in turn, accused each other and themselves. The mode of torture by fire and water was diabolically ingenious. The poor wretch was tied up to a doorway by his wrists and ankles in the form of a St. Andrew's Cross, then, whilst lighted candles were applied to the feet and armpits until the "fat dripped out," "they bound a cloth about his neck and face, so close that little or no water could go by; that done, they poured the water softly upon his head until the cloth was full up to the mouth and nostrils, and somewhat higher, so that he could not draw breath but he must withal suck in the water, which, being still continued to be poured in softly, often, as it were, stifled or choked him, at length took away his breath, and brought him to a swoon or fainting; then they took him quickly down, and made him vomit up the water; being a little recovered, they tied him up again, and poured in the water as before. In this manner they handled him three or four several times with water, until his body was swollen twice or thrice as big as before, his cheeks like great bladders, and his eyes staring and strutting out beyond his forehead."—*Harris's "Complete Collection of Voyages and Travels,"* Lond., 1744, p. 827.

Medicus.—Dr. John Davy says that the origin of chemistry as a science of experiment cannot be dated farther back than the seventh or eighth century of the Christian era, and it seems to have been coeval with the short period in which cultivation and improvement were promoted by the Arabians.

Lithotomist.—The celebrated Cheselden was born at Sowerby, Leicestershire; studied anatomy under Cowper, at whose house he resided; and was buried at Chelsea Hospital, April 19, 1752.

A. M., Southampton, and F.R.C.S. Exam.—Mr. Hilton has always taken the greatest interest in all affairs of the College of Surgeons, whether relating to the library, museum, or official departments. He was elected a member of Council in 1854, Professor of Human Anatomy and Surgery in 1859, member of Court of Examiners in 1865, and Hunterian Orator in 1867, in which year he was elected President. In addition to serving on Dental and Midwifery Boards, he has been an active member of all the unremunerated committees.

J. C., St. Bartholomew's.—As your favourite "nightcap" has not the desired effect, attend to the old French proverb—"Qui couche avec la soif, se leve avec la santé" (He that goes to bed thirsty rises healthy).

A Metropolitan Fellow.—The three gentlemen you mention were requested to preside at the ensuing festival of the Fellows of the College, which takes place after the election, but were obliged to decline.

THE SANITARY CONDITION OF FOLKESTONE.

TO THE EDITOR OF THE MEDICAL TIMES AND GAZETTE.

SIR,—As your letter from a correspondent on "Sanitary Matters in the South of England" in your issue of the 13th inst. may probably suggest to the minds of your readers more than he intends inimical to Folkestone, will you allow me to make one or two comments thereon?

The number of cesspools that escaped the vigilance of our sanitary authorities at the particular time when their compulsory suppression was legal, does not number twelve in the whole town (of about 15,000 inhabitants), whilst our general system of drainage, owing to great natural advantages and a liberal expenditure of public money, is unexceptionable. We have had a total immunity from typhoid fever (except single imported cases) for nine years. Cholera has never visited us epidemically, either in 1854 or subsequently. Phthisis amongst native residents is almost unknown; in fact, I have only heard of one case. Rheumatic fever seldom occurs, obstinate and prolonged cases of it never. Erysipelas is very rare.

We can all appreciate your correspondent's efforts to promote perfection of sanitary arrangements, and we may hope that with restored health he may increase his knowledge of our town. If he has at present any erroneous impressions of the character and extent of our health regulations, their existence may be explained by his own words—"Folkestone is a town I have never visited."

I am, &c.,
Folkestone. HENRY LEWIS, M.D. Brussels, M.R.C.S., etc.

MEDICAL MEN AND THE POLICE.

TO THE EDITOR OF THE MEDICAL TIMES AND GAZETTE.

SIR,—To-day whilst I was sitting in my study, a policeman called to ask me to go and see a man who had fallen down in Kensington-park-road. Being unwell, I was unable to grant his request. This circumstance prompts me to ask you a question to which I have never yet received a satisfactory reply. Why should the public and the Government expect the medical profession to be at the beck and call of the police by night and by day without fee or reward? The public, I fear, are becoming imbued largely with socialistic and communistic ideas; but surely Mr. Cross or Mr. Disraeli, being members of a Conservative Government, could not feel indisposed to attend to a petition from the profession on this subject. They surely would not wish to keep down the rates at the expense of the doctors. If, however, the Government should refuse to remedy this injustice, then I would advise my professional brethren one and all to refuse to attend any summons from the police force until justice was obtained.

53, Blenheim-crescent, W., June 12. I am, &c., J. JONES.

P.S.—The fee for attendance in the daytime might be five shillings, in the night one pound.

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Frank.—Official statistics give the population of Denmark as 1,861,000.

A Reader.—"You need not fear a surfeit; here is but little, and that light of digestion."—*Quarles.*

"*Vanity Fair.*"—We are unable to tell you where the spirited and faithful likenesses of the distinguished originals are to be obtained. A third and still more amusing one has just appeared, representing the original *à la* Thomas Guy in the square in front of the Hospital, only standing on his *opus magnum*, instead of the usual pedestal.

J. M.—Not having signed the by-laws you cannot, although elected a Fellow of the College, record your votes at the ensuing elections into the Council; you are, however, eligible for a seat at the banquet. Write to Mr. T. Carr Jackson, 91, Harley-street, the honorary secretary.

H. R., Veterinary College.—The horror of water has attended maladies totally unconnected with rabid injuries. Dr. James, who paid great attention to the subject, relates the case of a mad dog which drank both milk and water, and swam through a pond. In the hounds of Earl Fitzwilliam the development of the disease varied from six weeks to as many months. Dr. James made a similar observation in Mr. Floyer's pack. A peculiar predisposition renders some persons more subject to the disease than others. John Hunter states that out of twenty persons who were bitten by the same dog, only one received the disease. Read Youat on the subject.

Dr. McM.—The Princess of Wales, mother to George III., died of cancer of the breast, in 1772. The Duchess of Kent, mother of our Queen, it is said died of the same disease.

M.R.C.S., the Charterhouse.—Thomas Sutton, the benevolent founder of your excellent institution, was embalmed by Edmond Phillips, who received the then large sum of £40 4s. 8d. for his pains.

BOOKS AND PAMPHLETS RECEIVED—

Orme's Introduction to the Science of Heat—Swain's Surgical Emergencies—Uber Progressive Muskelatrophie über wahre und falsche Muskelhypertrophie, von Dr. N. Friedreich—Bryden's Reports on the Vital Statistics of the Bengal Presidency—Gant's Guide to the Examinations at the Royal College of Surgeons of England—Brown's Manual of Botany—Report of the Adelaide Hospital, South Australia—What Effect does Syphilis have upon the Duration of Life? by F. R. Sturgis, M.D.—Bird on Hydatids of the Lung—Legg on the Liver in Jaundice—Balfour on the Diagnosis of Disease of the Heart.

PERIODICALS AND NEWSPAPERS RECEIVED—

Lancet—British Medical Journal—Medical Press and Circular—Nature—Pharmaceutical Journal—Allgemeine Wiener Medizinische Zeitung—Centralblatt für Chirurgie—Berliner Klinische Wochenschrift—Gazette Médicale—Gazette Hebdomadaire—La France Médicale—Gazette des Hôpitaux—Bulletin de l'Académie de Médecine—Le Progrès Médical—La Tribune Médicale—Journal de Médecine et de Chirurgie—L'Italie—York Herald—Irish Hospital Gazette—New York Medical Journal—Bulletin Général de Thérapeutique.

COMMUNICATIONS have been received from—

Dr. H. L. Snow, London; Mr. Ingpen, London; Dr. H. J. Jones, London; Mr. T. Merchant, Amesbury; Dr. Carson, Portrush; Mr. G. Brown, London; The Registrar-General, Edinburgh; Mr. R. Davy, London; Dr. L. Shapter, Exeter; The Secretary of the Samaritan Free Hospital; Mr. T. E. Scobell, Ridgeway; Dr. Druitt, Weymouth; Mr. J. Taylor, Buxton; Dr. Lewis, Folkestone; Dr. Gavin Milroy, Richmond; The Sanitary Commissioner, Punjaub; Dr. J. E. Pollock, London; Mr. C. F. Maunder, London; Dr. W. Strange, Worcester; Dr. Edis, London; Mr. J. Chatto, London.

APPOINTMENTS FOR THE WEEK.

June 20. Saturday (this day).

Operations at St. Bartholomew's, 1½ p.m.; King's College, 2 p.m.; Charing-cross, 2 p.m.; Royal Free, 9 a.m. and 2 p.m.; Hospital for Women, 2½ a.m.; Royal London Ophthalmic, 11 a.m.; Royal Westminster Ophthalmic, 1½ p.m.; St. Thomas's, 2½ a.m.

22. Monday.

Operations at the Metropolitan Free, 2 p.m.; St. Mark's Hospital for Diseases of the Rectum, 2 p.m.; St. Peter's Hospital for Stone, 3 p.m.; Royal London Ophthalmic, 11 a.m.; Royal Westminster Ophthalmic, 1½ p.m.

23. Tuesday.

Operations at Guy's, 1½ p.m.; Westminster, 2 p.m.; National Orthopædic, Great Portland-street, 2 p.m.; Royal London Ophthalmic, 11 a.m.; Royal Westminster Ophthalmic, 1½ p.m.; West London, 3 p.m.

Anthropological Institute, 8 p.m. Meeting.

24. Wednesday.

Operations at University College, 2 p.m.; St. Mary's, 1½ p.m.; Middlesex, 1 p.m.; London, 2 p.m.; St. Bartholomew's, 1½ p.m.; Great Northern, 2 p.m.; St. Thomas's, 1½ p.m.; Samaritan, 2½ p.m.; King's College (by Mr. Wood), 2 p.m.; Royal London Ophthalmic, 11 a.m.; Royal Westminster Ophthalmic, 1½ p.m.

25. Thursday.

Operations at St. George's, 1 p.m.; Central London Ophthalmic, 1 p.m.; Royal Orthopædic, 2 p.m.; University College, 2 p.m.; Royal London Ophthalmic, 11 a.m.; Royal Westminster Ophthalmic, 1½ p.m.; Hospital for Diseases of the Throat, 2 p.m.

26. Friday.

Operations at Central London Ophthalmic, 2 p.m.; Royal London Ophthalmic, 11 a.m.; South London Ophthalmic, 2 p.m.; Royal Westminster Ophthalmic, 1½ p.m.; St. George's (ophthalmic operations), 1½ p.m.

Queekett Microscopical Club, 8 p.m. Mr. Saml. Holmes, "On Binocular Microscopes."

VITAL STATISTICS OF LONDON.

Week ending Saturday, June 13.

BIRTHS.

Births of Boys, 1141; Girls, 1122; Total, 2263.
Average of 10 corresponding years 1864-73, 2002·3.

DEATHS.

	Males.	Females.	Total.
Deaths during the week	622	582	1204
Average of the ten years 1864-73	655·2	619·1	1274·3
Average corrected to increased population	...	...	1402
Deaths of people aged 80 and upwards	...	...	32

DEATHS IN SUB-DISTRICTS FROM EPIDEMICS.

	Population, 1871.	Small-pox.	Measles.	Scarlet Fever.	Diphtheria.	Whooping-cough.	Typhus.	Enteric (or Typhoid) Fever.	Simple continued Fever.	Diarrhœa.
West	561359	...	5	2	...	2	...	1	1	5
North	751729	1	8	7	...	3	3	6	2	8
Central ...	334369	...	5	8	1	5	...	1	2	2
East	639111	1	2	13	...	8	1	7	1	8
South	967692	1	12	8	2	13	4	2	2	16
Total	3254260	3	32	38	3	31	8	17	8	39

METEOROLOGY.

From Observations at the Greenwich Observatory.

Mean height of barometer	30·062 in.
Mean temperature	57·1°
Highest point of thermometer	79·9°
Lowest point of thermometer	37·5°
Mean dew-point temperature	45·3°
General direction of wind	N.E.
Whole amount of rain in the week	0·05 in.

BIRTHS and DEATHS Registered and METEOROLOGY during the Week ending Saturday, June 13, 1874, in the following large Towns:—

Boroughs, etc. (Municipal boundaries for all except London.)	Estimated Population to middle of the year 1874.*	Persons to an Acre. (1874.)	Births Registered during the week ending June 13.	Deaths Registered during the week ending June 13.	Temperature of Air (Fahr.) Highest during the Week.	Lowest during the Week.	Weekly Mean of Mean Daily Values.	Temp. of Air (Cent.) Weekly Mean of Mean Daily Values.	Rain Fall. In Inches.	In Centimetres.
London	3400701	45·1	2263	1204	79·9	37·5	57·1	13·94	0·05	0·13
Portsmouth ...	120436	26·8	+69	+43	...	...	...	...	0·00	0·00
Norwich	82257	11·0	44	41	80·5	39·0	55·6	13·11	0·01	0·03
Bristol	192889	43·3	127	79	80·0	43·0	57·9	14·39	0·00	0·00
Wolverhampton ...	70896	20·9	65	30	82·5	40·2	56·6	13·66	0·05	0·13
Birmingham ...	360892	43·0	300	150	79·0	42·2	55·4	13·00	0·03	0·08
Leicester ...	106202	33·2	103	42	81·8	37·0	56·2	13·44	0·01	0·03
Nottingham ...	90894	45·5	65	37	77·9	40·2	55·5	13·05	0·00	0·00
Liverpool	510640	98·0	387	260	69·4	44·2	54·1	12·28	0·04	0·10
Manchester ...	355339	82·8	294	180	...	...	...	...	...	...
Salford	133068	25·7	142	65	72·8	35·1	52·2	11·22	0·02	0·05
Oldham	86281	18·5	66	47	72·0	...	...	...	0·01	0·03
Bradford	163056	22·6	114	85	71·4	42·6	54·8	12·66	0·01	0·03
Leeds	278798	12·9	284	125	73·0	42·0	55·7	13·16	0·00	0·00
Sheffield	261029	13·3	193	113	78·0	41·0	55·2	12·89	0·00	0·00
Hull	130996	36·0	94	54	79·0	37·0	53·4	11·89	0·00	0·00
Sunderland ...	104378	31·6	107	29	79·0	40·0	58·0	14·44	0·00	0·00
Newcastle-on-Tyne	135437	25·2	126	65	70·0	42·0	53·0	11·67	0·00	0·00
Edinburgh	211691	47·8	138	91	69·4	41·3	56·1	13·39	0·15	0·38
Glasgow	508109	100·4	374	293	65·3	38·0	52·3	11·28	0·14	0·36
Dublin	314666	31·3	151	142	73·5	34·6	55·7	13·16	0·04	0·10
Total of 21 Towns in United Kingdm	7618655	36·6	5506	3175	82·5	34·6	55·3	12·94	0·03	0·08

At the Royal Observatory, Greenwich, the mean reading of the barometer last week was 30·06 in. The lowest was 29·93 in. on Tuesday and Thursday evenings, and the highest 30·24 in. on Friday evening.

* The figures for the English and Scottish towns are the numbers enumerated in April, 1871, raised to the middle of 1874 by the addition of three years and a quarter's increase, calculated on the rate which prevailed between 1861 and 1871. The population of Dublin is taken as stationary at the number enumerated in April, 1871.

† The figures for Portsmouth include an average for one sub-district from which the usual return has not come to hand.

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ORIGINAL LECTURES.

SIX LECTURES ON THE

SURGICAL TREATMENT OF ANEURISM IN ITS VARIOUS FORMS.

DELIVERED IN THE THEATRE OF THE ROYAL COLLEGE OF SURGEONS.

By TIMOTHY HOLMES, F.R.C.S.,
Professor of Surgery and Pathology to the College.

Abstract of Lecture II.,

Delivered on Wednesday, June 10.

The subject of this lecture was "Inguinal and Femoral Aneurism." Inguinal aneurism (said the Professor) affects either the trunk of the external iliac artery just above or underneath Poupart's ligament, or one of the two large branches which it gives off. Femoral aneurism affects either the common femoral, the superficial or deep femoral, or one of the secondary branches. Aneurism of one of these small arteries is, however, so rare that none are to be found in any of the London museums.

In one of the lectures of the first course, aneurism of the external iliac artery was spoken of, but not fully. Since many of the aneurisms which affect this vessel spread into the thigh and become ilio-femoral, the subject was purposely left for consideration on the present occasion. These iliac aneurisms are very frequently tubular dilatations of the whole calibre of the vessel, which often affect its walls for a considerable distance. Now, these affections of the external iliac artery have of late years been brought under the same methods of treatment as those of the common femoral—viz., (1) ligature after the method of Hunter or of Anel; (2) compression of the artery on the proximal side of the tumour; and (3) the old operation.

It is necessary, therefore, to consider the two affections together; and this is the more necessary as it is often hard to say whether an aneurismal tumour in the groin is or is not limited to one of these arteries; or whether the mouths of the epigastric and circumflex iliac arteries come off from the sac; in which case the aneurism is neither iliac or femoral, but ilio-femoral. If the aneurism be of the iliac artery, and the epigastric and circumflex iliac branches leave the trunk-vessel below the sac, the operation of ligaturing the external iliac is strictly that of Anel, and not that of Hunter, since no branch intervenes between the ligature and the sac. When, however, the aneurism is situated in the thigh—*i.e.*, when the femoral alone is affected—the collateral branches (epigastric and circumflex iliac)' are between the ligature and the sac, or open out of the aneurismal sac itself; and it is very probably in consequence of the too rapid enlargement of such collaterals that the ligature of the external iliac artery may fail in curing the disease, as is occasionally the case. The lower the aneurism is situated, the more of these collateral vessels there will be; and when the superficial femoral is the artery affected, the profunda itself becomes one of the collateral branches between the ligature and the sac.

The successful treatment of ilio-femoral aneurism may be said to date from the time of Abernethy, who first tied the external iliac artery in the year 1796, in a patient in whom he had previously tied the opposite femoral artery with success for a popliteal aneurism. But as the patient had a femoral aneurism in the other limb which was nearly bursting, Mr. Abernethy tied the common femoral in the groin with two ligatures, dividing the artery between them, as was his custom. Secondary hæmorrhage occurred from the upper end of the vessel on the fifteenth day, and the external iliac was then tied for the first time on the living body. The patient, however, was exhausted by these repeated operations, and sank on the eighth day after the last operation. Mr. Abernethy's next case also proved fatal three weeks after the operation, from its having been delayed till the sac had burst beneath the fascia. Here the operation was the first step in the operative treatment of the disease, but it was postponed in hopes of a spontaneous cure occurring. These two cases showed the feasibility of the operation, and in his two other cases Mr. Abernethy was successful. These successful operations were performed in the years 1806 and 1809. It being proved that the operation was not only justifiable but promising, other surgeons were not slow to follow Mr. Abernethy's example. In fact, Freer tied the artery successfully a few days before Mr. Abernethy's third case, and Mr. Tomlinson, of Birmingham, did the same between Abernethy's third and fourth cases. The operation was at first almost confined to British surgery. Hennen, writing in 1818, relates a case of successful ligation of the external thoracic artery, and says of it—"It adds one more to the instances of this spendid triumph of British surgery, which the French operators even to this day can scarcely credit." Norris's table shows that almost all the early operations on the external iliac were performed by English surgeons and by Americans whose surgical education was English. The number of cases which have since been operated upon is very great. Dr. Norris has collected 118, published between 1796 and 1846, and since that time the operation has been very common and fairly successful.

In Norris's statistics the cases in which the external iliac was tied for hæmorrhage were eighteen, of which only four died, one of these being Abernethy's first case for hæmorrhage following a previous operation. In three cases where the operation was undertaken on account of varicose aneurism, death followed in every case. This leaves ninety-seven cases of the Hunterian operation for arterial aneurism with twenty-six deaths—a little over one in four. In four of these cases there were both femoral and popliteal aneurisms, and in three of them a simultaneous cure of both aneurisms was obtained. This list gives by no means an unfavourable impression of the operation, especially that part of it which shows the result of the operation for hæmorrhage. Abernethy's case could be hardly expected to recover, and another of the four cases died rather in consequence of previous suffering and hæmorrhage than in consequence of the operation. Both these cases ought therefore to be struck off the list in considering the real dangers of the operation *per se*—and we should then have sixteen cases with two deaths, both of them caused by mortification of the limb. The hæmorrhage in one case was the result of sloughing, but in the other from a wound. Thus, then, the whole of the statistics of Norris tend to show that in spite of the size of the artery, its depth from the surface, and the proximity of the peritoneum, the operation is not in itself dangerous.

The experience recorded in our hospital table is quite in consonance with this view. In it there are nineteen cases in which the external iliac has been tied at once, without any previous compression. In most of these cases the aneurism was femoral, but in two at least it was iliac. The number of deaths was six, but in one of these the cause of death was bronchitis, and in another fatty degeneration of the heart. Thus the death-rate of these few cases is about the same as that recorded by Norris.

But the cases which recover are not all of them completely successful. In some the patient recovers only at the cost of the limb. This was so in only one of the successful instances, and in one where death occurred amputation had been performed. A gentleman known to the lecturer had the thigh amputated many years ago after the ligature of the external iliac for aneurism, and remains in perfect health and activity.

In another case the operation, though not fatal, did not cure the disease at once, although a cure ultimately resulted. Pulsation did not cease in the tumour immediately after the ligature had been applied, but for a time increased daily in strength. For nine weeks pulsation persisted, the ligature having come away on the nineteenth day. Five months afterwards there was no aneurism to be detected.

How this failure may (sometimes, at any rate) arise can be seen by referring to a case recorded by Mr. Hewett in the twenty-ninth volume of the *Medico-Chirurgical Transactions*, the preparation from which belongs to St. George's Hospital museum, and was exhibited by Mr. Holmes. By this interesting case one thing is abundantly shown—viz., that the insecurity of the cure was due to the size of the great collateral artery—the profunda—which opened into the common femoral just above the sac. This great stream of blood has been sufficient to distend the common femoral till it equals in volume the common iliac artery; and it would no doubt have sufficed, as in the former case, to reproduce all the symptoms of the disease, and neutralise the treatment altogether, had it not been that the dilated arteries became in some way narrowed again by a deposit of laminated clot on the lining membrane, which reduced them again and obstructed the stream through the aneurism. If this had not been the case, nothing short of the old operation would probably have sufficed for the cure of the disease.

This liability to reproduction of the aneurism by the

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collateral circulation is one of the well-known and admitted drawbacks to Hunter's operation; and it applies with peculiar force, in Mr. Holmes's opinion, to the operation on the external iliac in cases of aneurism of the superficial femoral, on account of the great size of the two arches of anastomosis, which, by means of the epigastric on the one hand and the profunda femoris on the other, pour the blood into both ends of the common femoral. It seems clear that the direct connexion between the collaterals and the sac, which is almost always found to exist in inguinal aneurism, is the cause of the occasional recurrence of the pulsation. Still, it must be allowed that these failures of the Hunterian operation, either partial or complete, are rare. In practice it is often difficult to determine whether the tumour originates above the origin of the profunda or no. If it originates above, and the anastomosing circulation above it is carried on therefore only by the epigastric and circumflex iliac branches, there appears less chance of such recurrence of pulsation than where the profunda also pours its blood by reflux into the artery above the sac.

The lecturer next passed to the consideration of the ligature of the femoral artery for femoral aneurism. In doing so he observed that we may commence the consideration of the treatment of femoral aneurism with the admitted fact that we have in the Hunterian operation on the external iliac artery an efficient, an easy, and a successful method, but one which exposes the patient to very great dangers (roughly estimated by a death-rate of about one-fourth), which is occasionally followed by the loss of the limb from gangrene, even when the patient escapes with his life, and which in exceedingly rare cases may fail to cure the disease.

When the position of the aneurism permits of the ligature of the superficial femoral, the treatment is, of course, less dangerous. Aneurism of the common femoral, if far enough from the groin, or of the superficial femoral, may be dealt with by the ligature of the femoral *just below Poupart's ligament*. Most surgeons have preferred the ligature of the external iliac; some have even gone so far as to say with Mr. Erichsen that the ligature of the femoral in this situation is not justifiable, or that the ligature of the external iliac is in all cases preferable. Yet the theoretical basis for such a conclusion is difficult to see; nor does practical experience, so far as Professor Holmes can discover, support it. The operation is not a favourite one in England, where the ligature of the external iliac has been extensively practised. It has, however, been performed comparatively often in Ireland, and is there looked upon with so much favour that some eminent Irish surgeons even recommend it in popliteal aneurism in place of the usual operation on the superficial femoral in Scarpa's triangle.

We thus have the widest diversity of opinion between those who, like Mr. Erichsen, believe that the operation on the common femoral ought to be banished from practice on account of its great mortality from gangrene and hæmorrhage, and those who believe it preferable even to an operation which is confessedly so successful as the ligature of the superficial femoral. To come to a conclusion on this point we must examine the reasons for and against the two different propositions:—(1) That the ligature of the common femoral is to be preferred to that of the external iliac in femoral aneurism; and (2) That the ligature of the common femoral is to be preferred to that of the superficial femoral in popliteal aneurism.

Now, as to the first proposition, Mr. Erichsen says that out of twelve cases where this operation has been practised, three only were successful, all the others having failed from secondary hæmorrhage, which either proved fatal or required ligature of external iliac. Others speak of gangrene as being very common after the ligature of the femoral above the profunda. But Professor Holmes says that after the best search which he has been able to make, he cannot discover that there is any exact information as to what is the real frequency of either gangrene or secondary hæmorrhage after the ligature of the common femoral. In Porta's great work, published in 1845, sixteen cases in which the common femoral had been ligatured were enumerated, and of these an equal number died and recovered.

The experience of Irish surgeons, as reported by Dr. Rawdon Macnamara, of ligature of the common femoral above the origin of the profunda, has been extraordinarily favourable. Eight cases are quoted, all of which recovered except two, the cause of death in one of which was previous bleedings, the patient dying a few hours only after the operation. The operation was performed for a wound of the profunda, where the wounded vessel could not be found. In the other case (Mr. Coles') it was the superficial femoral in reality which was tied, as the profunda was given off very high up at the bend of the groin. The ligature had been applied immediately below this great branch, and the patient died of hæmorrhage.

Dr. Mott's experience has been recorded to the same effect. He says:—"Some surgeons have doubted the propriety of tying the (femoral) artery between the giving off of the profunda and the origin of the epigastric. We have, however, several times put a ligature here, and in every instance with success." Mr. Oliver Pemberton lately published (Address in Surgery, 1862) a case which in many respects was like Mr. Coles'. Here, on account of aneurism of the superficial femoral artery, Mr. Pemberton tied, as he believed, the common femoral. The patient died a week after the ligature had come away (on the forty-seventh day), from causes wholly removed from the aneurism. On post-mortem examination it turned out that the epigastric, circumflex iliac, and deep femoral branches were all given off at the same level just above the ligature. Mr. Pemberton says that he selected the operation on the common femoral in preference to that on the external iliac, and should do so again.

From all these facts Mr. Holmes cannot but conclude that the operation on the common femoral artery is not in itself by any means so fatal as has been represented, and that no just cause whatever has been shown for banishing it from surgical practice. The more appropriate treatment, however, for femoral aneurism, when that disease extends so high as to preclude the ligation of the superficial femoral, is the ligation of the external iliac under ordinary circumstances, while the ligation of the common femoral should be reserved for cases where the belly was extremely fat, and the ligation of the external iliac artery therefore unusually dangerous. The main objection against the latter operation is that which is illustrated by Mr. Coles' and Mr. Pemberton's cases—viz., the uncertainty of the place of origin of the profunda artery. At the time of the operation it would be well to thoroughly search the wound, in order to ascertain whether the profunda can be felt pulsating near the seat of ligature, in which case it would probably be best to tie it also.

But in answer to the second question, whether it is better to ligature the superficial or the common femoral in popliteal aneurism, there can be no hesitation in replying that the ordinary operation at the apex of Scarpa's triangle is far preferable. The risk of injuring the femoral vein is no doubt greater, but the risks of gangrene and hæmorrhage are less in this operation than in the ligation of the common femoral.

Pressure and flexion in the treatment of inguinal and femoral aneurism were next brought under notice. The earliest instance of successful treatment of an aneurism of the femoral by pressure is that of Albers, which occurred in the year 1818. A very interesting case of reputed cure by flexion is related by Mr. Ebsworth in the *Medical Times*, January 6, 1844. The patient was under Mr. Babington at St. George's Hospital, in the year 1841, for a large femoral aneurism just below Poupart's ligament. Whether this was really a case of cure by flexion, or of natural cure by rest and diet, may be doubted. Although a successful case of flexion for the cure of femoral aneurism is recorded by Buck (*American Journal of the Medical Sciences*, January, 1870), the method is of little value, impedes the employment of compression, and holds out little prospect of cure.

The case recorded by Verdier, in which instrumental compression was employed for four years, though without curing the aneurism, is one of great interest, and was referred to in detail by the lecturer. In Fisher's statistics of the use of digital compression, seventeen cases are given in which the aneurism was femoral; eleven of these were successful, and in one of them the artery on each side was affected,—making therefore twelve aneurisms cured by digital pressure out of eighteen.

The notes given show that in three out of the successful cases the aneurism was in all probability above the bifurcation of the common femoral; in eight certainly below it; and in the remaining case the position of the tumour is not described. Two of these cases are remarkable—one of them as showing the great rapidity with which cure is sometimes obtained, and the other as proving that success is not desperate even in very extensive disease of the arterial system. These cases, of Riberi and Darke, were related at some length.

In three out of these twelve cases instrumental pressure had been previously tried, and abandoned in two on account of its causing ulceration of the skin, and in the third on account of

the pain. In a case under Fröhlich's care, an aneurism, the size of an apple, in the middle of the thigh, was cured by the patient compressing his own artery at intervals, for periods varying from five minutes to half an hour, as often as he was able during five weeks.

The unsuccessful cases in this table are fewer in reality than the figures would at first sight seem to show; two cases are questionable, so that there are only four cases, in all of which the aneurisms were traumatic, and traumatic aneurisms are not very amenable to the compression treatment, in consequence probably of the variable composition, thickness, and resiliency of the tissues forming the sac. Ligature of the external iliac was ultimately performed in all these cases, two of which recovered and two died. If this record of digital pressure for femoral aneurism be borne out by future experience, it is in the highest degree encouraging.

The experience of our hospitals has not, however, been nearly so successful as this collection of published cases shows. There are here eight cases in which pressure in one form or another has been used with success in femoral and ilio-femoral aneurisms. In five of these the pressure was applied either to the aorta or the common iliac by means of the abdominal tourniquet under chloroform, and in a sixth the external iliac was compressed for six hours under chloroform. One case was cured by ten days of interrupted pressure—digital and instrumental mixed—on the femoral artery, and one by instrumental compression of the external iliac artery. On the other hand there are a good many cases (eighteen in the hospital table) in which compression has failed, and in some of which it seemed to produce death.

On the whole, instrumental or digital pressure is often successful in femoral aneurism. The femoral artery as it crosses the pubis lends itself so easily to the digital form of pressure, and this form is so much superior to any kind of instrumental pressure, that Mr. Holmes considered it should always be employed when possible. The external iliac can be with difficulty only commanded by the finger for a sufficient time, while Albers's case and Verdier's prove that instrumental pressure can be made and kept up there for an unlimited time.

Two others of the unsuccessful cases were quite out of the usual line of practice. In four cases the femoral, and in one the external iliac, was tied with success after failure of pressure. In six cases the external iliac, and in one the femoral, was tied, and death followed in all. And in the eight fatal cases after the failure of digital compression, galvano-puncture was used. Besides one of the above cases in which the same practice was resorted to, there are eight other cases in which the old operation was performed in the thigh. In most of these cases the operation was performed, as in those published by Mr. Birkett and Mr. Henry Smith, on account of the subcutaneous rupture, or so-called diffusion of the aneurism. In one case, however, it was necessitated by a wound of the aneurism, which had been opened by mistake for an abscess. Three of these cases died, and in one of the successful cases the femoral vein was accidentally included with the artery by the ligature. Another case seen by the lecturer, and published by Mr. Gay in the *Lancet*, 1868, vol. i., died from visceral disease quite unconnected with the operation, which was in all respects successful.

This record of a very formidable list of cases treated by the old operation must be allowed certainly to show that its success in the hands of the hospital surgeons of the present day is greater than would have been *à priori* expected, and it is the treatment which ought, no doubt, to be followed in cases of ruptured femoral aneurism, although such a complication has not prevented the successful performance of the Hunterian operation, as is shown by Mr. Hovell's case reported in the *Lancet* in 1851, vol. ii. The femoral artery in this case was ligatured for a ruptured aneurism in the lower part of the thigh.

CAMPHOR IN ERYSIPELAS.—M. Revillout states that he has several times had occasion to employ with good effect in erysipelas an application used by M. Delpech at the Necker. It consists in painting the affected surface with a solution of camphor in ether (equal weights); and when this is employed in erysipelas of the face, and the affection has not yet reached the hairy scalp, its progress is usually arrested. It is also very useful in erythema caused by local irritation.—*Gazette des Hôpitaux*, June 20.

ORIGINAL COMMUNICATIONS.

ON A CASE OF FATAL

SYNCOPE DURING THE ADMINISTRATION OF CHLOROFORM.

By J. T. CLOVER, F.R.C.S.

IN the following notes two modes of administering chloroform are alluded to. First, by what is known as "Clover's Chloroform Apparatus," consisting of a bag (in this instance charged with thirty-two minims of chloroform and four of ether to each thousand inches of air), from which bag the patient inhales by means of a tube and valved face-piece. Secondly, by an instrument called the "blowing apparatus"; it consists of a bellows moved by the foot, which forces air through a vessel containing chloroform, and onwards by a tube held near the patient's mouth. A stopcock is placed near the end of the tube to prevent the current being too strong. It is intended for operations where the first apparatus cannot be applied.

On June 13, 1874, a gentleman was about to have some adenoid growths removed from the posterior nares. It was likely to be a tedious operation, and for its effective performance the patient ought to be quiet as well as insensible. The patient was seated on a chair, much reclining backwards. A piece of vulcanite with a string attached to it was put between his teeth, and he commenced inhaling from the bag apparatus. He inhaled well, but swallowed frequently. At the end of five minutes he vomited three or four ounces of yellow matter. After the vomiting ceased he commenced talking, but very quietly took the anæsthetic again for three or four minutes, when Mr. Marshall commenced to examine the nostrils and fauces. This produced retching, and he became unsteady, so that I could not go on effectively with the blowing apparatus, and I laid it aside, and a third time used the bag apparatus until the cornea was completely insensitive and the pupils well contracted. His pulse was regular, but diminished in force at this time—about fifteen minutes after the commencement of the inhaling. I now finally put aside my bag-inhaler, and the prop having been adjusted between the teeth, I prepared to give chloroformed air by the blowing apparatus, but I did not begin to use it till I saw signs of recovery from the previous inhalation. Mr. Marshall was beginning to pass a string from the nostril into the mouth, but desisted for a time on account of the retching, and the patient leaned forward voluntarily as if to be sick. On renewing the application of chloroformed air, it did not seem to supply the vapour fast enough, as he drew in air so freely with it. I therefore placed a cambric handkerchief loosely in front of the face to make it more effective. In less than half a minute after this he seemed about to vomit; his pulse also became small. I removed the handkerchief and the chloroform, and was about to hold the basin under his mouth, but I saw that he was paler than before, and his pupils were beginning to dilate. Not the slightest obstruction appeared in his throat. He breathed slowly but freely. We placed him immediately on the floor, and aided his breathing, which soon became gasping, by artificial respiration after the Sylvester's and Baines's method. The prop was in its place, and seemed to assist the access of fresh air. There was no difficulty in getting air into the lungs; it entered with an audible sound, and without any sudden check. After we had persevered for about a quarter of an hour, there was a slight mucous rhonchus. He seemed to moan three or four times, and I thought I felt a feeble pulse at the wrist, but the pupils never recovered their natural size. Ammonia was held near the lips, cold water sprinkled on the face, and cloths soaked with hot water put on the chest. Artificial respiration was kept up for an hour, when it was evidently useless to continue it any longer.

Remarks.—No opportunity of examining the heart after death was afforded us. There may have been something besides the chloroform to cause death, but I incline to the opinion that the anæsthetic, when the cambric handkerchief was placed over the face, became too strong for a heart enfeebled already. Although I have hitherto found the blowing apparatus safe, and of the greatest use in many of these difficult cases, I will not use it again without so modifying it as to make it certain that the vapour was even more diluted than it was in this instance. Whether as a cause or not of the sad result, the exchange of the bag inhaler for the blowing

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apparatus was quickly followed by the alarming symptoms which ended in death. It will occur to many who have had experience with ether that this would have been a safer agent in a case where so much difficulty was expected, but it should be remembered that there was a special reason for avoiding ether on account of its irritating effect upon the throat. Even the small quantity of four minims in a thousand inches of air seemed to increase the movements of swallowing when he first inhaled. Ether can, indeed, be introduced so gradually by the aid of nitrous oxide as hardly to cause any irritation. I have so used it more than 400 times without any untoward result, and with immensely less discomfort to the patient than by the common method. However, I did not think this case fit for using any instrument or any combination that may be regarded as upon its trial. Perhaps it is fortunate I did not, for it might have been more reasonably supposed to have caused death than the methods employed, whose use has been established by the satisfactory experience with them for many years. In the next case of the kind I shall give ether with gas, then ether with a limited supply of air for at least ten minutes; and if I have any need to give chloroform at all, it shall be even more diluted than it was in this case.

REMARKS ON A CASE OF INTERNAL URETHROTOMY.

By W. F. TEEVAN, B.A., F.R.C.S.,
Surgeon to the West London Hospital; Surgeon to St. Peter's Hospital; and late Lecturer on Anatomy at the Westminster Hospital.

In the *Medical Times and Gazette* for September 27, 1873, I recorded a case in which I had subcutaneously divided two strictures of the urethra which had previously been twice operated on by other surgeons by the so-called method of immediate dilatation, with no other results than to insure a more speedy return of the malady in an aggravated form after each splitting operation. In the case I am about to relate the patient had been subjected to another method of forcible dilatation, with, however, better results than those related in the former instance. Apart, however, from the special interest attaching to the operation, it will be seen that the causation of the disease had apparently been overlooked; hence it was that the patient suffered for years from his distressing malady, incontinence of urine. But when the diagnosis was made, and appropriate treatment adopted, the cure was speedy and permanent.

R. W., aged 33, formerly in the Royal Marines, but now a stoker at the Phœnix Gas Works, was admitted into St. Peter's Hospital under my care on March 9, 1874. The patient caught the only attack of gonorrhœa from which he ever suffered whilst he was serving in China in 1859, and was cured of it in six weeks by medicines and injections of moderate strength. A couple of months later he suffered severely from ague, and shortly afterwards he was attacked with dysentery, which lasted for four months and caused him to be invalided to England. Whilst on the voyage home dribbling of urine came on and never left him; but he stated that the stream of water began to get much smaller soon after he got well of the gonorrhœa. On his arrival in England he went to Haslar Hospital, where he remained from January to April 25, when he was discharged from the service on account of his feeble health. After leaving the navy he gradually got stronger, but was obliged to wear an urinal on account of the dribbling of urine, which debarred him from permanent employment. At the latter end of the year 1862 he entered one of the metropolitan hospitals, and remained there for three weeks without any relief. According to his statement, no examination of the urethra was ever made. Two years later (1864) he became an in-patient at another London hospital for three weeks, with no better result than on the former occasion, no examination of the urethra having been made. On May 7, 1867, he came under my care at St. Peter's Hospital, and finding that he had a very bad stricture I admitted him into the institution on June 11. At that time he was in very feeble health, and much bent. The urine dribbled away night and day, but he was occasionally able to pass a fine stream of water for a second. I examined his urethra with the *bougie à boule*, and found that he had a hard, well-marked stricture situated three inches and a half from the meatus externus. I could not introduce any larger instrument into the bladder than a No. 1 catgut bougie. By treating the patient by gradual dilatation with catgut bougies every other day some progress was made, and by the 28th a visible improvement was evident, for the stream of urine was larger, whilst the dribbling was decidedly less. On July 9 I used Dr. Aspray's screw-dilator, employing a No. 6 tube, which I managed to introduce about half-way through the stricture. As the urethra was excessively tender, the process, which was necessarily tedious, caused much pain. The next day the patient was so much better that he was enabled to dispense with the urinal for the first time, and stated that the stream was much larger. I again used the screw-dilator on July 11, but did not pass it through the entire tract of the stricture on account of the pain it caused. However, much good was achieved, for on the next day all dribbling had ceased and the stream of urine was much larger. On July 16 I passed Nos. 6 and 8 French olivary bougies through the stricture, and two days later I again introduced the screw-dilator, and managed to get it completely through the stricture. On July 19 the patient left the hospital, passing a good stream and able to hold his water for four hours. Before his departure I introduced No. 15 into the bladder. The patient came to the hospital on July 30 and August 7, when I passed Nos. 17 and 18 respectively. From the latter date he attended once a month to have No. 20 introduced till the close of the year 1868, when he discontinued his attendance. On March 9, 1874, he was again admitted into the hospital. He stated that for about three years after ceasing to attend at the hospital he passed a very good stream, but that two years ago his malady began to make itself felt again, and at the present time he was severely troubled with painful and frequent micturition. On examining the contraction per urethram, I found that it was very sensitive and would only admit a fine bougie, and external examination detected a dense fibrous ring encircling the urethra like a hoop of iron. Experience having taught me that such a stricture would be best treated by division, I advised the patient to allow me to operate, to which he readily consented. By March 21 I had, by gradual dilatation, sufficiently enlarged the contracted portion of the canal to admit of the introduction of Civiale's instrument for internal urethrotomy from behind forwards, with which I cut the stricture freely, and immediately passed a large elastic catheter into the bladder to show that the passage was clear. Only a few drops of blood were lost at the operation, and the catheter was immediately withdrawn. Although the patient was in feeble health and nervous, he said he suffered but little pain from the division of the stricture, which was done without the influence of any anæsthetic.

Twenty-four hours after the operation the patient had an attack of rigors, which was repeated twelve hours later.

On March 24 I commenced the after-treatment by the introduction of a No. 18 olivary elastic catheter, which was repeated every other day until April 10, when the patient left the hospital, completely well in all respects, and an adept in the use of the catheter.

May 1.—The patient called on me yesterday to say that he had been at work ever since he left the hospital, and that he could hold his urine for six hours, and passed as good a stream as he ever did in his life.

I selected internal urethrotomy for this patient for the following reasons:—If I had performed the operation of "splitting," or "immediate treatment"—which in reality might be called "the treatment of some cases of stricture by laceration,"—I should only have insured a speedy return of the malady in a more aggravated form, in proof whereof I would refer to a case in the *Medical Times and Gazette* for September 27, 1873, in which I performed subcutaneous urethrotomy with the best results for two strictures which had twice previously been subjected to the splitting operation with no other results than temporary respites followed by aggravated relapses. To tear open a dense stricture in the penile urethra must be looked upon as an unsurgical procedure, for experience and surgery both teach us that the maximum amount of contraction follows a laceration, whilst the minimum attends a clean cut. Therefore a cutting operation is clearly indicated for all penile strictures which are not amenable to gradual dilatation. I should have preferred to have divided the stricture subcutaneously, but the urethra was excessively tender, and I therefore chose internal urethrotomy as being the quicker operation. It may be laid down as a rule that all patients with stricture who have suffered from ague or fever in bad climates are very prone to the occurrence of rigors after any manipulation on the urethra, and this case proved no

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exception to the rule. It might be said by some that if a catheter had been left in the bladder after the operation the occurrence of rigors would have been obviated; but the disadvantages attending the retention of an instrument are very great, and I am not aware of any counterbalancing advantages.

REPORTS OF HOSPITAL PRACTICE
IN
MEDICINE AND SURGERY.

NORTH-EASTERN HOSPITAL FOR CHILDREN.

CASES ILLUSTRATING THE USE OF THE PNEUMATIC ASPIRATOR.

(Under the care of Drs. CAYLEY and SANSOM.)

(*Continued from page 672.*)

Case 8.—Pleurisy—Paracentesis—Evacuation of thirty-two ounces of Serum—Convalescence in seven days.

Edward R., aged 10½ years, was admitted as an out-patient on June 9, 1874, under the care of Dr. Cayley. The patient complained only of feverishness, loss of appetite, and constipation. A saline aperient was ordered, and the mother requested to return with the child in three days.

When brought on the 12th he was suffering from urgent dyspnœa, which began the day after his last attendance at the hospital, and had been getting worse since. The following history was then ascertained:—Had been ill twelve days; previous health very good. The attack began with severe pain in the right side, which lasted only one hour; but he has had it on and off in a less degree since. Has a slight cough, and is wasting very fast. No family history of phthisis.

On examination, complete dulness over the whole of the right side, both in front and behind, was found to exist, except around the nipple, where it was tympanitic. In front, bronchial breathing heard at apex only; behind, breathing very feeble and bronchial, vocal vibration diminished. Heart's apex beats a little to the left of the nipple-line. The measurement of the right side of chest at the base was found to be just half an inch more than that of the left. The patient was at once admitted as an in-patient, paracentesis was performed, and thirty-two ounces of yellow serum drawn off.

14th.—No cough or dyspnœa; eats and sleeps well.

16th.—General condition good. Wound quite healed. Good resonance over the whole of the right side of the chest except quite at base, which remains dull; breath-sounds feebler than on the left side; quite at the base, breathing is scarcely audible; apex-beat in its normal position.

19th.—Percussion over the right side of the chest is now normal; breathing vesicular and everywhere audible; a little friction sound, to be heard only at extreme base. Had no cough or dyspnœa since the operation. Patient says that he feels quite well.

22nd.—Patient continues well, and has gained flesh considerably.

25th.—Discharged, cured.

Case 9.—Empyema—Diagnosis doubtful—Death.

Minnie C., aged 2 years, was admitted as an out-patient, under the care of Dr. Cayley, on May 29, 1874. Has been ill six weeks, with shortness of breath and wasting. Attack began with "pain in the belly." Has had scarcely any cough. Child extremely emaciated; dyspnœa urgent; lies on her left side. There being no bed vacant, the child could not be admitted as an in-patient until June 2.

State on Admission.—Much emaciated; dyspnœa still very urgent; respirations 64 per minute. If placed on her back turns over on the left side. Absolute dulness in front from clavicle downwards, extending from mid-sternal line to border of the left axilla. In axilla and over the back of the left chest resonance diminished, but dulness is not absolute. Breath-sounds feeble all over the left side, at apex distinctly bronchial; on right side loud and harsh. A few sibilant râles heard universally. Apex-beat in its normal position; heart's impulse rather diffused. Pulse 160; temperature normal. No apparent bulging of chest; measurements equal. Coldness of extremities. Ordered sp. ammon. arom. ℥v., sp. chlorof. ℥iij., aquæ 3j., every four hours. Cold wet bandage around chest.

June 3.—Dyspnœa less urgent than yesterday; respirations 60; pulse 140. Dr. Sansom saw the patient to-day; thought there was not sufficient evidence of fluid in the chest to justify paracentesis.

4th.—Further improvement; breathing quieter, 54 per minute; takes nourishment well; pulse 132.

5th.—Physical signs same as when admitted; respirations 60.

6th.—Has had a very restless night; dyspnœa more urgent; respirations 66; pulse 140; died at 5.45 p.m.

Autopsy.—Left pleural cavity full of thick, non-fetid pus (about twenty-four ounces), pleura everywhere much thickened; lung wholly collapsed, except at extreme apex, which was consolidated (from old inflammatory exudation). Right lung healthy, except its lowest lobe, which was collapsed; right pleural cavity contained about six ounces of pus. Heart and other viscera healthy. Stomach much distended.

(*To be continued.*)

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Medical Times and Gazette.

SATURDAY, JUNE 27, 1874.

DEGREES IN PUBLIC HEALTH.

The Edinburgh University Court has finally determined to add a department of Public Health to the list of subjects in which degrees may be obtained at that University. The great demand for officers of health, and the importance which electing bodies attach to such credentials of a university as testify to the possession of special information in a department of science, are assigned as the reasons for the establishment of the new degree. It may safely be assumed that beyond this avowed motive the University authorities are actuated by an intention to promote the interest of the University by increasing the number of her graduates and the extent of her teaching powers. And even this motive, though unacknowledged, is one of which the University has no reason to be ashamed.

Candidates for the new degree must be graduates of medicine of a British university, or of such other university as may be recognised by the Court. Such candidates as have not passed an *annus medicus* at the University of Edinburgh, must previously to examination have attended, as matriculated students, two courses of instruction in special subjects. For the Bachelorship of Science in the department of Public Health, it

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is necessary that the general subject and also practical chemical analysis should be studied under a recognised teacher. As in the case of medical graduation, the University will grant both a bachelor's and a doctor's degree. The former will be given after two written, oral, and practical examinations, separated from each other by an interval of five months. The degree of Doctor will, after the lapse of a year from the time of graduation as a Bachelor, be given to such men as send in a satisfactory thesis on a special subject, and produce evidence that they have been engaged in sanitary work in the interval. The examiners for these degrees will be appointed by the University Court.

The first examination for the degree of Bachelor of Science in the department of Public Health will embrace the subject of *chemistry*, including the analysis of air and water, and the detection, chemically and microscopically, of adulterations of food, drink, and medicines. In *physics* it will demand a knowledge of subjects relating to sewerage, drainage, ventilation, etc., of meteorology and of mensuration; an acquaintance with the leading sanitary Acts of Parliament, and a knowledge of the methods and data relating to vital statistics, will also be required.

For the second examination for the degree of Bachelor, a well-selected synopsis of the knowledge which the candidate must possess is published by the University Court. In *medicine*, endemics, epidemics, and epizootic diseases must be studied in relation to their origin, nature, propagation, and prevention. The geographical distribution of disease, the influence of overcrowding and unhealthy trades, must also be investigated; and with regard to *practical sanitation*, the probationary health officer must be familiar with the problems of water-supply, the sanitary requirements of public and private buildings, the disposal of public waste and the selection and management of cemeteries, the suppression of manufacturing nuisances, the regulation of food-supply, the provisions against zymotic diseases, the uses of quarantine, the nature and employment of disinfectants and deodorisers, and the construction of permanent and temporary hospitals.

We commend the University of Edinburgh for taking action in this matter. There is no doubt that the education of a thoroughly qualified medical officer of health must diverge into subjects which to a pure physician are of less importance than the acquirement of accurate methods of diagnosis and effective means of treatment in individual cases of disease. Doubtless the information possessed by anyone who has acquired knowledge sufficient to pass him through all the grades of the public health degree would be of infinite benefit to the members of any profession—medical, legal, or clerical. Subjects affecting so closely the maintenance of what may be called the common health should be to some extent understood by the learned members of all professions; but as the differentiation of science makes it absolutely necessary, for the purpose of fully utilising knowledge, to establish certain special departments, it is also necessary that sufficient provision should be made for instruction in detail, and some university guarantee authorised, indicative of special knowledge and ability. The department of public health is eminently suited for such a course of instruction and such distinction. Strict care, however, should be taken to avoid the result which threatens to follow upon the multiplication of qualifications—namely, a degrading competition in degrees. Already there is some unfortunate tendency in Scotland to the granting of qualifications, which, though nominally identical with each other, are widely different in the amount of skill and knowledge which the degrees of different qualifying bodies indicate. When the number of university degrees was comparatively limited, it was an easy matter to remember what was and what was not a good qualification; but their present large and increasing number, the greater social diffusibility of their possessors, and the flourishing condition of promoters *in absentid*, are all causes which make it difficult to determine the true value of a qualification. We hope that in the competition for this new degree the University of Edinburgh will meet with that encouragement which is the reward of laudable enterprise, and that students and practitioners will recognise in sanitary science a wide field of research and serviceable activity, and in this new university degree a means of procuring such professional occupation as anticipated modifications of past and extensions of future sanitary legislation are certain to create.

THE SOCIETIES FOR THE PREVENTION OF CRUELTY TO ANIMALS, AND VIVISECTION.

Various foreign and English societies for the prevention of cruelty to animals have this week been holding high festival here in London, and naturally could hardly allow such an admirable subject as that they call "vivisection" to pass unimproved. We are, however, glad to see that moderate counsels have prevailed among them, and that they no longer propose to abolish what they have neither the right nor power to put a stop to, but only to issue licences to those whose position demands it of them that they should make some such experiments. This is a much more reasonable proposition; and just as the law demands that a teacher of anatomy should take out a licence and be responsible for the bodies entrusted to him for teaching purposes, so a teacher of physiology might be required to take out some such licence as regards the teaching of practical physiology. We have never been of those who advocate the wholesale performance of experiments by students, especially on the higher animals, if they are of such a kind as to require any degree of skill in their performance. When the medical public seemed bitten with the idea of the overwhelming importance of what was called practical physiology, many were ready to advocate the performance of all kinds of experiments on living animals by uninstructed students. Against this notion we were the first to protest, as being at once cruel and worse than useless; for an experiment performed by bungling fingers is no experiment at all, but wanton cruelty. On the other hand, we have ever claimed it as a right and as a duty to make such experiments on the lower animals as would tend to the advancement of medical science and the saving of human life. But between the two is a great gulf fixed. The following is an outline of the discussion held in the Society of Arts' Rooms, the Bishop of Gloucester and Bristol presiding:—

Dr. N. Walker (Florence), in opening the debate, declared that his desire was not to stop scientific research, but the abuses which were connected with it. In the first place, he would not allow vivisection to be practised by incompetent students, who had not sufficient knowledge to enable them to interpret physiological phenomena, and could only arrive at the same results as their teachers had before demonstrated. This was nothing but wanton and unrighteous cruelty. Therefore he would oblige each vivisector to obtain legal permission from some competent authority. Another abuse requiring correction related to operations performed merely to demonstrate physiological phenomena already verified and established. Again, the number of animals vivisected was shamefully high. Persons unacquainted with physiological laboratories could form no idea of the lavish way in which animals were made to suffer days and weeks of anguish and acute pain. If the public knew of these sufferings they would insist that the number of animals annually vivisected should be limited, and that no animal rearing its young should be experimented on. Nor should it be allowable to operate on animals more than once. At present a vivisector could experiment again and again, as often as an animal could recover from successive

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operations, and such practices were not uncommon. Lastly, every licensed vivisector should be obliged to send in an annual return, showing the number of vivisections performed, and the scientific results obtained, which would prevent repeated operations with the same object. Nothing in any of these proposals, urged Dr. Walker, could interfere with the progress of science; they would simply stop the abuses which existed.

Dr. Mouat (Calcutta), while defending vivisection as a means of physiological research, thought no one could object to the system of licensing proposed.

Mr. Hutton observed that it was not certain that the present law in England did not punish torturing domestic animals. The question turned upon the construction of the clause, and it certainly ought to be decided. If it were given against them, there would be little difficulty in passing a Bill making torture penal. Experiments on living animals certainly did lead to great results, but were they to have no limits? He quoted recent experiments of Dr. Ferrier on the brain as proof of the great cruelty sometimes practised, and then moved—"That painful experiments on living animals, if not already illegal, should be forbidden by law except under licence and precautions for publicity, and that no experiments on living animals should be permitted except under the same precautions."

Dr. Richardson begged that the Congress would not entirely condemn vivisection, for thereby much research of the greatest value to mankind would be condemned. At the same time, he expressed his entire agreement with Dr. Walker, that operations should not be performed simply to demonstrate what was already known. He thought the resolution would answer no good purpose, for what was meant by torture would have to be defined, and further, the inspector would often be a stumbling-block in the way of valuable experiments. If vivisection were made penal, they would simply drive physiological research into holes and corners where it never ought to be carried on.

Mr. Colam said in the opinion of the Royal Society for the Prevention of Cruelty to Animals the present law would punish instances of flagrant cruelty, and the Society would prosecute if any cases were brought to their notice, but it was almost impossible to obtain evidence. No experimenter dare perform before the public the operations which he performed in private. These vivisections were already done in private, in holes and corners, and if what was done there was open and fair, why this secrecy? No doubt there were occasions in which experiments were necessary, but he maintained that many, practised by men who were some of the worst in the profession, were deviliah in their cruelty. One man boasted that for six weeks he had by artificial means made an animal twist itself round and round like a corkscrew, with pain, and this simply that he might watch its torture. He challenged vivisectors to give him and a competent medical authority an opportunity to be present at their experiments, and he would then prosecute the experimenter if anything cruel took place. If they had nothing to conceal his challenge would be at once accepted.

The resolution was carried unanimously amid loud applause.

Of course Dr. Richardson spoke good sound sense; equally, of course, Mr. Colam, secretary to the Society, spoke nonsense, or something worse than nonsense. If he did not know that he was misrepresenting many eminent and worthy men, it was his duty to have been more careful in his language; but we have no faith in professional philanthropy, still less in professional "philanimalism."

THE WEEK.

TOPICS OF THE DAY.

Mr. Armstrong, the Medical Officer of Health for the Borough of Newcastle-upon-Tyne, in his report for the past year, states that the death-rate during the year was 30·1 per 1000. The rate of mortality from the seven principal zymotic diseases was 6·8 per 1000, and that of children under one year of age 7·8 per 1000. Mr. Armstrong concludes an able report with observing that there are influences powerful in the production of disease and the shortening of life which belong rather to the moral than the physical sanitarian, and whose effect, though undoubted, can be but vaguely estimated. Foremost among them are to be considered the engineers' strike of two years ago, and the prevalence of drunkenness. Some proof of the extent and ill effects of drunkenness in this town is afforded by the Governors of the Newcastle Infirmary, who report that 367 cases of accident to intoxicated persons received treatment in that institution during the twelve months ending March, 1874. He believes the privation to which the wives and children of operatives were exposed during the late strike, and the dissipation consequent on the high wages and short hours of others since that time, have helped considerably to impair the constitutional vigour both of adults and of children, rendering them an easy prey to disease.

It appears from the report of the Nightingale Fund for the year 1873 that the charity is in a very satisfactory and encouraging condition. During the year 1873 fifty-eight probationer-nurses received instruction in the school at St. Thomas's Hospital. At the same time the supply of suitable candidates for admission to the school has not always been sufficient to fill the vacancies, and the Committee in the report direct especial attention to this source of employment for women. The salary of a trained nurse usually commences at £20, with board, including the usual extras and comfortable accommodation; and skilled nurses of experience frequently obtain superior appointments. The Committee, while expressing their satisfaction that the subject of supplying nurses for local objects—such as district or parish nurses for the poor in their own homes—has been to some extent taken up by other nurses' training institutions in connexion with hospitals, do not think it expedient to allow the resources of the Nightingale Fund to be expended in this direction until more extended means have been provided by hospitals as centres for giving the requisite training. They trust, however, to render hereafter some direct assistance to the movement by means of their own training schools.

The President and Fellows of the Royal College of Physicians have issued invitations to a *conversazione* on Wednesday, July 1.

The meeting proposed to be held this month in London, for the advancement of the Edinburgh University Buildings' Extension Fund, has been postponed until November next.

We understand Dr. Julius Pollock has been appointed Lecturer on the Principles and Practice of Medicine, and Dr. Silver has been appointed Lecturer in Clinical Medicine at Charing-cross Hospital. These changes arise out of the resignation of Dr. Headland from illness, as already mentioned in these columns. From the same cause Dr. Green has been appointed full Physician, Dr. Douglas Powell becomes Senior Assistant-Physician, and Dr. Bruce an ordinary Assistant-Physician. We also hear that Dr. Irvine has been recommended for the post of Extra Assistant-Physician with charge of children out-patients, and as the recommendation was unanimous, no appeal to the governing body will be necessary.

There is a vacancy at King's College Hospital for a Physician, owing to the resignation of Dr. Garrod. The chair of Materia Medica and Therapeutics is thus also rendered vacant.

There is a vacancy at Charing-cross Hospital for a Medical Registrar; salary £40 a year.

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We hear that the authorities of Westminster Hospital have it in view to institute a full medical curriculum for female students.

A PLEASANT RIVER.

At the sitting of the Court of Queen's Bench, Ireland, on June 17 last, the Lord Chief Justice (Whiteside) said that before proceeding with the trial of the next case he wished to refer to a matter to which his own attention had been called—namely, the state of the river Liffey. A gentleman holding a situation in the Four Courts, who was not at all a sickly man, had stated to him that on a recent occasion he had to leave his office three times during the day on business, and that the third time he passed by the river on his return he felt deadly sick. He (the Lord Chief Justice) yesterday received from a gentleman in the Record Office a communication containing an ingenious plan by which the Liffey opposite to the courts might be in some way purified, and the gentleman proposed that it should be carried out by subscription, and offered to head the list with £10 from himself. But, although he (the Lord Chief Justice) admired the plan and appreciated the motives of the author of it, he would not be a party to asking the officers of the court and the practitioners of the law to subscribe for the purpose of performing a duty that rested on other authorities. He could say for himself that anything to equal the stench of the cesspool in question he had never felt in the course of his existence. Last year he tried a case of nuisance occurring at the camp at Kildare, and one of the witnesses describing it said it was nothing like what he had experienced while walking down from the railway station to that court. That was perfectly true. The responsibility with respect to the nuisance rested upon the Corporation, and also, to a certain degree, with the Government of the country. No one esteemed more highly than he did the distinguished persons at the head of the Government, but if this nuisance got worse he would adjourn the court. The power of doing that rested with him, and then the suitors might go to the authorities to whom he had referred, and get redress from them if they could. He believed there was no city in the civilised world that contained anything like this nuisance. He had only the power of remonstrating, but if his remonstrances should prove unavailing, he would adjourn the court until some other place was provided in which he could sit. It was a pity that the man who had erected so beautiful a building as that in which they were sitting, should have built it beside a cesspool.

This protest against a disgraceful state of things in the Irish metropolis has been vigorously followed up, both in the House of Commons and by his Grace the Lord Lieutenant in a letter addressed to the Corporation of Dublin, the Sewer Authority responsible for the nuisance in question. His Grace's energetic action seems to have taken the worthy aldermen and councillors by complete surprise. His letter was accompanied by a plan for temporarily abating the nuisance, and conveyed something more than a hint that unless the Corporation took immediate action in the matter, the necessary works would be executed by the Board of Public Works at the expense of the Sanitary Authority in default, as provided in the Sanitary Act of 1866.

The Public Health Committee of the Corporation has now had charge of Dublin for eight years, and it is not going too far to say that in the time they have effected but little permanent improvement in the sanitary state of the city. Most places which have been under the charge of a sanitary staff show a lessened death-rate after the lapse of a few years. But this is not so in Dublin. We have taken the trouble to calculate the yearly death-rate within the municipal boundary for the past ten years, with the following results:—In 1864 (the first year of registration in Ireland, the returns for which are certainly below the mark) the death-rate of the City of Dublin was 20·5 per 1000; in 1865 it was 27·8; in 1866 an epidemic of cholera raised it to 30; in 1867 it was 29·6; in 1868, 26·7; in 1869, 26·3; in 1870, 26·5; in 1871, 27·5; in 1872 an epidemic of small-pox again raised it to 30·8; and in 1873 it fell to 27·7. The average death-rate of the ten years was 27·3; of the last nine years it was 28·1 per 1000. In London the average death-rate for the eight years ending 1873 was 23·9, yet the relative density of population is in favour of a lower death-rate in Dublin.

It is strange that the Public Health Committee should, in the face of such facts, maintain that the sanitary organisation for the city has worked "well and efficiently," and that they should deprecate the appointment of the Dispensary medical officers as district medical officers of health—yet so it is.

SAVORY AND MOORE *v.* WARBURG.

A case was tried, on Saturday last, in the Court of Queen's Bench, before the Lord Chief Justice and a special jury, in which Messrs. Savory and Moore, chemists, of New Bond-street, sought to recover damages for a libel against the proprietor of a patent remedy known as "Warburg's Tincture." The libel was stated to have been addressed to the War Office, in reference to a quantity of fifty bottles of the preparation which Messrs. Savory had been ordered to send out for the use of the troops on the Gold Coast during the late war; and the defendant not having received the order direct, warned the authorities that they had been deceived by a spurious imitation of his nostrum, although it was shown that the quantity really sent had been sold by himself to Messrs. Barclay, of Farringdon-street, only four months previously.

We only refer to this case to deplore the custom of, in a certain sense, compelling medical men to have recourse to secret and unknown remedies for the treatment of disease when such a complete collection of well-known and well-tried medicines is available for the physician's use. The result of this practice, however, appears to be, that on the outbreak of a war such as that which has happily just terminated on the Gold Coast, a well-intentioned but hurtful pressure is brought to bear on the authorities, and, in deference to the strongly urged suggestions of its advocates, a secret remedy (of the composition of which the medical officer who is to employ it knows nothing) is sent out to be tried upon our sick soldiers, though we should fancy few medical men of the present day in civil practice would care to avail themselves of its services. In the present case, moreover, the testimony of the lamented Dr. Livingstone was adverse to the efficacy of this nostrum, though supported by high medical authority, as a remedy for the treatment of African fevers. In one of his books of travel the Doctor states that on the recommendation of a friend he had tried it, and found the result unsatisfactory.

With a comprehensive British Pharmacopœia, periodically revised by the most competent men of the time, we trust that the day of nostrums and secret remedies will soon pass away for good, and that the progressive enlightenment of the people generally will eventually conduce to their utter extinction.

THE AWARD OF THE STIEBEL PRIZE.

The *Academy* states that the prize instituted by the late Dr. S. F. Stiebel, of Frankfort-on-the-Maine, for the best essay on questions connected with development generally, and the treatment of children's diseases specially, was lately awarded for the first time at Frankfort. The successful competitor was Professor Lieberkühn, of Marburg, whose investigations on the development of the eye in the vertebrata have secured him a European reputation; and his essay for the Stiebel Prize is pronounced to be fully equal to his other contributions to science. We learn from the report of the committee appointed to award the prize that the capital from which the money is derived consists of

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the funds raised by the friends and admirers of the late Dr. Stiebel to celebrate, on May 3, 1865, the jubilee of his fifty years' doctorate. This money was left by the Professor at his death, in 1868, for the purpose to which, after the interval prescribed by himself for its accumulation, it is now for the first time so satisfactorily applied.

DERMOID CYST IN THE ANTERIOR MEDIASTINUM.

In the *Centralblatt für Chirurgie*, May 2, 1874, is the account of a case in which Heinrich Kückmann, of Marburg, endeavoured to cure a dermoid cyst in the anterior mediastinum by establishing a fistulous opening externally. The tumour had been noticed for two years, and a mass as large as a goose's egg projected externally into the neck on the left of the middle line, and pressed on the trachea. To confirm the diagnosis a puncture was made in the neck; but though it was kept open it did not prove sufficient to drain the cyst. The cyst at last perforated a bronchus and led to repeated attacks of pneumonia, whilst masses of hair were occasionally found in the sputa. Under these circumstances the sternum was trephined immediately beneath the intraclavicular notch, and by chiselling away the upper end of the manubrium, a hole three centimetres long and two centimetres wide was made in the bone and then into the cyst. As a result of regularly repeated injections of air through the wound made by the trephine, the material in the cyst and that which had escaped from it into the bronchus were removed by the expectoration of copious and offensive sputa, loaded with particles of hair.

The second fistula was kept open by laminaria tents while the patient was in hospital, and after his discharge by inserting a canula.

In spite of several relapses in the patient's general condition, the injections of air were regularly continued, in order to remove the putrid bronchial secretions and favour the expectoration of the masses of hair. The cyst still communicates externally, but it is now no larger than a walnut, and it is confidently expected that in time it will completely disappear.

The author refers to a case of Roser's, in which a dermoid cyst was developed between the rectum and vagina. A fistula was established between the vagina and the cyst, but the patient soon died, in consequence of perforation of the rectum by the bursting of the cyst. He then makes some observations on the development of these cysts, enumerating three analogous and six identical cases, and concludes by recommending that under similar circumstances an incision should be made into the cyst, its walls made to unite with the skin, and thus a permanent fistulous opening be established; or else that the same end should be accomplished by inserting a canula and retaining it.

DISPENSERS' SALARIES.

At the meeting of the Islington Board of Guardians, on the 18th inst., the report of the special committee which had been appointed to consider the advisability of increasing the salaries of the dispensers in the employment of the Board, was taken into consideration. The committee recommended an increase of 5s. per week to each dispenser, making the senior dispenser's weekly salary £2 5s., and the two junior dispensers' £1 15s. per week, with apartments, coals, and gas. The report having been proposed and seconded for adoption, Mr. Stonelake, one of the guardians, said he was in favour of giving a larger increase, but he had deferred to the opinion of the majority of the committee. Mr. Warr and Mr. Fairbank thought the amount ample, indeed it was more than was paid by other boards of guardians. Mr. Barrett said that he did not consider £1 15s. per week ample salary for persons who had been educated as gentlemen. He had paid a labourer £1 13s. 9d. this week, and he did not work longer hours than the dispensers. Mr. Horsley moved an amendment to the effect that the salary of each of the dispensers should be increased 10s. per week. No one could be found to second this proposition, so the report of the committee was adopted.

THE NEW PRINCIPAL MEDICAL OFFICER, H.M.'S BRITISH TROOPS, INDIA.

We understand that Surgeon-General Samuel Currie, M.D., C.B., is likely to succeed the late lamented Dr. G. S. Beatson as Principal Medical Officer of Her Majesty's British Troops in India. Dr. Currie is at present filling the post of Principal Medical Officer in the Madras Presidency; and as there is a rule that no medical officer can be appointed to an administrative post in India unless he has previously done duty in the executive ranks in that country, it is probable that Surgeon-General Gordon, lately appointed Principal Medical Officer to the Aldershot Camp, will shortly be ordered out to fill the vacancy caused by the removal of Dr. Currie from the Madras to the Bengal Presidency.

BANQUET AT THE ROYAL COLLEGE OF PHYSICIANS.

The President and Fellows of the Royal College of Physicians held high festival in their hall on the evening of the 24th. It must be some eight or nine years at least, we think, since the Fellows dined together at the College, but, reviving a good custom, it was determined that this year the President and Fellows should again give a banquet, and accordingly, on Midsummer evening, about eighty of them, with many distinguished guests, met in their fine library and enjoyed the feast of reason and the flow of soul, and a most excellent dinner. We cannot afford space to name the guests who graced the occasion, but they included men most eminent in Divinity, Law, and Science.

ADULTERATION OF SNUFF.

A case was heard by the Liverpool police magistrates last week on the adulteration of snuff. Application had been made on behalf of a tobacconist in business at Stockport for "drawback" upon a cask of snuff entered for export to Rotterdam. To ascertain the amount of "drawback" to be paid, the snuff was sampled from the top, the bottom, and the centre of the cask. The result showed that the snuff was adulterated to the extent of two-thirds of the whole quantity.

ENCOURAGING.

Inasmuch as the recently established "London Temperance" Hospital is excluded from participating in the Hospital Sunday Fund by the rule limiting the institutions to hospitals and dispensaries which have been established three years, a special collection for the Temperance Hospital was made on Hospital Sunday at the Great Cambridge Hall, Bishopsgate-street, the proceeds of which amounted to fifteen shillings.

PARLIAMENTARY. — THE PUBLIC HEALTH (SCOTLAND) BILL — FACTORIES (HEALTH OF WOMEN) BILL—APOTHECARIES' ACT AMENDMENT BILL.

In the House of Lords, on Tuesday, June 23,

The Public Health Bill for Scotland was read a third time and passed.

In the House of Commons, the Factories Bill, specially legislating for the health of women and children, was considered in committee, the main provisions of which were maintained, a few amendments were carried, and the preamble was agreed to. Mr. Cross, replying to Mr. Holmes, said that next year he hoped to extend the provisions of the Factory Act to a large number of other factories not mentioned in the Bill. Certain Irish members endeavoured to obtain exemption for Ireland from the obligations proposed in the measure before the House, but the member for Belfast and others strongly

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opposed this attempt to make exceptional legislation for the two countries. Mr. Fawcett renewed his objections to the proposed interference with, and restriction of, the hours of labour for adult women, especially when child-bearing. His amendment to exclude women from the operation of the Bill was negatived by a majority. We are sorry to find that a clause proposed by Mr. Fielden, and supported by Dr. Lush and Sir J. Lubbock, with the object of imposing penalties on employers allowing women to return to work within four weeks of their confinement, was lost. Such a necessary provision for the protection of women and the health of their offspring seems very desirable.

With very little opposition the Bill for amending the Apothecaries' Act has passed through the House of Commons and been sent to the House of Lords. One clause of the Bill empowers the Apothecaries' Company to strike off from their list of licentiates the name of any person convicted of crime, or who shall, after due inquiry, be judged by the General Medical Council to have been guilty of infamous conduct in any professional respect. Another clause declares that nothing in this Bill is to deprive the Apothecaries' Company of such right as they now have, or relieve them from any existing obligation, to admit women to the examinations for certificates to act as apothecaries, or to enter on the list of licentiates women who have qualified to be registered.

In the House of Commons, on Thursday, June 25,

The Health of Women in Factories Bill was to be considered as amended.

Committees were to sit upon the Registration of Births and Deaths Bill and the Sanitary Laws Amendment Bill.

The Apothecaries' Licensing Bill was to be read a second time.

THE CONSTANT WATER-SUPPLY IN LONDON.

From the following report by Major Bolton to the Local Government Board, it will be seen what progress the scheme for a constant water-supply is making in London and the metropolitan districts. Of course, in many respects this change in the mode of supplying water is greatly to be desired, but already matters of difficulty have sprung up. There cannot be a doubt but that a supply of water taken direct from the mains must be of immense value to many poor quarters—that is to say, if due precautions are taken to render the supply available for all. The wretched condition of the cisterns in many poor parts of London, and the risk of contaminated water being supplied from them, rendered it highly desirable that they should be got rid of; but this is not to be done without expense. The enormous size of London, the great differences in elevation of houses and districts supplied by the same water company, cause great variations in pressure at different spots; hence it has been found necessary to completely renew the pipes and taps in some cases; and even the best of taps after a time admit of leakage. It so happens that we are attached to an institution which draws its water-supply partly direct from the mains, and partly through the medium of cisterns; and were it not for the existence of the latter, matters might sometimes be brought to an awkward pass, for when anything goes wrong with the main-supply in the district, as under high pressure is not unfrequently the case, the whole district has to be deprived of water until this defect is made good. As, however, a constant and direct water-supply is certain to diminish the spread of typhoid, cholera, and probably scarlet fever, its introduction is a thing much to be desired, even at the cost of a little extra expense.

"The Kent Company have completed the order of the Metropolitan Board of Works, with respect to fixing hydrants to the mains in the portion of the Company's district at Deptford under constant supply, and have applied for further instructions to make them all available in case of fire. This Company are about to extend the constant supply in their district, and have issued a notice to the Metropolitan Board of Works, that in pursuance of the provisions of the Metropolis Water Act, 1871, they propose to give a constant supply of water to such part or parts of the Company's water limits as are comprised within a district, in the parish of St. Nicholas, Plumstead, which includes about 2700 houses, and the Company are now giving constant supply to about 1000 of the houses which have been prepared to receive it. The New River Company have the power of affording effective constant service in their district. They have also erected a new high service covered reservoir to contain 1,000,000 gallons at Southgate, in anticipation of the requirements of the water supply to Edmonton parish. The Company have in a number of cases afforded constant supply by means of standpipes, and have agreed with a committee of the Corporation of the City of London to furnish constant supply at once to a large number of the houses of the poor situated in courts within the City bounds; negotiations are also pending for the erection of a number of fire hydrants in the City. The East London Company are extending the constant system of supply to their districts, and have given formal notice to the Metropolitan Board of Works, and the Corporation of the City of London, that they propose within the next six months to give a constant supply of water throughout an extensive and densely populated area in East London, containing upwards of 3000 houses. The district is divided into three sections—the first contains 1041 houses, the second 1386, and the third 530. The first section was made constant on May 1, the second will be made constant on June 1, and the third on July 1, in accordance with notice duly given. This Company retain their previously announced intention of bringing their whole district, section by section, under constant supply. The Southwark and Vauxhall Company are completing covered service reservoirs at Nunhead, to contain 18,000,000 gallons, and are erecting additional engine power for high-pressure constant supply. Additional boilers and works are also being constructed at Hampton. The West Middlesex Company are giving constant supply to a number of houses on the application of the owners, who have provided fittings according to the Board of Trade Regulations of August 10, 1872, and are fully prepared to extend the constant supply when called upon. This Company are constructing extensive works and additional engine power of 120-horse power at Hampton, to ensure effective constant supply. The Grand Junction Company have completed a high service reservoir near Kilburn, to contain 6,000,000 gallons for constant supply, and are now completing the line of main pipes, to connect this reservoir with works at Campden-hill; they are likewise erecting additional boilers and works at Hampton, for which place a new additional seventy-inch engine of 125-horse power is being constructed. The Lambeth Company are carrying out extensions and improvements in their works. At Molesey the construction of three reservoirs is being proceeded with, to contain (altogether) 120,000,000 gallons of water, with pumping engines to fill them to a level of twelve feet above the river. When full these reservoirs will contain ten to twelve days' winter supply to the district, and during the months when floods prevail (by selecting the times of pumping when the river water is in the best condition) a good deal of flood water will be allowed to pass. Several days' subsidence will thus be provided for, and consequently an improvement in the quality of the water is expected. The Molesey conduit has been in work throughout the month, and no water has been taken from the Thames at Ditton. One of the new reservoirs, to contain 15,000,000 gallons, and the two fifty-horse power engines will be taken into use during the month of June. The new filters are all in working order, and an improvement in the water may be looked for when the subsiding reservoir above mentioned is in regular operation. This Company are also giving constant supply by means of standpipes in a number of courts and alleys, and arrangements are being carried out to supply upwards of 5000 houses of this class. The alterations in fittings under the Board of Trade rules and regulations are being gradually effected as occasion offers, and are carried out in all new buildings. The Chelsea Company have taken into use the new filter beds at Ditton, and a considerable improvement in the filtration of the water of this company is now apparent. The company are laying down a new thirty-inch pumping main between Kingston and Putney for constant supply, which will be completed shortly; and have covered in the reservoir at Putney-heath, capable of containing 1,000,000 gallons of filtered water to improve the supply of the high service. The Act of 1871 provides power to compel the Companies to give constant supply as and when the public autho-

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rities may see fit to move. It is anticipated that greater safety from fires would result from the constant supply, since it would enable the use of hydrants instead of fire-plugs, and thus more rapidly and effectively extinguish fires. Hydrants might now and for some time past have been substituted for fire-plugs upon about one-third of the entire mains of the metropolis, which are constantly charged, but they have not yet been supplied. The numbers of miles of streets containing mains constantly charged, and upon which hydrants could at once be fixed, in each district of the metropolis, appear to be as follows:—Kent, 80 miles; New River, 168; East London, 70; Southwark and Vauxhall, 100; West Middlesex, 65; Grand Junction, 41½; Lambeth, 90; Chelsea, 50; making a total of 664½ miles, while the total number of hydrants erected thereon is at present only 2436."

FROM ABROAD.

Malignant Scarlet Fever.

Dr. E. T. Williams recently read at one of the Massachusetts medical societies a paper upon this subject, which is reported in the *Boston Medical and Surgical Journal* for April 23. He thus states the doctrine of "malignancy":—

"It is designed to embrace here all cases of scarlet fever attended at any period of their course by malignant symptoms. The group of phenomena thus designated are familiar to every physician, and are equally common to many other forms of febrile disease, both specific and non-specific. Their essential feature seems to be a profound depression of the nervous system, marked by coma or low delirium, great weakness of the heart and respiration, and general stagnation of the blood. Some ascribe their production to the direct action of a specific poison; but the most scientific view, as it seems to me, is the following:—The poison or irritative cause excites fever—that is to say, an increase of combustion or retrograde metamorphosis of tissue; the formation of organic waste, exceeding the rate of elimination through the natural channels, causes an accumulation of waste products in the blood, thereby poisoning it and producing a set of phenomena analogous to those caused by bile, urea, carbonic acid, the septic poisons, and various narcotic drugs."

Assuming this theory to be the correct one, the indications for treatment are—1. To diminish the formation of waste products; 2, to promote their elimination; and, 3, to counteract their effects.

1. In order to diminish the formation of waste products we must diminish the fever, the increased rate of combustion to which they are due depending upon the intensity of this. The means for accomplishing this are numerous—viz., diet, rest, water, ice, nauseating doses of ipecacuanha and antimony, cathartics, cooling salts, veratrum, aconite, and bleeding; and the proper use of these remedies both diminishes and prevents the formation of "malignant" symptoms. To effect this they should be employed early, and only during the acute stage of the fever, as indicated by high temperature and a strong rapid pulse. The moment symptoms of "malignancy" become developed they should be discontinued. Of these means the author prefers nauseants, cathartics, and cooling salts, on account of their convenience of administration, safety, and effects on the secretions—their over-action being carefully guarded against. Of late, it has become the fashion to decry antiphlogistic treatment, and this on account of its former abuse and its qualified adaptability to the inhabitants of great cities; but there can be little doubt of its efficacy and of its eventual resumption of its legitimate therapeutical rank—employed, however, very sparingly in delicate and enfeebled persons.

"In scarlet fever, at all events, I for one have thoroughly convinced myself of its efficacy in delaying the access and modifying the severity of malignant phenomena, as well as in preventing their occurrence. My entire experience with diseases of a malignant tendency, small-pox, typhus and typhoid fever, cerebro-spinal meningitis, etc., is in full harmony with these convictions, and has led me to place much confidence in them. I must believe, therefore, that a judicious antiphlogistic treatment in the early stage is the grand preventive and panacea (using the word in its rational sense, for many patients do and must die under this and any other form of treatment) for malignant scarlet fever, the only exception being those very rare cases in which the malignancy is absolutely simultaneous with the outbreak of the disease."

2. The agents of elimination of waste products being the natural emunctories, the increased action of these should be promoted by the use of diuretics, diaphoretics, cathartics, and emetics, most of these also aiding in the depression of the circulation. The author has found emetics especially useful when malignant symptoms are just beginning to show themselves. A full dose of ipecacuanha, with jalap or other prompt cathartic, seconded by the free administration of hot drinks, often produces an admirable effect. The portal system is disgorged, the skin and kidneys are excited into action, and the nervous system stimulated into a new life—a total disappearance of the malignant symptoms and the establishment of a favourable convalescence frequently resulting. The increased activity of the eliminative action of the lungs is partially provided for by nature in an increased activity of respiration; and it is the physician's duty to see that they are abundantly supplied with fresh air by effectual ventilation. The throat and mouth also must be kept thoroughly cleansed by gargling and swabbing with chloride of soda, permanganates, salt, and vinegar, or some other antiseptic and stimulant wash. This is an indispensable part of treatment, even with the youngest children.

3. The most dangerous of the effects of the accumulated waste is the failure of the action of the heart. As long as this is kept beating, elimination may go on to completion, while its stoppage is death. So, too, when the respiration flags, carbonic acid accumulates in the blood, inducing coma and weakness, and at last asphyxia. Hence stimulants are required in sufficient doses to produce a decided influence on the pulse and breathing, the rate and mode of action of the heart and respiration forming the only true index of their successful operation.

"The general looseness of writers on these points is, I believe, the cause of the wide discrepancies of opinion as to the indications and benefits of stimulants in disease. The best are animal food, alcohol, carbonate of ammonia, camphor, opium in stimulating doses, quinine, and nux vomica. Heat, if deficient, must be supplied artificially. I once saw a person profoundly comatose for more than a week, pulseless at the wrist, with extremities cold and livid to their junction with the body, and jaw dropped as in death, restored to life and consciousness in half an hour by the application of mustard along the spine, after every internal remedy had been tried in vain. Such cases impress us with the supremacy of art over nature. Art saves when nature alone succumbs. It is the prerogative of intelligence to govern and direct natural processes, and to counteract them when they tend prematurely towards death."

The Employment of Warm Water in Surgery.

In continuation of a former paper on the subject, Professor Hamilton, of New York, reports in the *Medical Record* of May 15 several additional cases in proof of the great utility of warm-water submersion in the treatment of wounded or gangrenous surfaces. First introduced by the German surgeons of the St. Francis Hospital, it has commanded attention by the success which it has since attained.

For the arm and hand, a zinc bath is employed, twenty-three inches in length, eight in breadth, and eight in depth. This has a cock inserted at its lower part for drawing off the water, and around its upper and outer margin are small wire-pins to facilitate the suspension of the limb, which should not itself be allowed to rest on the edge of the bath. There is a movable cover, leaving an opening for the arm. For the lower extremity the bath is of a triangular form, with its apex placed below. The water has not been kept at an absolutely uniform temperature, much being left to the feeling of the patient. About 95° is the temperature usually adopted, and renewal thrice daily is generally sufficient. When secondary hæmorrhage is feared, the limb is dressed for a few hours with either warm or cold fomentations, and left at rest on the bed for some hours, neither sutures, strapping, nor bandages being applied. The bath or fomentations are then systematically employed. For fomentation, the limb is enveloped in several folds of lint or soft old muslin saturated with warm water, the whole being surrounded by oiled silk or vulcanised caoutchouc. This is changed about every four or six hours.

As the general conclusion of his trial of the plan, Professor Hamilton states that by no other treatment has he ever obtained equally favourable results. It limits the area of acute inflammation remarkably, erysipelas or gangrene being arrested

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their progress, the temperature in this last being raised to from 100° to 110°. Septicæmia and pyæmia have been met with in no case in which submersion has been practised from the first day of the accident, etc., while purulent infiltrations and consecutive abscesses have been very infrequent and limited. Traumatic fever has rarely been present, and in no case intense. On the second or third day after the submersion of recent lacerated or incised wounds the adjacent parts are found swollen but not much reddened, the integument generally assuming a white and sodden appearance, with only slight tenderness. On the fifth, sixth, and seventh day, the swelling is greater than usually accompanies other treatment, but there is no increased tenderness, while it pits on pressure, showing its œdematous character. At this time the granulations are generally covered with lymph or some exudation of a whitish colour, which might easily be mistaken for a diphtheritic deposit. At the end of fourteen days or thereabouts (the period at which in most cases fomentations are substituted for submersion), the limb is still œdematous, and the granulations are abundant, sometimes presenting a fresh, red appearance, and at others being covered with the white exudation.

After fomentations have been substituted, the œdema gradually lessens, although its final disappearance may be delayed until after cicatrisation, the cicatrix sometimes remaining for months depressed below the level of the sound parts. Granulation and cicatrisation, however, progress as rapidly, or even more so, as under any other mode of treatment. Professor Hamilton has had few opportunities of testing the power of hot water in arresting the march of erysipelas, as this affection is generally prevented. Its power in arresting the progress of traumatic gangrene is very remarkable. It is in cases of laceration or contusion of the hand or foot, when the integument and flesh are extensively torn, that the superiority of submersion is especially seen—that is, if the limb be submerged without closing the wound by sutures or bandages. The œdema which ensues, indeed, renders the employment of sutures quite unsuitable. For mere contusions, without laceration, the results of the treatment have proved highly satisfactory. In incised wounds and amputation wounds, when union by first intention is desired, fomentations are substituted for immersion, as they are also in lacerated wounds so placed as not to be conveniently submitted to submersion, in old ulcers, in many cancerous and syphilitic sores, and in some simple contusions and sprains. "In short (to repeat what has been already intimated), with warm water, either in the form of bath or fomentation, we treat nearly all surgical accidents; carbolic acid, chlorides of soda or lime, and other antiseptics being reserved for very rare and exceptional cases. Unguents and poultices are almost unknown at the Hospital of St. Francis."

REVIEWS.

A Manual of Psychological Medicine, containing the Lunacy Laws, the Nosology, Etiology, Statistics, Description, Diagnosis, Pathology, and Treatment of Insanity. With an appendix of cases. By John Charles Bucknill, M.D. Lond., F.R.S., F.R.C.P., Lord Chancellor's Visitor of Lunatics; and Daniel Hack Tuke, M.D., M.R.C.P., formerly lecturer on Psychological Medicine at the York School of Medicine, and Visiting Medical Officer to the York Retreat. Third edition, revised, illustrated, and much enlarged. London: J. and A. Churchill. Pp. 824.

It gives us sincere pleasure to welcome a new edition of what has been these many years the standard treatise on the subject with which it deals. Introduced to meet a keenly felt want, at a period when psychological medicine was beginning to attract the attention it deserves, both as a branch of study, and of practical inquiry, there was at the time of its first appearance no work for the student's guidance, and but scanty attempts to teach him anything at all with regard to mental diseases. With the exception of the Morningside Asylum, under the direction of Dr. Skae, there was no good school for asylum superintendents—in short, the whole subject was left to take care of itself. Indeed, it seems to us that the great development of psychological medicine since that period has been in no small degree due to the influence exerted by Drs. Bucknill and Tuke's "Manual." It furnished a standpoint for those who were really desirous of devoting themselves to such studies, and gave them the means of pursuing such studies by themselves. Moreover, the indirect influence exercised by this work was of equal, if not greater value than its direct teaching. The authors laid down the broad proposition that mental disease depended on morbid cerebral conditions, and thus most effectually removed the subject of their labours from the *à priori* philosopher, and handed it over to those who make observation and experiment their engines of philosophical research. To do this was a great thing, for the logical outcome of it has been to promote the welfare of the most unfortunate members of our community, who no longer are looked upon as being possessed of devils to be coerced by bodily punishment, but as patients in the true sense of the word—people who are the subjects of real diseases, which have to be dealt with in the same way as other physical ailments.

With the growth of our knowledge of psychological medicine, Drs. Bucknell and Tuke's work has also grown, and now assumes the proportions of a goodly volume, comprehending many things in its scope. Dr. Hack Tuke takes the responsibility for those chapters relating to lunacy laws, classification of insanity, its etiology, statistics, and a description of the various forms of the malady. Dr. Bucknill, on the other hand, is responsible for the part relating to diagnosis, pathology, and treatment, with the appendix of cases. It is, however, only right to say that that portion of the pathological chapers relating to the minute morbid anatomy of the brain has been communicated by Dr. Batty Tuke, formerly of the Fife and Kinross Asylum, now of Edinburgh, whose work we have before now had occasion to mention with approbation. We should not omit to state that the work is illustrated by some valuable engravings and coloured lithographs, intended to render the meaning of the text plainer and more easily understood. We need hardly say that the work has been well and carefully brought down to the present time, for which the comparative leisure of the authors—a leisure well deserved in every possible way—has given ample opportunity. We only trust that the present edition will be as popular and as successful as those which preceded it.

GENERAL CORRESPONDENCE.

THE RELATION OF GENERAL PRACTITIONERS TO THE APOTHECARIES' COMPANY.

Letter from Mr. John Fairmann.

[To the Editor of the Medical Times and Gazette.]

Sir,—I must demur to the statement of both fact and opinion in your leading article of the 6th inst. on the above subject. It may be quite true that Mr. Macnamara's judgment has guided the decision of certain other county court judges in similar cases, but it is no less true that decisions have been given in other courts counter to that judgment. In the case of O'Flanagan, a licentiate of the Glasgow Faculty, and of the Royal College of Physicians, Edinburgh, against a person for medical attendance and medicines, the decision was given in favour of the plaintiff. The case was tried before the Judge of the Durham County Court, in May last year. I have no wish to keep back other facts connected with the case—that Judge Maynell's deputy had previously ruled against the plaintiff, granting him a case of appeal, however (which was not prosecuted), and that the Judge himself had deferred his decision till the succeeding court day. The fact remains that the plaintiff got a decision in his favour on the very points now in question, and contained in the 31st clause of the Medical Act of 1858. But more than this. In 1873, the Council of the Royal College of Physicians, Edinburgh, drew out a case for counsel's opinions, and, as it is a matter of importance, I ask you to allow me to give both case and opinion *in extenso* so far as needed at present. The counsel were Sir George Jessel (then Solicitor-General, and present Master of the Rolls) and Mr. J. H. Lloyd.

"Can a medical practitioner in England, holding the licence of the Royal College of Physicians of Edinburgh, as such licentiate solely, and as such registered under the Medical Act, and without being possessed of any licence of the Society of Apothecaries of London, sue in any court of law for the cost of medicines supplied by him while in attendance on a medical case, or would he be liable to a conviction under the Apothecaries' Act for having so supplied such medicines?"

"*Opinion.*—We are clearly of opinion that a medical prac-

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titioner duly licensed by the Royal College of Physicians of Edinburgh, and registered as such licentiate under the Medical Act, may dispense medicines in England, may sue in any court for medicines so supplied by him, and would not be liable to a conviction under the Apothecaries' Act for having supplied them. The Medical Act superadds another qualification upon that required by the Apothecaries' Act—viz., that the practitioner dispensing medicines as part of his professional practice shall be (among others) a Fellow or Licentiate of the Royal College of Physicians of Edinburgh, and registered as such. The Apothecaries' Act is not repealed. It still has its application to persons not having the new qualification conferred by the Medical Act, but its provisions are superseded where the new qualification attaches.—(Signed) G. Jessel, J. H. Lloyd."

Now, it is quite true that opinion of counsel, however high, is not the judgment of a court, does not finally determine the law any more than the decisions of inferior courts do; but it is equally true that the opinion of eminent counsel does carry considerable weight in the absence of positive judicial decision to the contrary, or where such decision, as I have shown exists in the present case, has been on both sides. It will be seen that the above opinion of counsel referred particularly to licentiates of the Royal College of Physicians of Edinburgh, but as against the supposed claims of the Society of Apothecaries in the case of non-members, it may, I believe, be held as embracing all such as hold a diploma or degree in medicine (there being no by-law in their case to the contrary) and who dispense their own medicines.

I am, &c.,

Hanley, June 17. John Fairmann, L.R.C.P. Edin.

P.S.—Of course, under all the circumstances it would be well if either an authoritative decision were taken on the point, or, as you suggest, the respective licensing bodies were at once to take the necessary steps to have the point or points cleared up by a more explicit statement in the Act.

TREATMENT OF LEPROSY BY GURJUN BALSAM.

Letter from Dr. Dyce Duckworth.

[To the Editor of the Medical Times and Gazette.]

Sir,—It may be interesting to some of your readers to know that there is a case of true leprosy now under my care in Mark ward at St. Bartholomew's Hospital, which is being treated, both externally and internally, with the Gurjun balsam. The case has been in several London hospitals, and also in the Glasgow Infirmary. The man has certainly somewhat improved since his admission. Perhaps you will kindly mention this matter in your next impression. I am, &c.,

11, Grafton-street, W., June 22. Dyce Duckworth.

REPORTS OF SOCIETIES.

THE PATHOLOGICAL SOCIETY.

Tuesday, May 19.

Dr. Charles J. Hare, M.D., in the Chair.

(*Concluded from page 657.*)

Dr. Douglas Powell exhibited specimens from a case of Fatal Hæmoptysis in an Infant. An infant of seven months was brought to the Brompton Hospital suffering from a peculiarly spasmodic cough and expectoration, and with a history of pulmonary symptoms for three months. It died suddenly a few days after being seen, bringing up blood in large quantities. The right lung was extensively diseased. At the summit of the left lower lobe were two cavities as large as a filbert, and in one of these a vessel was exposed, somewhat thickened and eroded, and at one point ruptured. There was acute miliary tuberculosis throughout the lungs. The interest of the case lay chiefly in the early age at which fatal hæmoptysis occurred—hæmoptysis at all was very rare at such an age. Acute miliary tuberculosis was also rare in so young a child. The family history was, however, very bad: the grandfather had died of consumption, the father was suffering from it, and five other children had died in infancy with chest symptoms.

In reply to a remark by Dr. Squire, Dr. Powell said that of course hæmoptysis was common in hooping-cough in children. He had also seen the symptom in pneumonia with consolidation.

The President mentioned a case of hæmoptysis in a child of four years who died six years after of phthisis with cavities.

Dr. Theodore Williams asked if there had been a history of cough from birth, to which Dr. Powell replied in the negative—from the third month.

Dr. Theodore Williams exhibited a specimen of Double Aneurism of the Thoracic Aorta. The disease was in the descending aorta. The first aneurism was ruptured, and had caused death. The sixth and seventh ribs were eroded. The second projected into the right pleural cavity, and was also eroding. The heart was large, the left ventricle greatly hypertrophied, and the valves diseased. The aorta was much diseased. The upper sac opened into the vessel two inches below the left subclavian by a button-hole aperture; the lower two inches further down by a hole as large as a florin; and the two sacs further communicated with each other. The patient, a commercial traveller of thirty-seven, had suffered for years with symptoms of dilatation of the aorta and cardiac enlargement, and at last a pulsating tumour appeared at the left side of the spine, which threatened to burst. Death, however, suddenly took place from internal hæmorrhage, with epistaxis. Only three similar cases had been recorded in the *Transactions*.

Mr. Callender showed a Femoral Artery which had been tied with Carbolised Gut, and a series of Gut Ligatures which had been subjected to the action of wound-secretions. The specimen of artery was the superficial femoral of a woman of fifty, removed twenty days after amputation. The artery was patent at its extremity; no trace of the ligature remained—there was, in fact, only an ordinary fibrinous plug. This result had appeared so alarming that he had considered it necessary to make certain experiments, and the result of these was as follows:—1. A series of catgut ligatures were placed in a wound (after the removal of a fatty tumour), and individually examined at particular intervals. The result showed that catgut ligatures will not last over fifty to sixty hours. 2. A series of catgut ligatures were placed in distilled water at a constant temperature of 99°. After 100 hours no change whatever was found to have occurred. Mr. Callender, therefore, arrived at these conclusions—(1) that after the application of a catgut ligature to an artery, we must after a time rely upon the clot; (2) that the time we can rely upon the ligature is not more than fifty or sixty hours, or even less if there is strain; and (3) that the changes in the ligature are not due simply to the fluid, but to the nature of the secretions.

Dr. Heywood Smith inquired regarding the mode of application of the ligatures, and Mr. Gay and Mr. Maunder asked about certain other details. Mr. Callender replied that he was in these experiments simply testing the catgut.

Dr. Wickham Legg exhibited a specimen of Mitral Stenosis with Hypertrophy of the Left Ventricle. The current opinion was that the left ventricle is atrophied in these cases; in this specimen it was hypertrophied. The kidneys were sound; there was no great degree of atheroma, but the aorta was perhaps somewhat narrow.

Dr. Legg also exhibited a specimen of Cancer of the Portal Vein. There was cancer of the stomach and thrombosis of the gastro-epiploic vein.

Dr. Greenfield showed a specimen of Cylindrical Epithelioma of the Liver, with microscopic sections and drawings of the same. The subject was a woman of thirty-three, who died with the symptoms of cancer of the liver. That organ was found greatly enlarged, and contained numerous small, whitish, firm, rounded nodules, whilst a considerable part of the organ was converted into a hard, dense mass of fibrous-looking material. The mediastinal glands were enlarged, white, and soft, and the lungs contained very numerous smallish nodules of white colour. The other organs were healthy, with the exception of a simple cyst connected with the left ovary. The microscopic structure of the new growth was similar in all the organs affected: it consisted of spaces of tubular or irregular shape, formed by a more or less perfectly developed connective-tissue stroma, which were lined for the most part with cells resembling columnar epithelium in a single or double layer, so as to form distinct cavities. Some of the spaces, however, were lined by spheroidal cells, and others were completely filled by them. The stroma, which was incompletely developed in the growths in the lung, tended to increase and become more fibrous in the liver, so that lar;

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tracts of fibrous tissue, with the fattily degenerated remains of cells, were found in that organ. The growth in the liver was to be regarded as primary, and most probably had as its starting-point the epithelium of the bile-ducts. The nature of the growth was undoubtedly that described as columnar- or cylindrical-celled epithelioma.

Dr. Whipham referred to a similar case exhibited by himself two years ago.

Mr. Pugin Thornton showed a specimen of Syphilitic Narrowing of the Trachea from a man aged thirty-one, with a history of primary syphilis, on whom tracheotomy was successfully performed in November, 1873, for the relief of sudden dyspnœa. Stridor had existed for some time before. Severe dyspnœa recurred in March, and was relieved for a few days by a longer tube. Death followed in a few weeks. No constriction could be detected by the probe ante-mortem. The respiratory passages were found after death thickened and ulcerated from the larynx to the bronchi, and at the fourth or fifth tracheal ring was a cicatricial constriction admitting only a No. 8 bougie. Such cases might be mistaken for aneurism of the aorta.

Mr. Gay exhibited a specimen of Adenoma from the Breast of a young woman, in continuance of the case already several times mentioned in the *Transactions*, the first operation having been performed thirteen years ago. There was now a growth of spindle-cells in the tumour.

Mr. Nunn exhibited Photographs of the Effects of Injury to the Ulnar Nerve. In the first case, that of a boy, an injury to the nerve just beyond the pisiform bone had resulted in inability to extend the fingers from paralysis of the interosseous muscles. The same effect had taken place in the second case, where the nerve had been divided on the proximal side of the bone. The third was a case of syphilitic thickening of the ulnar nerve near the inner condyle, and resulted in anæsthesia of the fingers corresponding with atrophy of the interossei muscles, but less paralysis.

Dr. Vandyke Carter said that leprous disease of this nerve was very common in India, and there the partial flexion of the fingers and the anæsthesia were early symptoms.

Mr. Wilkinson showed a specimen of Vascular Tumour from the Neck of a child of eight months. The swelling had existed two months. It spread over the front of the neck and the sternum, forcing the head back. It presented superficial venous enlargements, and no pulsation. Along the middle line of the sternum it was fixed, and communicated with the anterior intercostal vessels, and deeply it was found to surround the thymus and thyroid and ascend as high as the submaxillary glands and the pharynx. In structure it seemed to be a diffused adenoid growth as much as a vascular tumour. (Referred to the Morbid Growth Committee.)

NEW INVENTIONS.

BRAND AND CO.'S ESSENCE OF BEEF.

Brand's Essence of Beef can hardly be called a new invention, seeing that it has now been in use for a number of years, but only in the hands of a select few. Like many other things, it had a small beginning, but now that the proprietors have entered on its manufacture on a large scale, and are prepared to supply it in almost any quantity, we feel it our duty to make the existence of such an admirable preparation more widely known. This we do all the more readily from a knowledge that the preparation is not so extensively used as it deserves to be, from the sole reason that its value is not so generally appreciated as it might be, even if its existence is known and recognised. Moreover, having recently had to employ it on a larger scale, and over a longer period than usual, we were the more vividly impressed with its rare merits. This essence of beef consists of the juice of the meat, extracted solely by heat, without the addition of water or any other element. In the tin it ordinarily assumes the consistence of a thin jelly, and is best exhibited cold, a teaspoonful being given at a time. Used in this way, a patient may be supported and actually gain strength with no other aliment whatever, and that, too, when the digestive and bodily powers are at the lowest possible ebb. This is no mere matter of theory or *à priori* reasoning, but a matter of unimpeachable experience, and on that ground alone we take leave most earnestly to commend it to our professional brethren.

Another very good preparation made by the same firm is their concentrated beef-tea, but the flavour of this is not so delicate as is that of the essence. It is sold in skins containing the solid beef-tea, something like Whitehead's, and requires to be dissolved in boiling water. We may add that the flavour of the beef-tea so prepared is greatly improved by the addition of a pinch of celery salt. We should add that all these preparations are made on the premises at 11, Little Stanhope-street, top of Down-street, Mayfair, W.

OBITUARY.

WILLIAM BURKE RYAN, M.D. Lond., F.R.C.S.

Dr. Ryan died at New Ross, Wexford, on June 4, after a few days' illness, in the sixty-fifth year of his age. He was the son of Michael Ryan, Esq., of Old Town, Queen's County, and was born in 1810. He commenced his medical education in 1827 by an apprenticeship to Mr. Fitz-Simons, of Kilkenny, and, having attended lectures at the Jervis-street School, became L.M. Dub. in 1831, and M.R.C.S. Eng. in 1833. After a short assistantship at Oswestry, Dr. Ryan commenced practice at Sutton Coldfield, near Birmingham. About 1845 he removed to London, and began to prepare himself for the examinations of the University of London, graduating as M.B. in 1848, and M.D. (first class) in 1857. In 1861 he became a Fellow of the College of Surgeons (by examination). Dr. Ryan was the author of a treatise on "Infanticide," and in 1856 gained the Fothergillian Gold Medal by an essay on the same subject. For the past twenty-four years he had been engaged in general practice at Bayswater, but had retired about a month before his death. Deep sympathy is evinced for the widow, who is almost totally blind, and has been for many years crippled by chronic rheumatism.

William Burke Ryan, M.D., received his preliminary education at a private school in Old Town, Queen's County. He afterwards entered as student in one of the Dublin schools, and received the L.M. Dublin, 1831. He immediately afterwards repaired to London, and became a Member of the Royal College of Surgeons in 1833, and L.S.A. in 1839. He took the M.B. London in 1848, and M.D. in 1857. In 1861 he became a Fellow of the College of Surgeons by examination. He commenced practice in Bayswater about forty years since, when that suburb was little more than a country village. He continued in that neighbourhood to the last, having removed some years since to Norfolk-terrace, Westbourne-grove. As may be inferred from the nature of his qualifications, Dr. Ryan was a man of ability and of considerable acquirements. I believe he never had a large practice, but it was sufficient to keep him as a gentleman. He devoted a considerable portion of his time to the study of medical jurisprudence, and was the author of several important works in reference to it; the chief of these were as follow:—"On Infanticide: its Law, Prevalence, Prevention, and History." Contributed a "Case of Poisoning by a Large Dose of Arsenic, where the symptoms were unusually delayed and sufferings prolonged," read before the Medical Society of London (*Medical Gazette*, 1851); "On the Communicability of Gonorrhœa in reference to Medical Jurisprudence" (*Ibid.*, 1851); "Extensive Suicidal Wound of Throat" (*Medical Times and Gazette*, 1852). He was also awarded the Fothergillian Gold Medal 1856 for an essay on "Infanticide in its Medico-legal Relations." For some years Dr. Ryan was assistant-surgeon to the 8th Middlesex Rifle Volunteers. He was a crack shot, and obtained many prizes. About ten years since—it was supposed, in consequence of the concussion resulting from firing off his rifle—he suffered from inflammation and exfoliation of a portion of the right superior maxilla; this confined him to his house for some time, altered his appearance very materially, and inflicted a shock on the constitution, from which, probably, he never perfectly recovered. He was a kind-hearted, estimable, and honourable man. J. F. C.

The Norwegian medical writer, Dr. C. A. Egeberg, born in 1809, died at Christiania on June 7. He was one of the most highly esteemed of Scandinavian physicians.—*Academy*.

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MEDICAL NEWS.

UNIVERSITY OF DUBLIN.—SCHOOL OF PHYSIC IN IRELAND.—Trinity Term, 1874.—At the examination for the Degree of Bachelor of Medicine, held on Monday and Tuesday, June 8 and 9, the successful candidates were arranged in order of merit as follows:—Charles G. Young, Joseph Hunter, equal; William L. Chester, James W. Eakin, George C. Forsyth, William Walter, John C. Dorman; Phineas B. Tuthill, Alexander J. MacLaughlin, equal; James B. Eaton; Henry J. Leonard, Henry Pollen, equal; William Owen, William Spear, equal; Thomas Euright, Thomas Leahy, equal; William Chatterton, Frederick Tuthill, equal; J. De Burgh Griffith, John D. Fausset; George W. Murphy, Anthony Lynch, equal; James Murphy, Charles E. James, equal; Joseph W. Boyce, William Johnston. At a private examination the following gentlemen also qualified for the M.B. degree:—John Sarsfield Comyn, Lambert H. Ormsby. *Medical Travelling Prize:* This prize, value £50, was awarded to Mr. James W. Eakin. At the examination for the Degree of Master in Surgery, held on Monday and Tuesday, June 15 and 16, the candidates passed in the following order of merit:—James W. Eakin; Charles G. Young, John C. Dorman, equal; William L. Chester, James Murphy; Morgan F. Hamerton, Joseph Hunter, equal; William Chatterton, Charles N. Gwynne, John D. Fausset. *Surgical Travelling Prize:* This prize, value £50, was awarded to Mr. Charles G. Young. Mr. Theodore Stack was especially recommended for a second prize by the examiners.

QUEEN'S UNIVERSITY IN IRELAND.—A public meeting of the University for conferring degrees was held on Monday, June 22, at Dublin Castle. The following members of the Senate were present:—Sir Dominic Corrigan, Bart., M.D., Vice-Chancellor; Sir Robert Kane, M.D., F.R.S.; Edward Berwick, President of Queen's College, Galway; William K. Sullivan, President of Queen's College, Cork; David Ross, LL.B.; Professor Moffett, LL.D.; Professor Redfern, M.D.; Professor Maxwell Simpson, F.R.S.; G. Johnstone Stoney, F.R.S., Secretary to the University. The degree of Doctor in Medicine was conferred on John Adderley, Cork; William Edwards Breton, Cork; William Brooke, B.A., Galway; Charles Cooper, Cork; James Crofts, Cork; William Davis, Galway; Alexander Dempsey, Galway; Gerald Fitzgibbon, Cork; John Philip Greeny, Cork; Christopher Gunn, Cork; Charles A. Harvey, B.A., Cork; Thomas Loane, Cork; David M'Coulrey, Belfast; William M'Iver, Belfast; Timothy Mullane, Cork; Michael Munro, Belfast; P. P. Fenelon O'Connor, B.A., Galway; William Ross, M.A., Belfast; Robert Tidbury, Cork. The degree of Master in Surgery was conferred on James Moran, B.E., M.D., Cork; Charles J. M'Cartie, M.D., Cork; John James Morris, M.D., Galway; John Adderley, Cork; William Edwards Breton, Cork; Christopher Gunn, Cork; Charles A. Harvey, B.A., Cork; Thomas Loane, Cork; David M'Coulrey, Belfast; Timothy Mullane, Cork; P. P. Fenelon O'Connor, B.A., Galway; William Ross, M.A., Belfast. The diploma in Midwifery was conferred on James Moran, B.A., M.D., Cork; John Adderley, Cork; William Edwards Breton, Cork; James Crofts, Cork; John Philip Geany, Cork; Christopher Gunn, Cork; Charles A. Harvey, B.A., Cork; David M'Coulrey, Belfast; William M'Iver, Belfast; Timothy Mullane, Cork; P. P. Fenelon O'Connor, B.A., Galway; William Ross, M.A., Belfast; Robert Tidbury, Cork; Charles H. Haines, B.A., M.D., Cork; James Magill, B.A., M.D., Cork. The following candidates were reported as having passed the second University examination in Medicine:—John P. Balbirnie, Belfast; Robert Beattie, Galway; David Bradley, Belfast; James F. Brodie, Galway; George H. Bull, Cork; William F. Carmody, Cork; William Coates, Cork; Jephson Connell, Cork; John J. P. Coonilliac, Cork; Patrick Dempsey, Belfast; Robert Ealer, Belfast; Francis Meagher Geoghegan, Galway; George T. Goggin, Cork; Charles Good, Belfast; James J. Gorham, B.A., Galway; H. C. Kirkpatrick, Belfast; George Latour, Cork; William M'Afee, Galway; James Thomas M'Namara, Galway; Edward George Marks, Galway; Charles F. Marks, Galway; Samuel D. Martin, Belfast; Robert Moore, B.A., Belfast; James Moorehead, Belfast; Edmund Murphy, Belfast; Francis H. S. Murphy, Cork; Channing Neill, Belfast; George F. Nicholson, Galway; Michael R. O'Connor, Cork; William S. Paterson, Cork; William D. Power, Cork; William A. Quayle, Belfast; Charles K. Tanner, B.A., Cork; William H. Thornhill, B.A., Cork; John Wade, Galway; James O'B. Williams; William C. Williamson, Cork; Daniel Wilson, B.A., Cork.

APOTHECARIES' HALL.—The following gentlemen passed their examination in the Science and Practice of Medicine, and received certificates to practise, on Thursday, June 18:—

Pugh, John Hopkins, Hemel Hempstead.
Wilson, Henry, Clifton-park, Birkenhead.

The following gentlemen also on the same day passed their primary professional examination:—

Alfred Rees, University College.
Todd, Howard James McChleary, St. Thomas's Hospital.
Wilkins, Gilbert Hamilton, St. Thomas's Hospital.

APPOINTMENTS.

*** The Editor will thank gentlemen to forward to the Publishing-office, as early as possible, information as to any new Appointments that take place.

DICKSON, HAMNER, M.C. Edin.—Resident Clinical Assistant to St. Luke's Hospital, Old-street, E.C.

POLLOCK, ARTHUR JULIUS, M.D., F.R.C.P. Lond., M.R.C.S. Eng.—Lecturer on the Principles and Practice of Medicine at Charing-cross Hospital.

SILVER, ALEXANDER, M.A., M.D., M.R.C.P. Lond., C.M.—Lecturer on Clinical Medicine at Charing-cross Hospital.

WILL, J. C. OGILVIE, M.D., C.M.—Junior Surgeon to the Royal Infirmary, Aberdeen.

NAVAL APPOINTMENTS.

ADMIRALTY.—W. L. Gordon, M.D., Staff Surgeon, to the *Osborne*; Frederick A. Bryce, Staff Surgeon, second class, to the *Devastation*.

BIRTHS.

BRISTOWE.—On June 12, at 11, Old Burlington-street, W., the wife of J. S. Bristowe, M.D., F.R.C.P., of a son.

CLARKE.—On June 9, at Bank-parade, Manchester, the wife of Alexander Carson Clarke, M.D., of a son.

CONSTANT.—On June 18, at St. Leonard's-on-Sea, the wife of Surgeon-Major F. G. Constant, M.D., 12th Bengal Cavalry, of a daughter.

DICKINSON.—On June 19, at Bedford-street, Liverpool, the wife of Edward H. Dickinson, M.B., of a son.

DIVER.—On June 18, at Yately House, Kenley, Caterham-valley, the wife of E. Diver, M.D., of a daughter.

FIELD.—On June 12, at Bishop's-road, Hyde-park, the wife of George Field, M.R.C.S., of 28, Welbeck-street, Cavendish-square, of a daughter.

HARLEY.—On June 11, at 25, Harley-street, W., the wife of George Harley, M.D., F.R.C.P., F.R.S., of a daughter.

HOGG.—On June 22, at Ainslie Lodge, Turnham-green, W., the wife of W. Gordon Hogg, M.D., of a daughter.

IRELAND.—On June 23, at The Limes, Linton, Cambs, the wife of Edward Ireland, M.R.C.S. Eng., L.S.A., of a son.

MACKINNON.—On June 17, at 1, Lyncombe-villas, Herbert-road, Woolwich, the wife of Surgeon-Major C. Mackinnon, M.D., of a son.

SANKEY.—On June 11, the wife of H. H. Sankey, M.R.C.S. Eng., L.S.A., Medical Superintendent of the Oxford County Asylum, of a son.

WRIGHT.—On June 17, at Barnhill, Glasgow, the wife of Strethill H. Wright, M.D. Edin., M.R.C.P., of a daughter.

MARRIAGES.

ANDREW—MACDOWEL.—On June 9, at St. Stephen's Church, Dublin, Harry P. Andrew, late Captain 8th Hussars, to Selina Henrietta (Lina), second daughter of Professor MacDowel, M.D., T.C.D.

ATKYNS—HOWAT.—On June 23, at St. Saviour's, Hoxton, Alfred Atkyns, M.D., 91, New North-road, to Frances Rebecca, widow of J. B. Howat, Esq., of Bridgen Hall, Enfield.

BOOTH—CANWARDEN.—On June 11, at St. Saviour's Church, South Hampstead, Edward Johnson Hardy Booth, M.R.C.S., L.S.A., of Eastthorpe-grove, Mirfield, Yorkshire, to Amy Sophia Canwarden, niece of Mrs. Harris, of Isham, Northamptonshire.

BRADSHAW—HAYCOCK.—On June 17, Watson Bradshaw, L.R.C.P. Edin., M.R.C.S. Eng., L.S.A., late Surgeon R.N., to Florence Caroline, second daughter of the late Joseph Haycock, Esq., of Wells, Norfolk.

GILLIES—MADDOX.—On June 10, at St. James's, Shirley, Andrew Gillies, Commander Royal Mail Company's Service, to Isabella, daughter of R. L. Maddox, M.D., Woolston, Southampton.

HUTTON—MORISON.—On June 18, at St. James's Church, Leith, N. B. Edward Hutton, son of the late John Hutton, Esq., of Leith, to Frances Dudley Boyd, youngest daughter of the late Sir Alexander Morison, M.D., of Johnsburn, Midlothian, N.B.

LIGHTFOOT—COXON.—On June 20, at Jesmond Church, Newcastle-on-Tyne, Thomas Bell Lightfoot, son of R. T. Lightfoot, L.R.C.S., L.S.A., to Emilie Ainslie, third daughter of Henry Coxon, Esq., Newcastle-on-Tyne.

PARKER—THANE.—On June 18, at St. George's, Bloomsbury, John Thomas, eldest son of J. F. Parker, Esq., of Belvedere House, Bexley Heath, and Oxford-street, to Alice Kitty Dancer, eldest daughter of G. D. Thane, M.D., of 15, Montague-street, Russell-square.

THOMPSON—DE MORGAN.—On June 17, at St. Luke's, Chelsea, Reginald Edward Thompson, M.D., son of the late Mr. Sergeant Thompson, to Anne Isabella, elder surviving daughter of the late Augustus De Morgan Esq.

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DEATHS.

ATCHISON, THOMAS, M.R.C.S. Eng., L.S.A., Surgeon-Major, late of Her Majesty's Bengal Army, eldest son of Colonel Atchison, of Tyersall House, near Bradford, Yorkshire, at 27, Gloucester-crescent, Regent's-park, on June 9, in his 51st year.

BELL, JESSIE, wife of J. D. Bell, Esq., of Totteridge-park, Herts, and second daughter of the late John Taylor, M.D., of Penrith, very suddenly, from rupture of bloodvessel, on June 18.

BRAITHWAITE, MARY, only daughter of William Braithwaite, M.D., at Leeds, on June 9, aged 31.

CHARLTON, JOHN FITZGERALD, M.D., Royal Navy, late Staff-Surgeon Royal Marine Artillery, at his residence, Phœnix Villa, Lewisham, on June 11, aged 60.

HALL, ANNA, widow of David James Hall, M.D., R.N., and eldest daughter of the late Alexander Brodie, D.D., vicar of Eastbourne, on June 13, at Eastbourne.

KELLY, HENRY JOSEPH, M.R.C.S. Eng., younger son of the late John Kelly, Esq., of Frognal House, Hampstead, at Great Yarmouth, on June 8, aged 47.

MCKENNA, JOHN, M.D., late Deputy Inspector-General of Hospitals, Madras Presidency, at Egmore House, 82, Lancaster-road, Notting-hill, W., on June 3, in his 76th year.

MARTIN, GEORGE ANNE GREENWELL, only son of the late George Anne Martin, M.D., of Ventnor, Isle of Wight, at Ontario, Canada West, of consumption, on May 22.

NISBET, SIR ALEXANDER, M.D., M.R.C.P. Lond., L.R.C.S. Edin., R.N., Inspector-General of Hospitals, and Honorary Physician to Her Majesty, at his residence, Arley Lodge, Lee, on June 22.

PERRY, JANE HELEN, widow of Robert Perry, M.D., at Dover Cottage, Helensburgh, on June 21.

WEBSTER, SARAH ANN, wife of Cecil Webster, M.R.C.S., at Bewdley, after a few days' illness, on June 7, aged 38.

VACANCIES.

In the following list the nature of the office vacant, the qualifications required in the Candidate, the person to whom application should be made, and the day of election (as far as known) are stated in succession.

CAXTON UNION.—Medical Officer for the Union Workhouse. Candidates must be duly qualified. Applications, with testimonials, to Henry Mortlock, Clerk to the Union, Caxton, Royston, on or before June 29.

CHARING-CROSS HOSPITAL.—Medical Registrar. Candidates must be duly qualified. Applications, with testimonials, to the Medical Committee, on or before July 1.

DERBY COUNTY LUNATIC ASYLUM.—Assistant Medical Officer. Candidates must be duly qualified in medicine and surgery. The office will be vacant on August 2. Applications, with testimonials, to John Barber, Esq., County Lunatic Asylum, Mickleover, Derby.

KING'S COLLEGE, MEDICAL DEPARTMENT.—Professor of Materia Medica, Professor of Comparative Anatomy, and Physician to King's College Hospital. For particulars, apply to J. W. Cunningham, Esq.

MALE LOCK HOSPITAL, 91, DEAN-STREET, SOHO-SQUARE, W.—House-Surgeon. Applications, with testimonials, to the Secretary, on or before June 30.

NEW LUNATIC FARM ASYLUM, WOODILEE, LENZIE JUNCTION.—Medical Superintendent. Applications, with testimonials, to Mr. P. Beattie, Inspector of Poor, Barony Parochial Chambers, 38, Cochrane-street, Glasgow, on or before July 1.

NORTHAMPTON GENERAL INFIRMARY.—Honorary Physician. Candidates must be duly qualified. Applications, with testimonials, to the Secretary, on or before July 1.

ROYAL ALBERT EDWARD INFIRMARY AND DISPENSARY, WIGAN.—House-Surgeon. Candidates must be duly qualified. Applications, with testimonials, to the Honorary Secretary, on or before June 27.

ST. GEORGE'S HOSPITAL, HYDE-PARK CORNER.—Resident Medical Officer. Candidates must be duly qualified. Applications, with testimonials, to the Secretary (of whom further information may be obtained), on or before June 30.

STOCKPORT INFIRMARY.—Assistant House-Surgeon. Candidates must be duly qualified. Applications, with testimonials, to the Honorary Secretary, on or before July 8.

WEST NORFOLK AND LYNN HOSPITAL, LYNN.—House-Surgeon and Secretary. Candidates must be duly qualified. Applications, with testimonials, to the Weekly Board, on or before July 11.

UNION AND PAROCHIAL MEDICAL SERVICE.

*** The area of each district is stated in acres. The population is computed according to the census of 1871.

RESIGNATIONS.

Brighton Parish.—The Eastern District is vacant; salary £125 per annum. Also the Central District; salary £125 per annum.

Tendring Union.—Mr. William Meadowcroft has resigned the parish of Great Bromley; area 2956; population 754; salary £16 15s. per annum. Also the Sixth District; area 9950; population 2435; salary £40 per annum.

APPOINTMENTS.

Dartford Union.—James Chilcot, M.R.C.S. Eng., L.S.A., to the Workhouse.

St. Saviour's Union.—Dr. Albert J. Bernays, as Analyst for the St. Saviour's District.

Totnes Union.—Robert W. Soper, M.R.C.S. Eng., L.S.A., to the Dartmouth District.

SUPERANNUATION ALLOWANCE.

Mr. Frederick P. Bowen, who has held the office of District Medical Officer in the Hendon Union since the formation of the Union, and was previously Parochial Medical Officer at Harrow, has been awarded a retiring allowance of £20 per annum.

ROYAL COLLEGE OF SURGEONS.—The annual exhibition of preparations, etc., about to be added to the Hunterian Museum, will be on view in the theatre of the College on Tuesday next, and remain open daily until Thursday, the 9th proximo, inclusive.

LICENTIATES IN DENTAL SURGERY.—The half-yearly examinations for the licence in Dental Surgery of the Royal College of Surgeons of England was commenced on Monday last, when only four candidates presented themselves, to whom the following questions were submitted, on Anatomy and Physiology, and Pathology and Surgery, from two to four o'clock; one, at least, of the two questions on both subjects were required to be answered:—*Anatomy and Physiology:* 1. Give the anatomy of the temporo-maxillary articulation. Describe its several movements, and mention the muscles by which they are respectively effected. 2. Describe the various changes of form which the rima glottidis undergoes, and state how and for what purposes these variations are produced. *Pathology and Surgery:* 1. In what forms does syphilis affect the interior of the mouth? Describe the characteristics and treatment of each form. 2. Describe the alteration in tissue which exists in chronic enlargement of the tonsils; and state the inconveniences resulting from the condition, and how they are to be remedied. The following were the questions on Dental Anatomy and Physiology, and Dental Surgery and Pathology—time from five to eight o'clock; two questions, at least, out of the three submitted on each subject were required to be answered:—*Dental Anatomy and Physiology:* 1. Name and describe the microscopic appearances of the tissues concerned in the formation of the enamel and dentine. 2. State the ages at which, and the succession in which the members of the deciduous and permanent sets of teeth are respectively erupted. 3. What are the various purposes fulfilled by the "cementum" in man and other animals? *Dental Surgery and Pathology:* 1. Explain the symptoms and pathology of irritation and acute inflammation of the pulp respectively. Describe the mode of formation and character of secondary dentine, and the symptoms associated with its development. 2. Describe fully the forms of impaction of the third molar teeth, and the consequences frequently resulting from their retarded and difficult eruption. State the treatment of such cases. 3. What is an alveolar abscess? Describe its causes, and the changes which occur in its development, with the several issues to which it may lead. On Monday next the candidates will go through the oral examination.

UNIVERSITY DEGREES.—The number of the degrees conferred by the University of Cambridge during the academical year 1873-74 is the largest on record, amounting to 822. Of this number 11 took the degree of "Doctor"—viz., 4 in Divinity, 4 in Law, and 3 in Medicine; 310 proceeded to the degree of Master of Arts, 20 to the degree of Master of Laws, 462 to the degree of Bachelor of Arts, 2 to the degree of Bachelor in Divinity, 11 to the degree of Bachelor of Laws, and 6 to the degree of Bachelor of Medicine.

IT has been proposed to establish a medical college in Italy to commemorate the centenary of the death of St. Thomas Aquinas (1274). After first considering the expediency of placing it at Naples, the committee appointed to decide the question finally determined upon Rome as the site of the institution, and, at a meeting recently held at the house of Dr. Rudel, formerly professor at the Sapienza College, the necessary steps were taken for its formal inauguration.—*Academy.*

LEMON-JUICE IN DIPHTHERIA.—M. Revillout recommends in the strongest terms the employment of large quantities of pure lemon-juice as a gargle. He says that he and his father have used it during eighteen years, and always with success, it being the most certain application yet known.—*Gazette des Hôpitaux*, June 20.

HEALTH OF SCOTLAND.—During the month of May last there were registered in the eight principal towns of Scotland the deaths of 2568 persons, of whom 1299 were males, and 1269 females. Allowing for increase of population, this number is 158 under the average mortality for May during the last ten years. A comparison of the deaths registered in the eight towns shows that during May the annual rate of mortality was 21 deaths per 1000 persons in Aberdeen, 22 in Perth, 23 in Edinburgh, 24 in Greenock and in Leith, 29 in Glasgow, and 31 in Dundee and in Paisley. Of the 2568 deaths registered, 1005, or 39 per cent., were of children under five years of age. In Perth, 25 per cent. of the persons who died were under five years of age; in Aberdeen, 28; in Edinburgh, 30; in Greenock and in Paisley, 33; in Glasgow, 43; in Leith, 45; and in Dundee, 46 per cent. The zymoti-

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(epidemic and contagious) class of diseases proved fatal to 541 persons, constituting 21·1 per cent. of the mortality. This rate was exceeded in Dundee, owing to the prevalence of scarlatina. Scarlatina continues the most fatal of the epidemics, having caused 166 deaths, or 6·5 per cent. of the whole mortality. This disease was most prevalent in Glasgow, Leith, and Dundee, where it constituted 6·5, 10·8, and 16·3 per cent. of the deaths respectively. Fever caused 61 deaths. Of these, 19 were tabulated as typhus, 34 as enteric, 1 as relapsing, 3 as simple continued, and 4 as infantile remittent fever.

In the "Rajpootana Dispensary, Vaccination, Gaol, and Sanitary Report for 1872-73," Surgeon-Major Moore says, in remarking upon the surgical operations performed:—"At Aboo two cases of removal of foreign bodies require notice. One, the removal of a thick thorn, three inches long, from the interior of the knee-joint, where it had lodged some months, rendering the limb perfectly useless. The skin had closed over the thorn, and its position was with difficulty ascertained. Ten days afterwards the man walked away from the dispensary without assistance. The second case, a gun-shot wound, the ball passing along the crest of the left ilium, in front of the vertebral column, and lodging in the internal surface of the right ilium. It could not, therefore, be extracted from the right side, and all bullet-forceps or other instruments in my possession failed in dislodging the ball from its bed of bone. Eventually the screw of a small pistol-rod was welded on to a rod of iron, the screw passed to the bullet (a distance of nine inches), which was then forcibly impaled, and thus extracted. The man made a good recovery after some portions of exfoliated bone had passed."

NOTES, QUERIES, AND REPLIES.

He that questioneth much shall learn much.—Bacon.

Mr. J. Forster, Hindmarsh.—Enclosure received.

Dr. E. Newbould, Gisborne.—Enclosure received.

Dr. Robert White, Newfoundland.—Enclosure received.

Jesse.—Dr. Erasmus Darwin first settled at Lichfield, but in 1781 he retired to Derby, where he died suddenly in 1802.

Dr. Fairmann will see that his communication has been attended to.

Collegiate Examinations.—Had the writer of the notice to which you allude attended the fellowship examinations, as we did by the courtesy of the President, he would considerably have modified his very strong expressions. For instance, a beautifully prepared specimen of the diaphragm was called by one of the candidates the *stomach*—an answer disgraceful in a candidate for the membership. Another preparation, a brilliant injection of the eye, was called one of the liver; on the candidate being told to look again, he said the *lung;* whereupon he was taken to the male organs of generation, where his ignorance was, if possible, still greater. We are quite certain that no "doubtful and inferior student" passed the examination, as stated by our contemporary—a very poor compliment to those who did.

M.D. and F.R.C.S. Eng.—As there are several graduates in medicine in the published list of stewards of the Fellows' festival on the 2nd proximo, we are unable to say why our friend Dr. Humphry only should be selected for this distinction.

A Young Fellow.—You cannot give your *three* votes to one candidate; you may plump for the gentleman mentioned, or give one each to any three of the candidates. The College will furnish you with voting forms. The election is by ballot.

M.D., Southampton.—The several Faculties in which degrees are granted take rank as follows:—First, Divinity; second, Law; third, Medicine; and fourth, Music. Persons of the same academical rank, if of the same university, take precedence amongst each other according to the dates of their degrees. The University of St. Andrews ranks immediately after those of Oxford and Cambridge.

Martin G.—Benjamin Gooch practised as a surgeon at Shottisham, in Norfolk. His writings were reprinted collectively in 1792, in three volumes.

Godolphin.—1. *Med.-Chir. Trans.*, vol. 36, p. 114. 2. *Guy's Hospital Reports*, 1861.

Hector.— "This precious secret let me hide,
I'll tell you everything beside."—*Cotton.*

W. A. W.—Mr. William Hewson's connexion with Dr. Hunter was dissolved in 1770. He then began a course of anatomical lectures alone in Craven-street, Strand. These were very successful, but he was seized with a fever occasioned by a wound received in dissecting a morbid body, which terminated fatally on May 1, 1774, in his thirty-fifth year.

Zeno.—Aaron H. David, M.D., D.C.L., is the Dean of the Faculty of Medicine of the University of Bishop's College, Lennoxville, Canada.

Alleged Change of Climate.—The island of Great Britain always had a great reputation for fertility, and fertility depends on the weather. Whoever would persuade us that the weather has undergone alteration for the better or worse, must, to do it thoroughly, undertake a very laborious task. Julius Cæsar speaks of Britain as maintaining a countless number of inhabitants, and as being productive of cattle. The Venerable Bede, who died in 735, says that Britain is famous for grain, and for trees, and is well adapted for rearing cattle and beasts of burthen. *It has also vineyards in some places*, and has plenty of land and water fowl; its rivers abound in fish, and there are copious springs. There is the greatest plenty of *issicia* (pike or salmon?) and eels; seals, whales, and dolphins are taken, shell-fish containing pearls of various colours, and cockles, of which a scarlet dye is made; besides springs both hot and salt for baths. Ireland, continues the Venerable Bede, surpasses Britain in wholesomeness of climate; the snow scarcely ever lies there three days, no man need make hay in the summer for winter provision, nor build stables for his horses. No reptiles are found there. The island abounds in milk and honey, nor is there any lack of vines, fish, or fowl, and it is remarkable for deer and goats. (The Venerable Bede lays emphasis on one bit of ethnology which is far from being popularly known yet; "Ireland," he says, "is properly the country of the Scots, who, migrating from thence, added a third nation in Britain to the Britons and Picts.") Anyone who would make out that the climate has altered, must say whether it be for better or worse, wetter or drier, hotter or colder, whether the extremes of heat and cold are increasing, and must give facts, if he can't give figures, in support of his opinion.

Bishop Berkeley in a New Capacity.

TO THE EDITOR OF THE MEDICAL TIMES AND GAZETTE.

Sir,—It is said that Bishop Berkeley once undertook to make a man grow, and succeeded—could you give me the reference? I am, &c.,
School of Medicine, Liverpool, June 16. Sacul.

The Use of Split Pigeons.

TO THE EDITOR OF THE MEDICAL TIMES AND GAZETTE.

Sir,—Could any reader inform me why split pigeons were applied to the soles of the feet as a remedy, and for what disease or morbid condition? The middle of the seventeenth century is about the date of the prescription.
June 20. I am, &c., M. D.

Dr. Gayton's Statistics.

TO THE EDITOR OF THE MEDICAL TIMES AND GAZETTE.

Sir,—The remarks on my annual report which you did me the honour to make on the 30th ult. having just come under my notice, will you kindly permit me to point out an unintentional but important error. In the journal it runs thus—"The report shows that of those admitted during the *first* twelve months, 11 out of 78, or 14·1 per cent., only of the vaccinated died; whilst of those not protected by vaccination, 9 out of 32, or 28·1 per cent., died." By changing "first" into *last* the paragraph is rendered correct. This table was given in order to show the number of admissions and deaths during the year 1873, and a note at the same time was appended to the effect that percentages from so small a number could not be relied on—in fact, were worthless,—and for this reason in the succeeding table the total number since the opening of the hospital was produced, showing very different results in the rate of mortality, both in the vaccinated and unvaccinated class. I am, &c., W. Gayton, Medical Superintendent.
Homerton Small-pox Hospital, June 19.

Medical Men and the Police.

TO THE EDITOR OF THE MEDICAL TIMES AND GAZETTE.

Sir,—Will you allow me to inform Mr. Jones that medical men are not expected "to be at the beck and call of the police by night and by day without fee or reward." Remuneration is granted by Government to every medical man called in by the police at the rate of 3s. 6d. for each occasion of medical service being rendered during the day (*i.e.*, from 8 a.m. to 10 p.m.), and 7s. 6d. during the night (*i.e.*, from 10 p.m. to 8 a.m.). Whenever a medical man is called in by the police, they are bound to furnish him with a certificate of the fact, for which purpose special forms are provided. Twice a year these certificates are forwarded by the medical man receiving them to Scotland-yard, and after they have been examined notice is sent that the amount claimed is payable. The certificate should be delivered at the house of the medical man by the constable who called him in; but in case this should not be done, application for the certificate should be made at the police-station of the district. Trusting that Mr. Jones will in future receive a certificate whenever he is called in by the police, I am, &c., Francis John Buckell, M.B. Lond.,
Islington, June 20. Divisional Surgeon of Police.

Items from over the Water.

A Drunkards' Home established by Women.—On the afternoon of June 1, the Woman's Union Temperance Praying Band dedicated a home at No. 1021, South Seventeenth-street, Philadelphia. The house is large and convenient, and intended for reformed drunkards saved by the ladies of the Praying Band. There are accommodations for twenty persons, who will pay a nominal board, while those who cannot will be kept gratis. There are already nine men and two women in the home, which is neatly furnished. The exercises at the dedication were of a very interesting character. Mrs. Dr. E. J. French is president of the home.

A Female Detective.—Mary Hanley, the famous female detective, who arrested Kate Stoddard, indicted for the murder of Charles Goodrich, has been frequently at police headquarters during the past few days. Her presence excites much comment, as it is believed that she is at work, by direction of the police authorities, on some of the many murder cases that burden the criminal calendar of the courts of this city.

Female Clubbists.—The last social meeting of the season was held by the Society of Sorosis, at Delmonico's, Fifth-avenue and Fourteenth-street. The Rev. Phœbe A. Hanaford presided. A number of addresses were delivered by the lady members, and several pieces of original poetry were recited.

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Dens Sap.—The examiners for the Licence in Dental Surgery of the Royal College of Surgeons are—Messrs. Hilton, Clark, Hancock, Cartwright, Ibbetson, and Salter; with the exception of the latter gentleman, who is a *Member*, all the others are *Fellows* of the College. Write to the Secretary for the regulations. The questions at the last examination will be found in another column.

Larynx, Savile-row, draws attention to a testimonial in favour of the Apollinaris Water, from a gentleman signing himself "F.R.C.S.E., Senior Surgeon to the Central Throat and Ear Infirmary, and to the *Royal Society of Physicians*." We know nothing of the latter Society. He is *not* a Fellow of the Royal College of Surgeons *of England*; if of Edinburgh, it should be "F.R.C.S. *Ed.*"

BOOKS AND PAMPHLETS RECEIVED—

Van Buren on the Genito-Urinary Organs—Shapter on Diseases of the Heart—Ophthalmologische Mittheilungen aus dem Jahre 1873, von Dr. Albert Mooren—Douze Cents Formules favorites des Médecins, Français et Etrangers, par le Dr. N. Gallois—Harvey's Syllabus of Materia Medica—Des Déformations Permanentes de la Main, par le Dr. H. Meillet—Report of the Asylum for Idiots—Extracts from a Book kept at the Infirmary, Newcastle-on-Tyne—Statistical Report on the Health of the Navy for the year 1872—Manning and Elliott on the Muscles of the Human Body—Report of the Aboo Lawrence School, Bombay—Annual Report of the Medical Officers of Health for Bedford—Braithwaite's Retrospect of Medicine—Annuario delle Scienze Mediche riassunto delle più importanti pubblicazioni dell' anno, per I Dottori P. S. Pini.

PERIODICALS AND NEWSPAPERS RECEIVED—

Lancet—British Medical Journal—Medical Press and Circular—Nature—Pharmaceutical Journal—The Grocer—Allgemeine Wiener Medizinische Zeitung—Chicago Medical Journal—Berliner Klinische Wochenschrift—Centralblatt für Chirurgie—Estratto dalla Gazzetta Clinica di Pal—Gazette Médicale—Gazette Hebdomadaire—La Tribune Médicale—La France Médicale—Le Progrès Médical—Le Mouvement Médical—Bulletin de l'Académie de Médecine—Revista Médico-Quirúrgica—American Journal of Insanity—Marble Arch, No. 2—Jackson's Oxford Journal—Students' Journal and Hospital Gazette—Public Health—Gazette des Hôpitaux—Saturday Vox Populi—Canada Medical and Surgical Journal—Canada Lancet—Sunderland Times—Journal of Anatomy and Physiology—Missouri Clinical Record—Detroit Review of Medicine.

COMMUNICATIONS have been received from—

Dr. R. White, Newfoundland; Mr. J. Forster, Hindmarsh; Dr. Newbould, Gisborne; Dr. D. Dufer, Paris; Dr. Ogilvie, Aberdeen; Mr. G. Gaskoin, London; The Registrar of the Society of Apothecaries; Mr. G. Sutton, London; M.D.; Dr. Gayton, Homerton; Dr. Handfield Jones, London; Mr. P. Le Neve Foster, London; Dr. Laycock, Edinburgh; Dr. E. Haughton, Upper Norwood; Sacul; Dr. Dyce Duckworth, London; Sir Edmund A. H. Lechmere, London; Mr. F. J. Buckell, London; Dr. W. Arding, Wallingford; R. J. D., U.S.A.; Mr. G. C. Coles, London; The Registrar-General, Edinburgh; Mr. G. Brown, London; Mr. J. B. Fairmann, Hanley; Mr. H. Bryden, Stockport; Dr. Henry Bennet, London; Mr. H. Dickson, London; Dr. J. C. Will, Aberdeen; Mr. E. Ireland, Linton; Dr. Arlidge, Newcastle-under-Lyme; Mr. J. Chatto, London.

APPOINTMENTS FOR THE WEEK.

June 27. *Saturday* (*this day*).

Operations at St. Bartholomew's, 1½ p.m.; King's College, 2 p.m.; Charing-cross, 2 p.m.; Royal Free, 9 a.m. and 2 p.m.; Hospital for Women, 9½ a.m.; Royal London Ophthalmic, 11 a.m.; Royal Westminster Ophthalmic, 1½ p.m.; St. Thomas's, 9½ a.m.

29. *Monday*.

Operations at the Metropolitan Free, 2 p.m.; St. Mark's Hospital for Diseases of the Rectum, 2 p.m.; St. Peter's Hospital for Stone, 3 p.m.; Royal London Ophthalmic, 11 a.m.; Royal Westminster Ophthalmic, 1½ p.m.

30. *Tuesday*.

Operations at Guy's, 1½ p.m.; Westminster, 2 p.m.; National Orthopædic, Great Portland-street, 2 p.m.; Royal London Ophthalmic, 11 a.m.; Royal Westminster Ophthalmic, 1½ p.m.; West London, 3 p.m.

July 1. *Wednesday*.

Operations at University College, 2 p.m.; St. Mary's, 1½ p.m.; Middlesex, 1 p.m.; London, 2 p.m.; St. Bartholomew's, 1½ p.m.; Great Northern, 2 p.m.; St. Thomas's, 1½ p.m.; Samaritan, 2½ p.m.; King's College (by Mr. Wood), 2 p.m.; Royal London Ophthalmic, 11 a.m.; Royal Westminster Ophthalmic, 1½ p.m.

Obstetrical Society, 8 p.m. Dr. Schnegierief (of Moscow), "On Vaginismus." Dr. John Williams, "On the Relation between Congestion of the Uterus and Flexion of the Organ." Dr. Bathurst Woodman, "On the Treatment of Mammary Abscess." Dr. Boulton, "Cases of Melancholia and Epilepsy caused by Uterine Disorder." Dr. Galton will show an Instrument for the Treatment of Antefiexion of the Uterus. And other communications.

2. *Thursday*.

Operations at St. George's, 1 p.m.; Central London Ophthalmic, 1 p.m.; Royal Orthopædic, 2 p.m.; University College, 2 p.m.; Royal London Ophthalmic, 11 a.m.; Royal Westminster Ophthalmic, 1½ p.m.; Hospital for Diseases of the Throat, 2 p.m.

3. *Friday*.

Operations at Central London Ophthalmic, 2 p.m.; Royal London Ophthalmic, 11 a.m.; South London Ophthalmic, 2 p.m.; Royal Westminster Ophthalmic, 1½ p.m.; St. George's (ophthalmic operations), 1½ p.m.

VITAL STATISTICS OF LONDON.

Week ending Saturday, June 20.

BIRTHS.

Births of Boys, 1105; Girls, 1109; Total, 2214.
Average of 10 corresponding years 1864-73, 2024·3.

DEATHS.

	Males.	Females.	Total.
Deaths during the week	644	598	1242
Average of the ten years 1864-73	664·2	569·1	1233·3
Average corrected to increased population	...	...	1357
Deaths of people aged 80 and upwards	...	...	42

DEATHS IN SUB-DISTRICTS FROM EPIDEMICS.

	Population, 1871.	Small-pox.	Measles.	Scarlet Fever.	Diphtheria.	Whooping-cough.	Typhus.	Enteric or Typhoid) Fever.	Simple continued Fever.	Diarrhœa.
West	561359	...	2	...	...	9	...	3	1	8
North	751729	...	7	4	2	7	1	4	2	13
Central ...	334369	...	5	9	1	1	...	1	...	2
East	639111	1	4	15	...	4	...	3	5	16
South	967692	...	10	5	1	7	3	3	1	17
Total	3254260	1	28	33	4	28	4	14	9	56

METEOROLOGY.

From Observations at the Greenwich Observatory.

Mean height of barometer	30·105 in.
Mean temperature	58·7°
Highest point of thermometer	70·7°
Lowest point of thermometer	41·2°
Mean dew-point temperature	48·0°
General direction of wind	N.N.E.
Whole amount of rain in the week	0·56 in.

BIRTHS and DEATHS Registered and METEOROLOGY during the Week ending Saturday, June 20, 1874, in the following large Towns:—

Boroughs, etc. (Municipal boundaries for all except London.)	Estimated Population to middle of the year 1874.*	Persons to an Acre. (1874.)	Births Registered during the week ending June 20.	Deaths Registered during the week ending June 20.	Temperature of Air (Fahr.) Highest during the Week.	Lowest during the Week.	Weekly Mean of Mean Daily Values.	Temp. of Air (Cent.) Weekly Mean of Mean Daily Values.	Rain Fall. In Inches.	In Centimetres.
London	3400701	45·1	2214	1242	70·7	41·2	53·7	12·06	0·56	1·42
Portsmouth ...	120436	26·8	80	38	...	...	...	...	0·52	1·32
Norwich	82257	11·0	56	30	61·5	41·8	50·4	10·22	0·23	0·58
Bristol	192889	43·3	116	88	...	...	...	...	...	...
Wolverhampton ...	70896	20·9	57	27	76·0	41·2	53·6	12·00	0·00	0·00
Birmingham ...	360892	43·0	296	165	72·5	42·0	52·1	11·17	0·00	0·00
Leicester	106202	33·2	73	36	68·9	39·8	50·8	10·44	0·01	0·03
Nottingham ...	90894	45·5	47	33	70·9	39·7	52·7	11·50	0·02	0·05
Liverpool	510640	98·0	378	255	66·4	44·8	54·8	12·66	0·00	0·00
Manchester ...	355339	82·8	297	190	...	...	...	...	...	...
Salford	133068	25·7	108	64	73·5	40·0	54·6	12·55	0·00	0·00
Oldham	86281	18·5	63	42	...	...	...	...	...	...
Bradford	163056	22·6	168	86	73·0	43·4	52·4	11·33	0·00	0·00
Leeds	278798	12·9	151	156	75·0	43·0	53·3	11·84	0·01	0·03
Sheffield	261029	13·3	229	136	73·0	42·5	54·8	12·66	0·01	0·03
Hull	130996	36·0	96	39	67·0	37·0	50·4	10·22	0·06	0·15
Sunderland ...	104378	31·6	87	34	66·0	45·0	52·9	11·61	0·00	0·00
Newcastle-on-Tyne	135437	25·2	121	63	63·0	40·0	48·3	9·05	0·00	0·00
Edinburgh	211691	47·8	120	89	71·4	43·3	56·2	13·44	0·00	0·00
Glasgow	508109	100·4	392	269	...	...	...	...	...	...
Dublin	314666	31·3	217	158	70·6	36·3	54·9	12·72	0·00	0·00
Total of 21 Towns in United Kingdm	7618655	36·6	5366	3240	76·0	38·3	52·9	11·61	0·18	0·46

At the Royal Observatory, Greenwich, the mean reading of the barometer last week was 30·11 in. The highest was 30·36 in. on Monday morning, and the lowest 29·93 in. on Wednesday morning.

* The figures for the English and Scottish towns are the numbers enumerated in April, 1871, raised to the middle of 1874 by the addition of three years and a quarter's increase, calculated on the rate which prevailed between 1861 and 1871. The population of Dublin is taken as stationary at the number enumerated in April, 1871.

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INDEX.

A

Abdomen, sphacelus of the, from cancer of the colon, 547
gunshot wound of the, Mr. Heath's clinical observations on a case of, 1
hydatid tumour in the, Dr. H. Jones on cases of, 420
Aberdeen University, pass-lists of the, 467
Académie de Médecine, distribution of prizes and prize subjects at the, 356
Ackworth, Dr. Edward, death of, 362
Adams, Surgeon Dr. Robert, death of, 442
Dr. Robert, Rheumatic Gout or Chronic Rheumatic Arthritis, review, 463
Adelmann, Dr. on the treatment of hæmorrhage by flexion, 273
Adenocele, large, with milk-cyst, specimen of, 113
Adulteration of butter, Dr. Tidy on, 194
Adulteration Act, anomaly and injustice of the, 617
Air, rarefied, M. Paul Bert on breathing in, 405
Albuminuria as a symptom in epilepsy, Dr. Huppert on, 567
convulsions of, bromide of potassium in, 329
Alcohol, medical employment of, Dr. Blakiston on the, 89
Aleppo button and evil, Dr. Wortabet on the, 93
Alfort, the Veterinary School at, 274
Allbutt, Dr. on tapping the chest, 497, 527
Allen, Dr. Peter, obituary notice of, 168
Allin, Mr. John Wesley, death of, 494
Althaus, Dr. Treatise on Medical Electricity, review, 248
catelectrotonus of the ovaries in a case of amenorrhœa, 287
case of infantile syphilitic epilepsy, 398
case of paralysis of the radial nerve from lead-poisoning, 548
Amenorrhœa, catelectrotonus in, Dr. Althaus on, 287
Amyl, nitrite of, Dr. Pick on the action of, 117
Amyloid degeneration, chemistry of, 132
Anæmia, transfusion in, Professor Behier on, 330
Anæsthesia, induction of, during sleep, M. Dolbeau on the, 220
induced by venous injection of chloral, 574
Anderson, Dr. McCall, Introductory Address, notice of, 308
Mrs. Garrett, case of cancer of the colon, 547
Andrews (St.), University of, pass-list of the, 498
Andrews, Dr. on ozone, 354
Aneurism, by anastomosis, ligature of the external carotid in, 500
surgical treatment of, Professor Holmes on the, 640, 691
of the femoral artery in Hunter's canal, case of, 179
gluteal, Professor Holmes on the treatment of, 640
gluteal, Mr. Davy's note on, 636
of the external iliac, cured by compression, Mr. Wheelhouse on a case of, 25
ilio-femoral, Professor Holmes on, 691
palmar, Mr. Cripps on a case of, 630
of the radial artery, Mr. Quain on a case of, 93
thoracic, treated by galvano-puncture, fatal case of, 67
popliteal, treated by flexion and amputation, Mr. Wagstaffe on a case of, 207
treated by pressure, case of, 265
of the anterior tibial, compression in, case of, 397
vide Aorta
Angina Ludwigii, Professor Oppolzer on, 10
Ankle, excision of, Mr. H. Lee on a case of, 197
Annesley, Surgeon-Major J. C. death of, 200
Anstie, Dr. on sciatica and its treatment, 581, 637
Anus, fissure of the, liniment for, 634
Aorta, aneurism of the, specimens of, 251
as a result of rheumatism, Dr. Powell's cases of, 85
double aneurism of the thoracic, specimen of, 708
rupture of the internal coats of the, specimen of, 606
Apollinaris water, 170
Apothecaries' Hall (Ireland) and the Pharmacy Bill, 431, 488
pass-lists of, 549
Apothecaries' Society of London, pass-lists of, 58, 86, 115, 169, 225, 280, 307, 335, 361, 388, 415, 442, 468, 494, 521, 549, 607, 633, 661, 688, 705
proposed amendment of the Act of the, 481
in relation to the Scottish universities, 615
in relation to general practitioners, Mr. Fairmann on the, 702
Applin, Mr. George Peek, death of, 28
Arcachon, The Climate of, Dr. Hameau, review, 194
Arm, tearing off of the entire, 15
Army, movement and conveying of the, in the tropics, 237
recruiting of the, *vide* Recruiting
midwives class, working of the, 483
statistics of suicide in the, 569
Army Medical Department, successful candidates for the, 218, 275
examination papers for the, 227
the new Government and the Warrant of the, 290
question of the Director-Generalship of the, 322, 376
proposed improvements in the, 507
circular from the, on precautions against infection, 566
the Indian, successful candidates for the, 216, 275
examination papers for the, 227
Arnold, Dr. L. on diapedesis, 321
Surgeon-Major Richard, death of, 468
Arnott, Dr. Neil, death of, 280
Arsenic, poisoning from, by wall-papers, case of, 53
by quack-pills, 75
conviction for, 294
Arteries, effects of catgut ligature on, 703
Arthritis after rheumatism, case of, 423
Ashantee war, notes and reports of the progress of the, 11, 41, 73, 101, 129, 130, 182, 214, 240, 271, 293, 319, 343
difficulties of transport during the, 154
letters from the seat of the, 159, 184, 218, 241, 293, 296, 324, 351, 380, 434
honours conferred upon the medical officers of the, 377, 403
non-recognition of services of medical officers of the, 649
reports on the sick and wounded from the, 405, 434, 458, 506
the invalids from the, 677
the *Victor Emmanuel* hospital-ship, return of, from the, 429, 485
treatment of wounded officers on board, 569
Admiral Ryder's account of, 620
Ascites, Dr. H. Thompson on a case of, 31
Dr. Stewart on a case of, 121
Aspirator, employment of the, *vide* Paracentesis thoracis
Assistants and principals, relations of, 170
Association, the St. Andrews Medical Graduates', annual meeting of the, 41
Association of Medical Officers of Health, *vide* Medical officers
the French Medical, report of the, 484
of Poor-law Medical Officers, meeting of the, 241
annual meeting of the, 408
petition of the, 453
vide Poor-law
Asthma, nature and treatment of, Dr. Thorowgood on the, 63
in relation to skin disease, Mr. Gaskoin on, 359
Ataxia with imbecility, Dr. Shaw on, 42
Atcheen, the Dutch expedition to, 348
Atchison, Surgeon-Major, death of, 706
Athetosis, Dr. Shaw's views on, 42
Atrophy, progressive muscular, Dr. Eichorst on, 623
Atropia, hypodermic use of, in poisoning by opium, case of, 192
Aufrecht, Dr. on hypodermic injection of carbolic acid in erysipelas, 355

B

Bailey, Mr. Henry Woodruffe, death of, 28
Baker, Mr. Alfred, requisition to, as a candidate for a seat on the College Council, 491
Balloons, effects of breathing oxygen during ascents of, 405, 483
Ballot, Dr. on the cholera in Holland, 188, 191
Bandage, silicated, Mr. Wagstaffe on the, 263
Bardinet, M. on cases of syphilis communicated by a midwife, 459
Barker, Dr. Fordyce, Puerperal Diseases, review, 628
Mr. William Searle, death of, 494
Barnett, Mr. Henry, death of, 58
Barry, Mr. James Joseph, death of, 169
Barwell, Mr. on septic disease, 631
Bassett, Dr. on iron as a preventive of uterine hæmorrhage, 605
Bateman, Dr. lecture of, on Darwinism, 550
Bath, Mr. Milton's Modified Turkish, review, 629
Baths, the floating, on the Thames, 536
Battishill, Mr. John, death of, 280
Beale, Dr. on resident medical officers at King's College Hospital, 490, 543
Beaman, Dr. George, obituary notice of, 142
Beatson, Surgeon-General, obituary notice of, 661
Beechey, Mr. Frederick, death of, 662
Beef, Brand's essence of, 704
Beer, poisoning by colchicum in, 539
Begg, Mr. John R., death of, 522
Behier, Professor, on transfusion in anæmia, 330
Belford Hospital, Fort William, reports of cases treated at, 126, 288, 586
Bell, Dr. Charles, and the Maternity Hospital, 383
Bengal, report on the Lock hospitals of, 245
Bentley, Professor, on eucalyptus globulus, 539
Benzoic acid for ammoniacal urine, 163
Bernard, Professor Claude, anecdote of, 523
Bert, M. Paul, on breathing rarefied air, 405
Besley, Mr. Francis Bernard, death of, 58
Besnier, Dr. reports on the mortality of Paris, 1873-74, 247, 599
Binz, Professor, on the action of bromide of potassium, 185
Birbaum, Dr. on the sclerema of infants, 44
Bile-ducts, Prof. Kupffer on the origin of the, 186
Bird, Dr. Frederic, obituary notice of, 519
Mr. James, obituary notice of, 661
Birmingham, letters from, 51, 308, 601
sanitary state of, in 1873, 214, 537
prevalence of small-pox in, Mr. Haviland on the, 678
General Hospital, reports of cases treated at the, 590

Digitized by Google

Births, multiple, M. Puech on, 220
Blackie, Professor, on Self-Culture, review, 83
Bladder, ectopia of the, Mr. Wood's cases of, 197
sarcomatous growths of the, specimen of, 602
Blakiston, Dr. clinical reminiscences, 45, 81, 106, 160
Blane medals, award of the, 76
Bleeding as formerly employed, Dr. Blakiston on, 46
Blennerhassett, Dr. Edward, death of, 388
Blood-cyst of the hand, Mr. Haward on a case of, 414
Blood-poisoning in endocarditis, Dr. Gray's cases of, 474
Bloodless surgery, observations on, 8
Mr. Erichsen on, 52
Mr. Mac Cormac on, 84, 165
Prof. v. Langenbeck on, 105
Prof. Spence on, 111
discussion on, at Berlin, 591
Prof. Esmarch on, 664
Bloodvessels, passage of corpuscles through the, Dr. Arnold on the, 321
Bombay, the dispensaries of, 103
Boils, arsenic in, 389
Books, reviews and notices of, *vide* Reviews
Böttern, Dr. case of poisoning by colchicin in beer, 539
Bouchard, M. on the action of valerian in diabetes, 568
Bouchardat, Professor, on the hygiene of hospitals, 133, 160, 190
Bouchut, Professor, on a sign of death, 312
on the lesions and treatment of diphtheria, 656
Bradley, Mr. Messenger, propositions on the classification of syphilis, 612
dismissal of, from Owens College, Manchester, 677
Braidwood, Dr. Domestic Management of Children, review, 543
Brain, localised functions of the, Dr. Hitzig on the, 104, 680
Professor Nothnagel on the, 237
tumours of the, Dr. Jackson on, 6, 96, 151, 234
secondary sarcomatous tumour of the, case of, 585
Dr. Ramskill on a case of tumour of the, 556
Dr. Russell on a cancerous tumour of the, 530
atrophy of the, Dr. H. Jones on a case of, 371
concussion of the, followed by diabetes, case of, 679
softening of the, from ligature of the carotids, Dr. Russell on, 285, 368, 391, 447, 473
Brandt, Professor, case of extirpation of the kidney, 105
Braun, Dr. on the secretion of gastric juice, 621
Breast, cancer of the, Mr. Heath's clinical lecture on, 147
scirrhus of the male, specimen of, 54
successive adenoid tumours of the, case of, 344
recurrent tumour of the, case of, 492
Bright's disease, etiology of, Mr. Mahomed on the, 492
the sphygmograph in the early stages of, 431
chronic, case of, 288
with fatal hæmorrhage, case of, 126
with hæmorrhage into the pons Varolii, 448
Dr. Sibson on the influences of, 487, 512, 538
Bristol Royal Infirmary, reports of cases treated at the, 344
Bromide of calcium in syphilitic neuralgia, 132
of potassium, Dr. Binz on the action of, 185
in albuminuric convulsions, 329
discussion on the therapeutical properties of, 598
Bronchial glands, enlargement of the, in relation to phthisis, 656
Bronchocele, cystic, Dr. Mackenzie on the treatment of, 548
Brouardel, M. on erysipelas of the pharynx, 135
on the treatment of syphilis, 543
Brown, Mr. Henry, death of, 362
Browne, Mr. W. A. F. Stories about Idiots, review, 21
Bryce, Dr. Charles, death of, 442
Buckell, Dr. on remuneration of medical men by the police, 707
Buckingham, Dr. on discrepancies in medical thermometry, 300
Bucknill and Tuke, Drs. Manual of Psychology, review, 702
Bucquoy, Dr. on paracentesis in recent pleural effusion, 438
Buez, Dr. on the Mecca pilgrimage of 1874, 574
Bullock and Reynolds, Messrs. on Corbyn's inhaler, 546
Burn of an anæsthetic finger, 397
Burns, treatment of, by white paint, 607
Butter, adulteration of, Dr. Tidy on, 194
Buzzard, Dr. on a case of general paralysis from syphilis, 413
Clinical Aspect of Syphilitic Nervous Affections, review, 542
Byles, Mr. James Cotton, death of, 607

C

Calculus, urinary, in the female, Mr. Heath on, 391
Callender, Mr. on cases of neuralgia, 491
on the effects of catgut ligatures on arteries, 708
Cambridge University, scholarships and examinations in natural science at, 88
pass-lists of the, 279
Cameron, Dr. Robert, death of, 668
Cancer, Mr. De Morgan's propositions concerning, 241
Mr. De Morgan's address on, 257
discussion on, at the Pathological Society, 269, 278, 318, 334, 350, 400, 430, 450, 479, 515
Dr. Payne on the nature of, 408
Mr. Stokes on, 495
in relation to diseases of the skin, Mr. Gaskoin on, 528
of the breast, Mr. Heath's clinical lecture on, 147
in the male, specimen of, 54
of the brain, Dr. Russell on a case of, 530
of the stomach, treated by condurango, Professor Friedreich on a case of, 186
of the ovary, specimen of secondary, 252
of the colon, Mrs. Anderson's case of, 547
of the liver, case of, 556
of the liver and supra-renal capsules, Dr. H. Thompson on, 31
Candles, "pulmonic," 85
Canstatt, Mr. N. G. death of, 169
Carbolic acid, poisoning by, cases of, 679
in diabetes, Drs. Elstein and Müller on, 88
parenchymatous injection of, as an antiphlogistic, Professor Hueter on the, 246
injection of, in erysipelas, Dr. Aufrecht on, 355
Carotid, the external, ligature of, in aneurism by anastomosis, 500
Carotid arteries, ligature of the, hemiplegia and softening of the brain after, Dr. Russell on, 285, 368, 392, 446, 473
Carpenter, Dr. Alfred, on the ventilation of sewers, 461
Carson, Dr. on a case of phlegmasia dolens, 501
Carter, Mr. R. B. case of sarcoma of the iris, 26
case of sarcoma of the orbit treated by the cautery, 84
on abscission of the eyeball, 411
Caryl, Mr. William A. death of, 362
Caskie, Mr. John, death of, 200
Cataract, Dr. De Wecker's operations for, 638
infantile, case of, 502
senile, Mr. Watson on the operation for, 499
Cauty, Mr., Diseases of the Skin, review, 221
Cayley, Dr. on a case of hæmoptysis, 513
Centenarians, living, the vocal organs of, Sir D. Gibb on the, 669
Cerebro-spinal meningitis (basic), Dr. Dowse on, 124, 150
Chancre, epidermic grafting in, 672
Charing-cross Hospital, reports of cases treated at, 126, 585
Fifty-third Report of the, review, 628
Medical School, distribution of prizes at the, 655, 662
Charlton, Dr. Edward (of Newcastle), obituary notice of, 633
Staff-Surgeon Dr. John Fitzgerald, death of, 706
Chemistry, The New, Professor Cooke's, review, 575
Chest, penetrating wound of the, case of, 501
Chesterfield, unsanitary condition of, 75
Chilblains, application for, 331
Children, North-Eastern Hospital for, cases treated at the, 644, 671, 695
Children, mortality of, Dr. Gairdner on the, 349
mortality of, in Massachusetts, 100
peculiar disease of the skin of, Dr. Uffelmann on a, 76
defective diet of, in the Paris hospitals, discussion on the, 219, 274
mode of carrying, in Japan, 281
oatmeal as food for young, 443
acute general tuberculosis in, Dr. Eustace Smith on, 445, 471, 498, 554
employment of the pneumatic aspirator in, 644, 671
gangrene of the lung in, Dr. Hayes on, 177, 207
diabetes in, 43
sclerema of, Dr. Bierbaum on the, 44
Domestic Management of, Dr. Braidwood on the, review, 543
Chinery, Dr. Edward, death of, 415
Chloral, as a preservative agent, 193
therapeutical power of, Dr. Pollock on the, 409
venous injection of, Professor Ore's case of, 574
Chloroform, Dr. Heiberg on a new mode of administering, 36
sudden death in relation to, 163
fatal syncope during administration of, Mr. Clover on a case of, 693
Cholera, statistics of, in Prussia, in 1873, 33
epidemic of, at Munich, 452
Cholera, Dr. Pettenkofer on the outbreak of, at Munich, 562, 568
statistics of, in Vienna, in 1873, 163
in Holland in 1873, Dr. Ballot on, 188, 191
epidemic of, in 1872, in India, Dr. Cunningham on the, 49
Dr. Murray's criticisms on, 166
recent experience in, in India, Dr. Cunningham on, 411, 427
in England and India, discussion on, 436
in the North-West Provinces of India, Drs. Hennessey and Maclaren on, 294
question of quarantine in, Dr. Milroy on the, 295
non-contagiousness of, Dr. Flint on the logical proof of the, 437
questions for the Vienna Congress on, 561
observations on the projected international conference on, 616
Choroid, tuberculosis of the, specimen of, 214
Chyluria, cases of, 37
Cinchona, cultivation of, in India, 427
Cirrhosis of the liver with heart disease, Dr. H. Thompson's case of, 556
Clark, Mr. Le Gros, on the quarrel between Guy's and St. Thomas's, 84
Clarke, Mr. J. F. autobiographical recollections of the profession, 16
Dr. Lockhart, on pseudo-hypertrophic muscular paralysis, 617
Mr. Fairlie on ichthyosis linguæ, 331
Dr. John, and Sir Charles Mansfield, 337
Mr. Joseph, death of, 607
Cleland, Professor, Animal Physiology, review, 575
Clinical Society, reports of meetings of the, 25, 84, 127, 140, 212, 250, 268, 316, 332, 413, 491, 547, 630
Clinical lectures, Dr. Rutherford's early, at Edinburgh, 591
Clover, Mr. on a case of fatal syncope during administration of chloroform, 693
Coal, loss of, by exposure to the air, 226
Cobbold, Dr. on strongylus in grouse disease, 16
Cod-liver oil emulsion, 560
tasteless, 579
Colchicin, in beer, poisoning by, case of, 539
poisoning by the vinum seminis of, Dr. Major on cases of, 275
Cold, Dr. Richardson's mode of applying, in pyrexia, 312
Collet, Dr. Henry James, death of, 28
Collieries of Durham, Mr. Rawlings' report on the, 55
Collins, Dr. on accessory lobes of the lungs, 432
Colon, cancer of the transverse, case of, 547
Colotomy, cases of, Mr. Heath on, 283
Condurango in cancer, Professor Friedreich on, 186
Conium, succus of, Dr. Harley on the, 197
Conjoint scheme, *vide* Examinations
Conjunctival grafting, M. de Wecker on, 656
Consumption, Hospital for, at Ventnor, description of the, 47
Convulsions, albuminuric, bromide of potassium in, 329
Cooke, Professor, The New Chemistry, review, 575
Coomassie, the expedition against, 319
vide Ashantee war
Copaiba resin, diuretic action of, 501
Cope, Mr. Joseph Staines, death of, 280
Copeman, Dr. on results of consultation midwifery practice, 604
Corbyn, Messrs. on their inhaler, 576
Corfield, Dr. on the alleged spontaneous development of enteric fever, 547
on the etiology and prevention of enteric fever, 606
Cornea, intractable ulceration of, Mr. Vernon's case of, 557
Coryza, inhalation of camphor in, 331
Coughtrey, Dr. unjust prosecution of, 498
Couzan and St. Galmier, mineral waters of, 535
Cowie, Dr. Robert (of Lerwick), obituary notice of, 577
Cremation, the question of, 181, 209
in Madras, 510
Surgeon-Major Logie on, 546
Cretin, absence of thyroid gland in a, 603
Cripps, Mr. on a case of palmar aneurism, 630
Crocq, Professor, on parotiditis as a sequence of acute disease, 512
Croton oil seeds, poisoning by, 272
Crowther, Mr. William, death of, 388
Cruveilhier, Professor, obituary notice of, 296, 338
Cunningham, Dr. J. M. on the cholera of 1872 in India, 49
Dr. Murray on the report of, 166
on recent experience of cholera in India, 411, 427
Czerny and Latschenberger, Drs. on the digestive and absorbing power of the intestinal canal, 291

D

Dalby, Dr., Lectures on Diseases of the Ear, review, 358
Dalton, Dr. H. G. death of, 362
Darwinism, Dr. Bateman's lecture on, 559

Digitized by Google

Daunt, Dr. contribution of, to "Notes and Queries," 29
Davies, Deputy Inspector-General Dr. Edward, death of, 161
Davis, Mr. James, death of, 362
Davy, Mr. on the open treatment of wounds, 385
note on a case of gluteal aneurism, 686
Day, Dr. John, on the properties and action of fat, 306
Dean, Mr. on a case of superfœtation, 551
Death, signs of, the Ourches prizes for, 15
M. Bouchut on a new sign of, 312
prize essays on the signs of, 356
Deformities from rickets, Mr. Marsh on the treatment of, 224
De la Motte, Mr. Henry Digby Cotes, death of, 225
Delirium tremens, large doses of digitalis in, 88
case of, with pneumonia, Dr. H. Thompson on a, 476
De Morgan, Mr. Campbell, propositions of, concerning cancer, 241
address of, on cancer, 257
Dengue, early epidemics of, 281
Dental Hospital, celebration of the opening of the new, 390
description of the, 489
Desprès, Dr. on the treatment of syphilis, 543
Diabetes in children, 43
carbolic acid in, Drs. Ebstein and Müller on, 38
after concussion of the brain, case of, 679
insipidus, action of valerian in, Dr. Bouchard on the, 569
Diapedesis, Professor Arnold on, 321
Dickson, Dr. John Thompson, obituary notice of, 86
Dietaries, scientific, observations on, 71
of schools for the upper classes, 97
Dr. Gray on, 194
Dillon, Dr. W. E. obituary notice of, 440
Dionæa muscipula, Dr. Sanderson on, 681
Diphtheria, pulmonary lesions in, and treatment of, Professor Bouchut on, 656
lemon-juice in, 706
Disease, treatment of, Dr. Blakiston on the, 45, 81, 106, 160
Disinfectants, Major Synge on, 272
Dislocation of the first and second pieces of the sternum, 114
Dobell, Dr. analysis of cases of hæmoptysis, 576
Doctor, penalty for assuming the title of, 620
in absentiâ, diplomas obtained for, 649
Dodson, Dr. Andrew (of Birmingham), obituary notice of, 307
Dolbeau, Professor, on the induction of anæsthesia during sleep, 220
Dougall, Dr. treatment of leprosy by gurjun oil, 663
Dowse, Dr. on basic cerebro-spinal meningitis, 124, 150
Drasche, Dr. on ergotine as a hæmostatic, 537
Driggs, Mr. H. R. death of, 521
Druitt, Dr. note concerning the late Dr. Webb, 111
Drunkenness, Canon Kingsley on, 272
Dublin, letters from, 276, 600, 660
registration returns of, for 1873, 277, 698
Corporation, waterworks and sewerage of, 242, 276, 405
disgraceful state of the Liffey in, 698
fifteenth report on the hospitals of, 378
University, pass-lists of, 225, 705
Duckworth, Dr. on a case of leprosy, 703
Dudfield, Dr. on the London slaughter-houses, 463
Duhring, Dr. on a case of painful neuroma, 185
on pruritus hiemalis, 409
Dun, Mr. Finlay, Veterinary Medicines, review, 513
Durham, colliery district of, Mr. Rawlings on the, 55
Dwellings of the poor, memorial of the College of Physicians concerning, 379
observations on the, 399
debate in Parliament on the, 532
Dysentery, "Mucor" on the Theory of, review, 276
at the Gold Coast, cases of, 390, 434, 458
treatment of, by ipecacuanha at Madras, 407
Dyspepsia, Professor Leube on the causes and treatment of, 504
acute, in a dog, 579

E

Ear, Lectures on Diseases of the, Dr. Dalby's, review, 358
Ebbage, Mr. Thomas, death of, 336
Ebstein and Müller, Drs. on carbolic acid in diabetes, 38
Edinburgh, letters from, 383, 521
the Maternity Hospital of, and Dr. C. Bell, 383
Edinburgh University, proposed foundation of degrees in public health at the, 522
the scheme for the extension of the, 400, 407
proposed degrees in public health at the, 695
action in London relating to, 433
Edinburgh University, Dr. Rutherford's early clinical lectures in, 591
Club, dinner of the, 567
the medical-women question at, 295
petition concerning the, 565
the Lord Advocate on the, 567
vide Women
Edis, Dr. on caution in using intra-uterine stems, 139
Education, medical, in relation to the "conjoint scheme," 211
Professor Huxley's views on, 268
Egan, Dr. cases of pelvic hæmatocele, 66
on the prophylaxis of post-partum hæmorrhage, 230
Egyptians, the ancient, "Viator" on, 551
Eichorst, Dr. on progressive muscular atrophy, 623
Elastic ligature, Mr. Erichsen on the, 52
Dr. Hollis's substitute for, 568
vide Bloodless surgery
Elephantiasis, of the scrotum, at Madras, 486
of the leg, case of, 532
Ellis, Rev. S. on native medicine in the South Sea Islands, 50
Elliot, Dr. William Henry, death of, 87
Embolism of the common iliacs, gangrene from, case of, 525
Emigration medical officers, unjust prosecution of, 428
Endocarditis with blood-poisoning, Dr. Gray on cases of, 474
Enteric fever, *vide* Typhoid
Epidemics, Dr. Pearse's illustrations of, 64, 94
errors in the investigation of, Inspector-General Lawson on the, 462
inductive investigation of, Dr. Parkin on the, 546
Epidemiological Society, reports of meetings of the, 166, 385, 462, 546
Epilepsy, albuminuria as a symptom of, Dr. Huppert on, 567
infantile, syphilitic, case of, 398
Epileptic and Paralysed, reports of cases treated at the Hospital for the, 6, 96
Epileptic furor, successful plea of, 361
Epithelioma, cases of, 423
Epps, Dr. George N. death of, 633
Erasmus, letter of, on the non-sanitary condition of England, 593
Ergot, injection of, in uterine fibroid, 191
Ergotine as a hæmostatic, 537
Erichsen, Mr. on bloodless operations, 52
Erysipelas, idiopathic, of the face, case of, 586
hypodermic injection of carbolic acid in, Dr. Aufrecht on, 355
camphor as an application in, 693
of the pharynx, M. Brouardel on, 135
Esmarch, Professor, on his bloodless method, 685
vide Bloodless surgery
Eucalyptus globulus, Professor Bentley on, 539
Eustachius, Bartholomæus, Professor Virchow on a statue for, 541
Ewald, Dr. new method of producing glycosuria, 103
Examinations, conjoint scheme of, in relation to medical education, 211
and preliminary education, 551
for Ireland, opposition to the, 349
Excision, of the ankle, Mr. H. Lee on a case of, 197
of the knee-joint, Mr. Heath on a case of, 61
of the hip-joint, cases of, 615
Experts, medical, the *Law Magazine* on, 562
Eye, diseases of the, Dr. De Wecker's clinique of, in 1873, 656
foreign bodies lodged within the, Mr. Jeaffreson on, 340
Eyeball, abscission of the, Mr. Carter on, 411

F

Factory medical supervision, observations on, 425
Fagge, Dr. on specimens of fibroid degeneration of the heart, 686
Fairmann, Mr. on the relation of the Apothecaries' Society to general practitioners, 702
Fat, properties and physiological action of, Dr. Day on the, 306
Fayrer, Dr. on malarial splenic cachexia, 2
on the ammonia treatment of snake-bite, 601
Fees, question of a revision of, 69
proposed new tariff of, at Lyons, 77
Feet, fetor of the, lotion for, 159
Femur, ununited fracture of the, Mr. Butlin on a specimen of, 196
Fereday, Mr. Samuel Day, obituary notice of, 520
Fernie, Mr. Andrew, death of, 662
Ferrier, Dr. experiments of, Dr. Hitzig on the, 104
Ferris, Mr. George Thomas, death of, 688
Fieber, Dr. *Entfernung von Kehlkopfgeschwülsten*, review, 599
Fish, a live, in the throat, 486
Flint, Dr. on the non-contagiousness of cholera, 437
Flogging young ladies, a "Country Physician" on, 337, 364
Mrs. Stanley on, 365
Flogging young ladies, "A Medical Student" on, 389
Mrs. McGregor on, 389
"A Physician's Daughter" on, 389
"T. E. A." on, 417
Fœtus, crying of a premature, 465
Folkstone, sanitary condition of, Dr. Lewis on the, 689
Forster, Mr. Cooper, notes on cases of, 423
Mr. John, on the plantaris muscle, 170
Foster, Dr. Balthazar, clinical lectures of, 525, 553
Fox, Surgeon-Major Alexander, death of, 550
Dr. Charles James, obituary notice of, 577
Fracture, of the humerus, case of ununited, 502
of the olecranon, case of, 532
of the spine, Mr. Hulke on cases of, 173, 229
of the skull, Mr. Forster's cases of, 531
compound, of the skull, Mr. Heath on a case of, 203
France, census of, in 1872, 382
the law of the sale of medical practices in, 44
accidental poisoning in, trial for, 134
action for a midwifery fee in, 165
the proposed new Medical Faculties in, 254
vide Paris
Frontal sinuses, gunshot wound of the, case of 443

G

Gairdner, Professor, on infant mortality, 349
Gaisford, Mr. Thomas, death of, 522
Galabin, Dr. on dicrotism of the pulse, 24
reply of Dr. Mahomed to, 137
rejoinder of, 223
Galvanic stem, Mr. Tait on the, 443
Gangrene from embolism of the common iliacs, case of, 525
of the lung in children, Dr. Hayes on, 177, 207
Gaskoin, Mr. on lepra græcorum, 206
on asthma in relation to skin disease, 359
on the relations of cancer to diseases of the skin, 528
Gastric juice, Dr. Braun on the secretion of, 621
Gayton, Dr. report of, on small-pox at Homerton Hospital, 590, 707
Geere, Mr. George, death of, 633
George's (St.) Hospital, the "memorial" on the out-patient system of, 480
Gibb, Surgeon-General Hugh, death of, 28
Sir Duncan, on the vocal organs in living centenarians, 669
Gibson, Mr. Charles Mends, death of, 116
Glands, cervical, perforation of the trachea by caseous, Dr. Thompson on, 91
Glycosuria, Dr. Ewald on a new method of producing, 103
Goître, epidemic of, at St. Etienne, M. Michaud on an, 219
Gold Coast, letters from the seat of war on the, *vide* Ashantee
Gonorrhœa, chloral as an injection in, 15
Goude, Mr. John Fisher, death of, 28
Gout, relation of uric acid to, Dr. Ord on the, 233
Gowers, Dr. on the influence of posture on cardiac murmurs, 349
Gowland, Mr. on cases of villous tumour of the rectum, 198
Grant Medical College, report on the, 320
Gray, Dr. E. B. on school dietaries, 195
cases of endocarditis with blood-poisoning, 474
Greifswald, University of, account of the, 243
University Hospital of, account of the, 571
Green, Dr. Thomas, death of, 87
Dr. Orne, on mastoid inflammation, 302
Grimshaw, Dr. on sanitary legislation for Ireland, 482
Grouse disease, strongylus as a cause of, 140, 199
Guérin, M. Alphonse, on the action of ferments in surgical affections, 659
Guinea-worm, account of the, 17
at Rajpootana, 699
Guy's Hospital, reports of cases treated at, 265, 343, 423, 476, 501, 531, 615
Guy's and St. Thomas's Hospitals, Mr. J. F. Clarke on the separation of the schools of, 16, 112
Mr. Le Gros Clark on the, 84

H

Hæmatocele, pelvic, Dr. Egan on cases of, 66
Hæmoptysis, Dr. Cayley on a case of, 413
Dr. Dobell's analysis of cases of, 576
in a child, case of, 703
Hæmorrhage, treatment of, by flexion, Dr. Adelmann on, 273
post-partum, Dr. Egan on the prophylaxis of, 230
iron as a preventive of, Dr. Bassett on, 605
Hæmorrhagic diathesis, Mr. Higgen's cases of, 631
Hairy folk, the Russian, account of the, 245
Halford, Professor, on the treatment of snake-poisoning, 53
Hameau, Dr. the Climate of Arcachon, review, 194
Hamilton, Professor, on the employment of warm water in surgery, 701
Hanslip, Mr. Thomas, death of, 522

Digitized by Google

Harris, Mr. Herbert Robey, death of, 143
Mr. George, Tests of Supernatural Phenomena, review, 575
Hart, Mr. Ernest, Manual of Public Health, review, 330
Harvey, William, epitaph of, 256
Haward, Mr. case of blood-cyst of the hand, 414
case of recurrent tumour of the breast, 492
Hayes, Dr. on gangrene of the lung in children, 177, 206
Hayward, Dr. Sydney, death of, 415
Headache, neurosal, Dr. Handfield Jones on cases of, 123, 149, 175, 205
Health, Society of Medical Officers of, *vide* Medical
Health (Public) Mr. Hart's Manual of, review, 330
Dr. Poore's introductory lecture on, 592, 625
projected degrees in, at Edinburgh, 696
Bill for Ireland, suggestions concerning the, 564, 600
action in Dublin on the, 660
Heart, Bright's disease in relation to the, Dr. Sibson on, 487
hypertrophy of the, with mitral stenosis, Dr. Sansom on a case of, 34
specimen of, 54
effect of posture on presystolic murmurs of the, 349
fibroid degeneration of the, specimen of, 666
wound of the, case of, 443
Heath, Mr. on a case of gunshot injury, 1
on a case of excision of the knee, 61
on cases of cancer of the breast, 147
on a case of compound fracture of the skull, 208
on cases of colotomy, 283
on calculus in the female, 391
Hebra and Kaposi, Professors, *Hautkrankheiten*, review, 686
Heeney, Dr. Francis Xavier (of Queensland), obituary notice of, 57
Heiberg, Dr. on administering chloroform, 36
Heitzmann, Dr. on the artificial production of rickets, 98
Hemiplegia, spinal, Dr. Greenhow's case of, 96
after ligature of the carotid, Dr. Russell on, 286, 368, 392, 446, 473
Hennessey and Maclaren, Drs. on cholera in the North-West Provinces of India, 224
Hernia, strangulated, Mr. Hulke on cases of, 367
early operations for, Mr. Forster on, 424
umbilical, cancer of the omentum mistaken for, 423
Herrick, Dr. George, death of, 442
Hewett, Mr. Prescott, on pyæmia in private practice, 119
Higgens, Mr. cases of hæmorrhagic diathesis, 631
Hip-joint, excision of the, cases of, 614
Hitzig, Dr. on Dr. Ferrier's experiments, 104
Untersuchungen über das Gehirn, review, 680
Hogg, Surgeon-Major, recreations of a medical practitioner, 447
Holland, proposed Factory Act for, 545
Hollis, Dr. the sarcotome of, 568
Holmes, Professor, on the surgical treatment of aneurism, 640, 691
Homœopathic medicines, Dr. Lewis on so-called, 26
Hope, Mr. Beresford, distribution of prizes by, at the Charing-cross Hospital, 656
Horseflesh, consumption of, in Paris, 687
Hospital Practice in Medicine and Surgery, reports of, 6, 36, 67, 96, 126, 151, 179, 207, 234, 265, 288, 315, 343, 371, 397, 423, 448, 475, 501, 530, 558, 585, 614, 644, 671
Hospital committees characterised, 210
Hospital out-patient system, *vide* Out-patients
Hospital Saturday, observations on the project of a, 130, 290, 402, 430, 492
Hospital Sunday, in Liverpool, 165
in London, of 1874, 677
Hospital, the Belford, at Fort William, reports of cases treated at the, 126, 288, 586
Birmingham General, report of cases treated at the, 530
Bristol (Royal Infirmary), report of cases treated at the, 344
Charing-cross, reports of cases treated at, 126, 585
Fifty-third Report of the, review, 628
for Children (The North-Eastern), report of cases treated at the, 644, 671, 695
for Consumption, at Ventnor, description of the, 47
Dental, opening of, and description of the new, 320, 489
for the Epileptic and Paralysed, reports of cases treated at the, 6, 96
Greifswald University, account of the, 571
Guy's, reports of cases treated at, 265, 343, 423, 476, 501, 531, 615
Guy's and St. Thomas's, separation of the Schools of, 16, 84, 112
of the Kiel University, account of the, 108
King's College, report of cases treated at, 179
disputes at, *vide* King's College
Liverpool (Royal Infirmary), report of cases treated at the, 501
Hospital, London, reports of cases treated at the, 96, 151, 234, 556
Madras (General Hospital), reports of cases treated at the, 37, 486
Madras (Dispensary), reports of cases treated at the, 208, 265, 556
Middlesex, reports of cases treated at the, 96, 448, 476, 614
for Diseases of the Nervous System, report of cases treated at the, 598
St. George's, the "memorial" on the out-patients of, 480
St. Mary's, reports of cases treated at, 208, 315, 371, 448
St. Peter's, reports of cases treated at, 179, 424
St. Thomas's, reports of cases treated at, 7, 36, 207, 475, 645, 672
Seamen's, Greenwich, reports of cases treated at the, 67
Small-pox, at Homerton, Mr. Gayton's report on the, 590
South Hants (Infirmary), reports of cases treated at the, 508
University College, report of cases treated at, 397
for Women, *vide* Women
Hospitals, the Dublin, fifteenth report on the, 578
the hygiene of, Professor Bouchardat on the, 133, 161, 190
mortality of, discussion on the, 631
punctuality of medical officers of, 346
defective diet of children in the French, 219, 274
Howard medal, institution of the, by the Statistical Society, 13
Hueter, Professor, on the parenchymatic injection of carbolic acid, 246
Hulke, Mr. on cases of fracture of the spine, 173, 229
on cases of strangulated hernia, 367
Humerus, ununited fracture of the, case of, 502
Hunter, John, and Leicester-square, 238
Hunterian Society, report of meeting of the, 79
Huppert, Dr. on albuminuria as a symptom in epilepsy, 567
Hutchinson, Mr. on mercury in syphilis, 79
Huxley, Professor, address of, at Aberdeen, 208
Hydatid tumour of the abdomen, Dr. H. Jones on cases of, 420
Hydrocele, complete transparency in, 541
alcoholic treatment of, 544
Hydrocephalus, acute, Dr. E. Smith on, 554
Hyperidrosis, hereditary local, case of, 627

I

Ichthyosis linguæ, Mr. Fairlie Clarke on, 331
India, Army Medical Department, *vide* Army
splenic cachexia in, Dr. Fayrer on, 2
"Indian Experience," 368
Infant, hæmoptysis in an, case of, 703
Infants, *vide* Children
Infectious diseases, army circular concerning, 566
Inflammation, Bright's disease in relation to, Dr. Sibson on, 487
parenchymatic injection of carbolic acid in, Professor Hueter on the, 246
Inglis, Dr. Thomas, death of, 362
Inhaler, Mr. Lennox Browne's improved, 519
Messrs. Bullock and Reynolds' criticism of, 546
Messrs. Corbyn on the, 576
Inhumation or cremation, 181, 209
Insanity, clinical instruction in, at Hanwell, 323
prohibition of, in Paris, 329
recovery from, Dr. Yellowlees on, 432
successful plea of, 361
statistics of, in Paris, for 1873, 460
Intermittent fever, hypodermic injection of quinine in, Dr. Lente on the, 573
Intestinal canal, digestive and absorbing power of the, Drs. Czerny and Latschenberger on the, 291
obstruction of the, Mr. Wagstaffe on, 454, 475
introduction of fluid into the, by gravitation, 14
perforation of the, specimen of, 608
Intestinal sand, M. Laboulbène on, 43
Intracranial tumour, Dr. Jackson on cases of, 6, 96, 151, 234
Dr. Russell on a cancerous, 530
Intra-uterine stems, Dr. Edis on caution in using, 139
Invalides, Hôtel des, present state of the, 502
Iodide of potassium in syphilis, observations on, 151
Iodine, mode of action of, Professor Sée on the, 174, 419
Ireland, registration reports for, 12, 368
sanitary legislation for, Dr. Grimshaw on, 492
Public Health Bill, suggestions concerning the, 564, 600
vide Dublin
Iridectomy, Dr. De Wecker's cases of, 656, 689
Iris, sarcoma of the, Mr. Carter on a case of, 26
Iron, administration of, in pregnancy, 605
Irving, Dr. John, death of, 28

J

Jackman, Mr. appeal of, 368
Jackson, Dr. Hughlings, on cases of intracranial tumour, 6, 96, 151, 234
Jagoe, Mr. John, death of, 442
James, Dr. Prosser, Lessons in Laryngoscopy, review, 194
Japan, mode of carrying infants in, 261
Jeaffreson, Mr. on foreign bodies in the eye, 340
Joints, terminations of nerves in, Dr. Nicoladoni on the, 157
diseased, treated by extension, Dr. Reyher on, 128
treated by massage, by Dr. Mezger, 301
Jones, Dr. Handfield, cases of neurosal headache, 123, 149, 175, 205
on a case of pyæmia, 288
cases of typhoid fever, 315
case of atrophy of the brain with hemiplegia, 371
on cases of hydatid tumour in the abdomen, 420
on cases of hæmorrhage into the pons Varolii, 449
Dr. Joseph, observations on yellow fever, 5, 33
Joulin, Dr. obituary notice of, 334
Jürgensen, Professor, on typhoid fever, 198

K

Keal, Dr. William Tomblin, death of, 415
Keenlyside, Dr. Richard Headlam, death of, 415
Kellock, Mr. William, death of, 200
Kelly, Surgeon-Major, obituary notice of, 530
Mr. Henry Joseph, death of, 706
Kensington Board of Guardians and illegal lunatics, 648
Kent, Mr. Jackson Goodenough, death of, 87
Keratitis, neuro-paralytic, Mr. Watson on a case of, 176
Kidd, Dr. Charles, death of, 253
Kidney, extirpation of the, Professor Brandt's case of, 105
Professor Simon's case of, 653
Kiel, the University of, account of the, 18
erratum regarding, 171
the Hospital of, account of the, 108
Kilgour, Dr. Alexander, obituary notice of, 279
King's College Hospital, reports of cases treated at, 179
resident medical officers at, Dr. Beale on the advantage of, 490, 545
disputes between the, and St. John's House, 216, 478, 508
Hospital School, distribution of prizes at the, 536
Kingsley, Canon, on drunkenness, 272
Knee, excision of the, Mr. Heath on, 61
malignant disease of the, with secondary tumour of the brain, case of, 565
treatment of disease of the, by extension, Dr. Reyher on, 128
Kostroma people, account of the, 245
Krönlein, Dr. *Die offene Wundbehandlung*, review, 345
Kupffer, Prof. on the origin of the bile-ducts, 135

L

Laboulbène, M. on intestinal sand, 43
Ladies (young), flogging, *vide* Flogging
Language, the "ding-dong" theory of, 469
Larynx, Dr. Fieber on removal of growths from the, 599
complete removal of the, Prof. Billroth's case of, 192
artificial, Prof. Billroth's, 508
syphilitic affections of the, Dr. Brousardel on, 543
Lawson, Inspector-General, on investigation of epidemics, 462
Laycock, Prof. on morbid temperature, 311, 339
Lead-poisoning, paralysis of the radial nerve from, 548
Lecturer, qualifications for a, 632
Lee, Mr. N. death of, 144
Mr. Henry, on a case of excision of the ankle, 197
on a case of stricture of the trachea, 547
Legs, deformity of, from rickets, Mr. Marsh on operating for, 224
Legros, Monsieur Charles, obituary notice of, 59
Lente, Dr. on the hypodermic injection of quinine, 573
Leper Hospital at Madras, Dr. Van Someren's report on the, 342, 369, 420
Lepra Græcorum, Mr. Gaskoin on, 206
Leprosy, in India, Dr. Van Someren on, 371
contagiousness of, Dr. Van Someren on the, 385
treatment of, Dr. Van Someren on the, 421
Dr. Milroy on the, 564
cures for, 389
cases of, at Madras, 406
treatment of, by gurjun oil, Dr. Dougall on, 683
Dr. Duckworth on the, 703

Digitized by Google

Lereboullet, Professor, enlargement of bronchial glands in relation to phthisis, 656
Letheby, Dr. report of, on the City of London, 647
Leube, Professor, on the causes and treatment of dyspepsia, 504
Leucocythæmia, specimens of lymphadenoma in, 27
Lewis, Dr. Henry, on so-called homœopathic medicines, 25
on the sanitary state of Folkestone, 689
Mr. W. B. on typhus at the sea-coast, 529
Surgeon Dr. Thomas, death of, 116
Lightfoot, Dr. Robert, death of, 494
Lincoln, insanitary condition of, 129
lines on the, 145
Lithæmia, Dr. Murchison on, 326
Lithotomy, sterility after, Mr. Teevan on, 492
in boys, Mr. Teevan's cases of, 179
Lithotrity, Mr. Teevan's cases of, 425
Liver, functional diseases of the, Dr. Murchison on, 297, 325, 352
waxy and syphilitic, case of, 121
abscess of the, in India, 457
cirrhosis and cancer of the, with heart disease, case of, 556
carcinoma of the, Dr. H. Thompson on, 31
cylindrical epithelioma of the, specimen of, 708
Liverpool, letters from, 165, 460
Dr. Trench's report on the health of, 327
Royal Infirmary, reports of cases treated at the, 501
Livingstone, Dr. death of, 130
letter of, 255
career of, and post-mortem, 426
Lloyd, Dr. John Augustus, death of, 522
Lobb, Mr. Harry, question of expulsion of, from the Harveian Society, 350
Lomax, Dr. H. T. (of Stafford), obituary notice of, 24
London, vital statistics of, 30, 60, 89, 118, 146, 172, 202, 228, 256, 283, 310, 338, 365, 390, 418, 444, 470, 496, 524, 552, 580, 608, 636, 664, 690, 708
mortality of, in relation to density of population, Dr. Tripe on the, 304
constant water-supply of, progress of the, 700
Dr. Letheby's annual report on, 647
London Hospital, reports of cases treated at the, 96, 151, 234, 558
London University, proposed granting of degrees of the, to women, 505, 536
Longevity, family, example of, 59
of medical men in 1873, 131
Lucas, Mr. on mercury in syphilis, 133
Lunatics, illegal, the Kensington Board of Guardians on, 648
Lungs, accessory lobes of the, Dr. Collins on, 432
gangrene of the, in children, Dr. Hayes on, 177, 206
cavities of the, Professor Mosler on treatment of, by injection, 187
Lymphoma displacing the trachea, Mr. Browne on a case of, 139

M

Macann, Mr. Arthur Bernard, death of, 200
McCarthy, Surgeon, obituary notice of, 404
Mac Cormac, Mr. on bloodless surgery, 84, 165
Macdonald, Mr. John Chisholm (of Jamaica), obituary notice of, 200
McDowell, Dr. Ephraim, biographical sketch of, 357
Macfarlane, Mr. John, death of, 521
Macgregor, Dr. John James, death of, 58
McKenna, Deputy Inspector-General Dr. John, death of, 662
Mackenzie, Dr. Morell, on the treatment of cystic bronchocele, 548
Maclean, Professor, on the movement of troops in the tropics, 236
McLennan, Dr. John, death of, 414
Macleod, Dr. Charles, acquittal of, on a charge of manslaughter, 239
Madras, letters from, 17, 133, 406, 457, 486, 510
medical institutions of, 17
parasitic diseases at, 17
experiments with snake-poison at, 133
General Hospital, report on cases treated at the, 37, 486
Triplicane Dispensary, cases treated at the, 208, 265, 556
Leper Hospital at, Surgeon-Major Van Someren on the, 342, 369
leprosy and dysentery at, 406
disposal of the dead at, 510
Mahomed, Mr. on dicrotism of the pulse, 24, 137
on the sphygmograph in early Bright's disease, 451
on the etiology of Bright's disease, 492
Malaria as observed on the Gold Coast, 405
Manley, Dr. Edmund, death of, 494
Marriott, Mr. John, death of, 87
Marsh, Mr. on an operation for deformity from rickets, 224
Mary's (St.) Hospital, reports of cases treated at, 239, 315, 371, 448
Mary's (St.) Hospital, distribution of prizes at, by Dr. Rolleston, 591
Mason, Mr. on a ruptured perineum, 36
Massachusetts, mortality of children in, 100
Massage, Dr. Mezger's treatment of diseased joints by, 301
Masterman, Mr. case of aneurism by anastomosis, 500
Mastoid inflammation, Dr. Green on, 302
Maxwell, Dr. John Nesbitt, death of, 253
Measles, infectiousness of, Dr. Whitmore on the, 40
varying types of, Dr. Pearse on, 64
Mecca pilgrimage of 1874, Dr. Buez on the, 574
Mediastinum, dermoid cyst in the, 699
Medical assistants, relations of, to principals, 170
Medical charities, abuses of, the *Westminster Review* on, 294
Medical and Chirurgical Society (the Royal), reports of meetings of the, 113, 197, 224, 331, 359, 411, 492, 576, 631
annual meeting of the, 277
Medical education, Professor Huxley's views on, 268
in relation to the "conjoint scheme," 211
Medical men, examples of longevity of, 131
in Parliament, 127
duty of, at elections, 153
Medical Officers of Health, Society of, reports of the meetings of the, 55, 195, 804, 463, 518, 605
Medical societies, reports of meetings of the, *vide* Clinical, Epidemiological, Hunterian, Medical Officers of Health, Medico-Chirurgical, Obstetrical, Pathological, and West Kent
Medical societies in session 1873-74, 586
Medical testimony, instance of conflicting, 182
the *Law Magazine* on, 562
Medical witnesses at police-courts, 534
Medicine as a profession, 561
Melanotic tumours, Dr. Nepveu on the question of removal of, 355
Melanotic sarcoma, specimens of, 603
Meldon, Mr. Treatises on Gout and Diseases of the Skin, review, 19
Meningitis, basic cerebro-spinal, Dr. Dowse on, 124, 150
tubercular, in children, Dr. E. Smith on, 554
Meningocele, cyst of scalp simulating, specimen of, 140
Mezger, Dr. treatment of diseased joints by massage, 301
Micrometer, Dr. Woodman on a cheap, 629
Middlesex Hospital, reports of cases treated at the, 96, 448, 476, 614
Midwifery malpraxis, action for, 566
Midwives, instruction of, for the army, 483
Milk, ill-effects of human on puppies, 254
Milroy, Dr. propositions concerning quarantine, 158, 385
on the treatment of leprosy, 584
Milton, John, and modern science, Mr. Oliver on, 309
Milton, Mr., Modified Turkish and Vapour Baths, review, 629
Mineral Waters of Couzan and St. Galmier, report on, 585
Mitchell, Dr. Weir, on neurotomy, 193
Mitral stenosis, Dr. Sansom on a case of, 34
Mitral obstruction, specimen of parts in, 54
Modrzejewski, Dr. on amyloid degeneration, 132
Morphia, poisoning by (alleged), at West Haddon, 72
acquittal of Dr. Macleod on a charge of, 239
Morris, Mr. William (of Petworth), obituary notice of, 167
Mr. Henry, on a case of pyæmia with choreic movements, 261
Mortality in relation to density of population, Dr. Tripe on, 304
Mosler, Professor, on the introduction of fluid into the intestines by gravitation, 14
on the treatment of cavities of the lung by injection, 187
Murchison, Dr. on functional diseases of the liver, 297, 325, 352
presentation of a testimonial to, 455
Muron, M. Antoine, obituary notice of, 347, 415
Murray, Inspector-General Dr. John, on Dr. Cunningham's report on cholera, 166
Muscular atrophy, progressive, Dr. Eichorst on, 623
Muscular paralysis (pseudo-hypertrophic), historical account of, 617, 647

N

Naples, proposed British hospital at, 621
Naval Medical Service, successful candidates for the, 193
examination papers for the, 227
discontent in the, 449
proposed new warrant for the, 507
deputation concerning the, 552,
Necrosis, Mr. Forster's cases of, 581
from phosphorus, Mr. Savory on a specimen of, 359
Nephrotomy, Professor Brandt's case of, 105
Professor Simon's case of, 653
Nepveu, Dr. on removal of melanotic tumours, 355
Nerves, termination of, in joints, Dr. Nicoladoni on the, 157
Nervous System, Diseases of the, Hospital for, report of cases treated at the, 393
Neuralgia, Mr. Callender on cases of, 491
syphilitic, bromide of calcium in, 132
Neuroma, painful, Dr. Duhring on a case of, 185
Neurosal headache, Dr. Handfield Jones on, 120, 149, 175, 205
Neuroses, thermal, Professor Laycock on, 339
Neurotomy, Dr. Weir Mitchell on, 193
Newcastle-on-Tyne, reports on the sanitary state of, 12, 697
New growths, Dr. Payne on the origin and relation of, 298, 327, 408
Nicoladoni, Dr. on the termination of nerves in joints, 157
Nightingale Fund, report on the, 697
Nightingale, the Two-headed, in Paris, 106
Nind, Mr. Philip Pitt, death of, 468
Nisbet, Sir Alexander, death of, 706
Nose, polypus of the, new mode of removing, 590
Nothnagel, Professor, on the functions of the brain, 237
Nugent, Dr. Henry, death of, 522
Nunn, Mr. on excision of the hip-joint, 614
Nurses for the poor, Dr. Ogle on, 395

O

Oatmeal as food for infants, 443
Obituary Notices:—
Allen, Dr. Peter, 168
Beaman, Dr. George, 142
Beatson, Surgeon-General, 661
Bird, Dr. Frederick, 519
Bird, Mr. James, 661
Charlton, Dr. Edward, 633
Cowie, Dr. Robert, 577
Cruveilhier, Professor, 296, 328
Dickson, Dr. John Thompson, 86
Dillon, Dr. W. E. 440
Dodson, Dr. Andrew, 307
Fereday, Mr. Samuel Day, 520
Fox, Dr. Charles James, 577
Heeney, Dr. Francis Xavier, 57
Joulin, Dr. (of Paris), 324
Kelly, Surgeon-Major, 520
Kilgour, Dr. Alexander, 279
Legros, M. Charles (of Paris), 59
Lomax, Mr. H. T. 24
McCarthy, Surgeon, 404
Macdonald, Mr. John Chisholm (of Jamaica), 200
McDowell, Dr. Ephraim, 357
Morris, Mr. William, 167
Muron, M. Antoine (of Paris), 347, 415
Papillon, M. Fernand (of Paris), 62
Peet, Surgeon-Major Dr. John, 168
Pettigrew, Dr. William Vesalius, 253
Phillips, Dr. John Jonas, 141
Schultze, Dr. Max, 254
Tamplin, Mr. Richard W. 549
Thomas, Mr. William, 86
Webb, Dr. Francis Cornelius, 22, 83
Winslow, Dr. Forbes, 281, 306
Wormald, Mr. Thomas, 56
Wyatt, Surgeon-Major John, 414
Obstetric operations at Madras, cases of, 553
Obstetrical Society, reports of meetings of the, 138, 223, 465, 604
question of admitting women as members of the, 271
Obstetrical Journal, review, 410
Ogle, Dr. on nurses for the poor, 395
case of pyæmia, 630
Olecranon, fracture of, case of, 532
Oliver, Mr. on Milton and modern science, 309
Onychia maligna, Professor Vanzetti on, 248
Operations, bloodless, *vide* Bloodless surgery
Oppolzer, Professor, on angina Ludwigii, 10
Orbit, sarcoma of the, treated by the cautery, Mr. Carter's case of, 84
Ord, Dr. on uric acid in relation to gout, 223
Oré, Professor, case of venous injection of chloral, 574
Osteo-malaria, artificial production of, Dr. Heitzmann on the, 98
Out-patient system, resolutions at the Westminster Hospital on the, 76
the "memorial," on the, of St. George's Hospital, 481
Ovaries, cateleotrotonus of, in amenorrhœa, Dr. Althaus on, 287
Ovariotomy, Mr. Wagstaffe's case of, 7, 203
under difficulties, Dr. Stevens on a case of, 264
during peritonitis, Mr. Tibbits' case of, 344
historical sketch of, 357
statistics of, in Holland, 642
Mr. Wagstaffe's cases of, 645, 672
Ovary, secondary cancer of the, specimen of, 252
fibroma of the, specimen of, 696
tumour of the, in a child, specimen of, 602
Overcrowding, memorial of the College of Physicians on, 279, 399

Digitized by Google

Owen, Professor, distribution of prizes by, at King's College, 536
Owens College, Manchester, dismissal of Mr. Bradley from, 677
Ozone, Dr. Andrews on, 354
action of, in relation to water, 162

P

Packard, Dr. bracketed splint of, 414
Palmar arch, aneurism of the, case of, 630
Papillæ, M. Fernard, obituary notice of, 62
Paracentesis thoracis, discussion on, at Lyons, 247
Dr. Allbutt on, 497, 527
Dr. Bucquoy on, in recent pleurisy, 438
with the aspirator, Dr. Foster's case of, 525, 553
in children, cases of, 644, 671, 695
Paralysis, pseudo-hypertrophic muscular, historical account of, 617, 647
general, from syphilis, case of, 413
Paris, letter from, 658
registration returns of, in 1872, 77
mortality of, in 1872, Dr. Vacher on the, 656
changes in the Assistance Publique of, 232
proceedings of the, in 1874, 472
mortality returns of, in 1873-74, 247, 599
defective diet of infants in the hospitals of, 219, 274
number of practitioners in, in 1874, 363
suicides in, in 1872, 657
lunatics of, in 1873, 460
vide France
Parker, Mr. Stephen John Peach, death of, 253
Parkin, Dr. on inductive investigation of epidemics, 546
Parks, Dr. of Kilkenny, violent death of, 350
Parliament, medical men in, 127
medical electors, duty of, in respect to, 153
in Ireland, 156
the new, 180
Parliamentary intelligence, 379, 433, 455, 484, 510, 569, 592, 623, 653, 684, 699
Parotiditis as a sequence of acute diseases, Professor Crocq on, 513
Pathological Society, reports of meetings of the, 26, 54, 139, 196, 251, 269, 278, 318, 338, 359, 400, 439, 450, 479, 515, 602, 686, 703
Payne, Dr. on the origin and relation of new growths, 298, 327, 408
Pearse, Dr. illustrations of epidemics, 65, 94
Pect, Surgeon-Major Dr. John, obituary notice of, 168
Pelvic hæmatocele, Mr. Egan on cases of, 66
Peppercorne, Mr. on arsenic in boils, 389
Perineum, rupture of the, Mr. Mason on the operation for, 86
Perforators, protected, Dr. Wiltshire on, 465
Peritonitis, ovariotomy during, Mr. Tibbits' case of, 344
Pertussis, pathognomonic sign of, 331
hydrate of chloral in, 579
Pessaries, danger of long retention of, 223
Peter's (St.) Hospital, reports of cases treated at, 179, 424
Pettenkofer, Professor, on the cholera at Munich, 582, 598
Pettigrew, Dr. William Vesalius, obituary notice of, 253
Pharmacopœia, the British, the "Additions" to the, 346
of the Hospital for Diseases of the Throat, notice of, 83
Pharmacy Bill of the King and Queen's College, Ireland, 431, 483
Pharynx, erysipelas of, M. Brouardel on, 135
Phillips, Dr. John Jonas, obituary notice of, 141
Phillott, Mr. John Stevens, death of, 662
Phlegmasia dolens, Dr. Carson's case of, 501
Phosphorus, dose of, Dr. J. A. Thompson on the, 231, 313
necrosis from, Mr. Savory on, 359
Phthisis, clinical varieties of, Dr. Pollock on the, 609, 665
syphilitic, Dr. Goodhart on specimens of, 140
communicability of, from husband to wife, Dr. Weber on the, 631
enlargement of the bronchial glands in relation to, 656
Phylloxera, destruction of vines by the, 689
Physicians, Royal College of, of London, pass-lists of the, 169, 253, 521
Comitia of the, 376
memorial of, on overcrowding, 379, 399
King and Queen's College in Ireland, pass-lists of the, 115, 225, 361, 467, 577, 688
rules of the, for female candidates, 416
Pharmacy Bill of the, 431, 438
deputation of the, to the Lord Lieutenant, 507
Physicians and Surgeons, Royal College of, in Edinburgh, pass-lists of the, 549
Pick, Dr. on the action of nitrite of amyl, 117
Pirrie, Professor, Principles and Practice of Surgery, review, 110
Plantaris muscle, Mr. Forster on the, 171
Playfair, Dr. on puerperal thrombosis, 223, 465
Pleurisy, paracentesis in recent, Dr. Bucquoy on, 438
Dr. Foster on a case of, 525, 553
in children, cases of, 645, 671, 695
Plymouth Dockyard disease, references concerning, 117
Pneumonia from sewer gases at East Sheen, 373, 674
with delirium tremens, Dr. H. Thompson on a case of, 476
Poisoning, accidental, trial for, in France, 134
by arsenic, conviction for, 294
by arsenical wall-paper, 52
by arsenical quack pills, 75
by carbolic acid, cases of, 679
by colchicum, Dr. Major's cases of, 275
by croton oil seeds, 272
by lead, paralysis of the radial nerve from, 548
by morphia, the alleged, at West Haddon, 72
acquittal of Dr. Macleod on a charge of, 239
snake, *vide* Snake
Police, remuneration of medical men by, Dr. Buckell on, 707
Pollak, Dr. on the employment of chloral, 409
Pollock, Dr. on the clinical varieties of consumption, 609, 665
Pons Varolii, hæmorrhage into the, cases of, 448
Poor-law medical officers, Dr. Rogers' note on the, 138
question of superannuation of, 482
vide Association
Poore, Dr. introductory lecture on public health, 592, 625
Population, mortality according to density of, Dr. Tripe on, 304
Porter, Mr. John Taylor, death of, 200
Postgate, Mr. on wine as a beverage and a medicine, 112
Potteries, health of the, in 1873, 158
Dr. Weaver on the, 289
Powell, Dr. Douglas, cases of aneurism of the aorta after rheumatism, 85
Pregnancy, tubal, Mr. Turner's case of, 223
Prisons, prevalence of phthisis in American, 579
Prize, award of the Stiebel, 698
Prizes, distribution of, at the Académie de Médecine, 356
distribution of, at Charing-cross Hospital School, 655, 662
distribution of, at King's College Hospital School, 536
distribution of, at St. Mary's Hospital School, 448
distribution of, at St. Thomas's School, 675
at the French academies, observations on the, 15
Prize-questions of the Société de Chirurgie, 598
of the Société Médicale des Hôpitaux, 307
Prurigo, lotion for, 264
Pruritus hiemalis, Dr. Dühring on, 409
Psychological Medicine, Drs. Bucknill and Tuke's, review, 702
Puech, M. on multiple births, 290
Puerperal Diseases, Dr. Barker's Lectures on, review, 628
Puerperal thrombosis, Dr. Playfair on, 223, 465
Pulmonary artery, obliteration of the, specimen of, 603
Pulse, dicrotism of the, Dr. Galabin and Mr. Mahomed on, 24, 137, 223
Punjaub, registration returns from the, 187, 699
Pus, blue, Professors Demarquay and Lücke on, 39
Pyæmia, in private practice, Mr. Hewett on, 119
discussion on, at the Clinical Society, 127, 140, 212, 250, 269, 316, 332
with choreic movements, Mr. Morris on a case of, 261
Dr. Handfield Jones on a case of, 288
terminating in thrombosis, Dr. Ogle's case of, 630
Pyocyanine, Professor Lücke on, 39
Pyrexia, Dr. Richardson on a mode of applying cold in, 312

Q

Quacks and quackery, 235
Quain, Mr. on a case of radial aneurism, 98
Quarantine in relation to cholera, Dr. Milroy on, 158, 385
Queensland, registration returns of, 439
Queen's University, Ireland, pass-list of, 705

R

Radcliffe and Kneller, epigram on, 663
Radial nerve, paralysis of the, from lead-poisoning, 548
Rajpootana Dispensary, report for 1873-74, 663, 707
guinea-worm in, 689
Ramskill, Dr. on a case of tumour of the brain, 558
Rawlings, Mr. on the colliery district of Durham, 55
Rayner, Dr. Edward, death of, 388
Recruiting for the army, unsatisfactory state of the, 101
Surgeon-Major Adams on, 184
observations on the question of, 429
returns on, 429
Recruiting for the army, rules for, 650
Rectum, stricture of the, case of, 8
villous tumours of the, Mr. Gowland on specimens of, 198
Registrar-General of England, quarterly report of, 183, 523
vide Scotland
Registration Acts Amendment Bill, provisions of the, 569, 619
Reviews and notices of books, 19, 83, 110, 164, 194, 220, 248, 275, 303, 331, 367, 410, 490, 514, 542, 575, 599, 628, 657, 680, 686, 702
Reyher, Dr. Carl, on the extension treatment of diseased joints, 129
Rheumatism, pathology of, Mr. Meldon on, 20
cases of aneurism of the aorta after, Dr. Powell on, 85
Richards, Mr. on strychnine in snake-poisoning, 596
Richardson, Dr. B. W. obituary notice of Dr. Webb, 22
application of cold in pyrexia, 312
Ricketts, deformity from, Mr. Marsh on operating for, 224
artificial production of, Dr. Heitzmann on the, 98
Rivington, Mr. on dislocation of the sternum, 114
Roberts, Dr., Theory and Practice of Medicine, review, 20
Roche, Surgeon William Silvester, inquest on, 284
Rogers, Dr. note on poor-law medical officers, 138
Rolleston, Professor, distribution of prizes by, at St. Mary's, 591
Rome, ancient, supply of water for, 623
Ross, Dr., Ventilation of Schools, etc., review, 303
Russell, Dr. James, on hemiplegia and softening after ligature of the carotid, 285, 363, 391, 447, 473
case of cancerous tumour of the brain, 530
Rutherford, Dr. early clinical lectures of, 591
Ryan, Dr. William Burke, obituary notice of, 704
Ryder, Admiral, on the *Victor Emmanuel* hospital-ship, 620

S

Samaritan Free Hospital, opening of a branch of the, 676
Sanderson, Dr. on Venus's fly-trap, 681
Sanitary districts, large size of the, 348
laws, defects of the, in counties, Dr. Syson on, 323
reform and its opponents, 647
matters in the South of England, 654
Sansom, Dr. on a case of mitral stenosis, 34
Sarcoma of the thigh, specimen of recurrent, 54
of the orbit, treated by the cautery, Mr. Carter on, 84
of the bladder and vagina, specimen of, 158
Sarcotome, Dr. Hollis's, 568
Savory, Mr. on a specimen of necrosis from phosphorus, 359
Scarlet fever, malignant, Dr. Williams on, 701
Schiff, Professor, on vivisection, 40
Schlesinger, Dr. on uterine thermometry, 410
Schöne, Professor, on the action of ozone, 162
Schools, dietaries of, for the upper classes, 97
Dr. Gray on, 195
Schultze, Dr. Max, obituary notice of, 254
Sciatica and its treatment, Dr. Anstie on, 581, 637
Sclerema of infants, Dr. Bierbaum on the, 44
Sclerotomy, Dr. De Wecker on, 659
Scotland, registration returns of, 158, 215, 306, 325, 452, 579, 706
benefit of vaccination in, 620
Universities of, and the London Apothecaries' Society, 614
Seamen's Hospital, Greenwich, reports of cases treated at the, 67
Sedgwick, Mr. Charles, a query for surgeons, 420
Sée, Professor, on the mode of action of iodine, 174, 419
Selborne, Lord, address on the Samaritan Free Hospital, 576
Septic disease, Mr. Barwell on, 631
Sewell, Mr. John Jessop, death of, 663
Sewer-gas emanations, outbreak of pneumonia from, at East Sheen, 373, 674
Sewers, ventilation and trapping of, Dr. A. Carpenter on, 461
Shaw, Dr. on imbecility with ataxia, 42
Sheffield, sanitary condition of, in 1873, 363
Sheriff, Mr. on cases of stricture treated by Wakley's instruments, 206, 265
cases of obstetric operations, 558
Sherry as a beverage and medicine, 47
Messrs. Postgate and Turner on, 112
Siamese twins, death and examination of the, 100, 186, 293
Sibson, Dr. on the influences of Bright's disease, 437, 512, 538
Sierra Leone, European death-rate at, 12
Sigmund, Professor, on the treatment of syphilis, 627
Silicated bandage, Mr. Wagstaffe on the, 263
Silver, Dr. Practical Medicine, review, 514
Simpson, Mr. W. on preliminary examination at the College of Surgeons, 145
Dr. James Horatio, death of, 662

Digitized by Google

Skin, Diseases of the, Dr. Cauty on, review, 221
Professors Hebra and Kaposi on, review, 686
peculiar disease of the, in children, 76
disease of the, in relation to asthma, Mr. Gaskoin on, 359
Skull, fracture of, Mr. Forster's cases of, 531
compound fracture of the, Mr. Heath on a case of, 203
Slaughter-houses in London, Dr. Dudfield on, 463
Sleep, induction of anæsthesia during, M. Dolbeau on the, 220
Small-pox, in the department of the Rhône in 1873, 460
Dr. Gayton's report on the Homerton Hospital for, 590, 707
pommade in the itching of, 501
Smith, Professor Goldwin, on the rights of women, 646
Dr. Edward, Foods, review, 71
Dr. Eustace, Commentaries on Disease in Children, 445, 471, 498, 554
Mr. John Ablewhite, death of, 169
Dr. Protheroe, on the Hospital for Women dispute, 438
Snake-poisoning, treatment of, Professor Halford on the, 53
Dr. Shortt's experiments on, 183
Mr. Richards' experiments with strychnine in, 595
artificial respiration in, 597
injection of ammonia in, 596
Dr. Fayrer on the, 601
Societies, medical, *vide* Medical
Society for Relief of Widows and Orphans, report of the, 503, 506
South Hants Infirmary, report of cases treated at the, 506
South Sea Islands, native medicine in the, Mr. Ella on, 50
Speculum, the tapering metallic tubal, 604
Spence, Professor, on bloodless surgery, 111
Sphygmograph in early stages of Bright's disease, Mr. Mahomed on the use of the, 431
Spicer, Mr. Richard William, death of, 494
Spinal cord, injuries of the, Mr. Hulke's clinical lecture on, 173, 229
acute disease of the, Dr. Woodman on a case of, 584
Spinal hemiplegia, Dr. Greenhow's case of, 97
Spinal curvature, of muscular origin, Professor Ulrich on, 657
Spine, fracture of the, Mr. Hulke on, 173, 229
Splenic cachexia of tropical climates, Dr. Fayrer on, 2.
Splint, Dr. Packard's bracketed, 414
Sponge-tents, Mr. Tait on, 35
disinfection of, Mr. Tait on the, 170
Staphyloma corneæ, Dr. Taylor's case of, 397
Sternum, dislocation of the, Mr. Rivington on, 116
Stevens, Dr. S. G. case of ovariotomy under difficulties, 264
Stewart, Dr. Grainger, on a case of syphilitic liver with ascites, 121
Stickings, Mr. George, death of, 87
Stiebel Prize, award of the 698
internal, urethrotomy in, Mr. Teevan on, 694
Stokes, Mr. on cancer, 495
on the Blair murder, 663
Stomach, gunshot wound of the, Mr. Heath on a case of, 1
Stomach-pump (syphon), Dr. Toswill on a, 199
Strange, Dr. etiology of enteric fever, 611, 667
Stricture, cases of, treated by Wakley's instrument, Mr. Sheriff on, 208, 265
cases of, treated by Mr. Forster, 424
internal urethrotomy in, Mr. Teevan on, 694
Strongylus as a cause of grouse disease, 140, 199
Stuart, Dr. Abel, death of, 28
Suicide, statistics of, in the army, 589
in Paris, 657
Superfœtation, Mr. Dean on a case of, 551
Supra-renal capsules, carcinoma of the, Dr. H. Thompson on a case of, 31
Surgeons, Royal College of, pass-lists of the, 86, 115, 143, 200, 415, 441, 467, 494, 521, 549, 577, 633, 661
pass-list of dental licentiates of the, 169, 706
examination questions of the, 87, 116, 416, 469, 495, 578
dental, 144, 706
preliminary examinations at the, Mr. Simpson on the, 145
admission of fellows of the, 335
observations on the rejections at the, 651
Surgeons, Royal College of (Edinburgh), pass-lists of the, 549
Surgeons, Royal College of, in Ireland, deputation of the, to the Lord Lieutenant, 566
pass-list of the, 633
Surgery, bloodless, *vide* Bloodless
employment of warm water in, Professor Hamilton on the, 701
Sweating, hereditary local, case of, 627
Swete, Dr. Benjamin Lennox, death of, 522
Swift, Dr. John L. death of, 468
Syphilis, classification of, Mr. Bradley on the, 612
Syphilis communicated by a midwife, 459
disease of the liver in, case of, 121
disease of the lungs in, Dr. Goodhart on a specimen of, 140
infantile epilepsy from, case of, 398
neuralgia from, bromide of calcium in, 141
general paralysis from, case of, 413
of the nervous system, Dr. Buzzard on, review, 542
M. Brouardel on, 544
of the larynx and trachea, Mr. Brouardel on, 544
treatment of, Professor Sigmund on the, 637
M. Brouardel on the, 543
treatment of constitutional, Professor Zeisal on, 134
question of mercurial treatment of, 74
Dr. Desprès on the, 544
Mr. Hutchinson on the, 79, 99
Mr. Lucas on the, 136
Dr. Wilks on the, 165
iodide of potassium in, observations on, 154
Syson, Dr. on defects in the sanitary laws, 323

T

Tait, Mr. Lawson, on sponge-tents, 35
on disinfection of sponge-tents, 170
on the galvanic stem, 443
Tamplin, Mr. Richard W. obituary notice of, 549
Taylor, Sir Alexander, and the ambulance at Pau, 166
Dr. C. B. case of staphyloma corneæ, 396
Teevan, Mr. on lithotomy in boys, 180
cases of lithotrity, 424
on sterility after lithotomy, 492
on internal urethrotomy, 694
Temperature, morbid, Professor Laycock on, 311, 339
post-mortem rise of, 311
vide Thermometry
Tents (sponge), Mr. Lawson Tait on, 35
disinfection of, by cloves, 170
Testimony, medical, instance of conflicting, 182
the *Law Magazine* on, 562
Testis, hernia of the, treated by compression, case of, 265
Tetanus, injection of chloral in a case of, 254
Thermometer, Casella's self-registering clinical, 252
Thermometry, medical, Professor Laycock on, 311, 339
Dr. Buckingham on discrepancy in, 301
uterine, Dr. Schlesinger on, 410
Thomas, Mr. William W. (of Llanfair), obituary notice of, 86
Dr. Gaillard, on uterine pathology, 489
Thomas's (St.) Hospital, reports of cases treated at, 7, 36, 207, 475, 645, 672
distribution of prizes at the school of, 675
Thompson, Dr. J. A. on the dose of phosphorus, 231, 313
Dr. Henry, on a case of pneumonia, 477
case of cirrhosis and cancer of the liver, with heart disease, 556
on carcinoma of the liver, etc., 31
on perforation of the trachea by a caseous gland, 92
Dr. Symes, and the Great Northern Railway, 136
Thorowgood, Dr. nature and treatment of asthma, 63
Throat, malignant sore, Professor Oppolzer on, 10
Thrombosis, puerperal, Dr. Playfair on, 223, 465
Thyroid gland, absence of the, in a cretin, 608
Tichborne case, review of the, 267
Tidy, Dr. on the adulteration of butter, 195
Toner, Dr. on yellow fever in elevated districts, 536
"A Subscriber" in reply to, 579
Tongue, ichthyosis of, Mr. Fairlie Clarke on, 331
Torrance, Mr. D. death of, 388
Torture by water, 689
Toswill, Dr. on a syphon stomach-pump, 199
Trachea, perforation of the, by a caseous gland, Dr. Thompson on the, 92
displacement of the, by lymphoma, 139
traumatic stricture of the, Mr. Lee on a case of, 547
syphilitic narrowing of the, specimen of, 704
Tracheotomy in laryngeal affections, Dr. H. Thompson on, 91
dyspnœa from plugging the tube after, 397
prolonged retention of the tube after, 417
Transfusion in anæmia, Professor Behier on a case of, 330
discussion on, at the New York Academy, 514
case of, in fibrous tumour of the uterus, 613
Trichina, specimen of the muscles in, 55
Tripe, Dr. on mortality in relation to density of population, 304
Troops, movement and camping of, in the tropics, 286
Tropics, camping of troops in the, 286
Tubal pregnancy, Mr. Turner on a case of, 228
Tuberculosis, acute general, in children, Dr. Eustace Smith on, 445, 471, 498, 554
acute, Dr. Foster on a case of, 525
of the choroid, specimen of, 261
Tumours, origin and relations of, Dr. Payne on the, 296, 327, 408
Turner, Mr. J. W. on wine as a beverage and a medicine, 112
Mr. Sydney, case of tubal pregnancy, 228
Typhoid fever, outbreak of, at Cambridge, 103
epidemic of, at Lyons, 627
alleged spontaneous development of, Dr. Corfield on the, 546
the slighter forms of, Professor Jürgensen on the, 188
Dr. Handfield Jones on cases of, 315
etiology and prevention of, Dr. Corfield on the, 606
etiology of, in relation to medical officers of health, Dr. Strange on the, 611, 667
nature and origin of, in relation to prevention and treatment, 674
Dr. Stokes' views concerning, 675
Typhus, outbreak of, at Burry Port, Mr. Lewis on the, 529

U

Uffelmann, Dr. on a peculiar disease of the skin in children, 76
Ulrich, Professor, *Pathologie und Therapie der Muskulären Rückgratsverkrummungen*, review, 657
United States, medical schools and graduates in, in 1873, 613
University College Hospital, report of cases treated at, 397
Urethrotomy, internal, Mr. Teevan on, 694
Uric acid in relation to gout, Dr. Ord on, 233
Urinary calculi in the female, Mr. Heath on, 391
Urine, ammoniacal, treated by benzoic acid, 163
Uterus, pathology of the, Dr. Thomas on the, 489
thermometry of the, Dr. Schlesinger on, 410
fibroid of the, injection of ergotin in, 191

V

Vaccination, beneficial action of, in Scotland, 620
animal, at Milan, report on, 443
the Brussels Institution for, 599
Act, decision on a point under the, 506
Vaccinator, Mallain's instantaneous, 279
Vacher, Dr. on the mortality of Paris in 1872, 656
Van Someren, Surgeon-Major, on the Madras Leper Hospital, 342, 369, 421
on the contagiousness of leprosy, 385
Vanzetti, Professor, *Intorno all' Onichia Maligna*, review, 248
Vectis, observations on the employment of the, 605
Vernon, Mr. case of ulcer of the cornea, 557
Vertebral column, fractures of the, Mr. Hulke on, 173, 229
Viale, Dr. (of Rome), death of, 403
Vines, destruction of, by the phylloxera, 698
Virchow, Professor, on a statue for Eustachius, 541
Vivisection, revived discussions on, 10, 71
Professor Schiff on, 40
reply to the *Spectator's* criticism on, 534
resolution of the Society for Prevention of Cruelty to Animals upon, 696
corrigendum concerning, 576
Voice, organs of the, in living centenarians, Sir D. Gibb on the, 669
recovery of, Dr. Mackenzie on a case of, 251
Volunteer Medical Service, note on the regulations of the, 227

W

Wagstaffe, Mr. on a case of popliteal aneurism, 207
on a new form of fixed bandage, 263
on intestinal obstruction, 454, 475
cases of ovariotomy, 7, 208, 645, 672
Wall-papers, arsenicated, poisoning by, case of, 52
Warburg tincture, action at law concerning the, 698
Warlomont, Dr. on animal vaccination at Brussels, 599
Warner, Dr. John, death of, 87
Water, apprehended scarcity of, in 1874, 587
the supply of, for ancient Rome, 623
Waterfield, Mr. on a sewer-gas nuisance, 373, 674
Waters, the metropolitan, composition and quality of the, 29, 201, 416, 523, 635
condition of, during 1873, 110
Water, warm, employment in surgery, Professor Hamilton on, 701
progress of the constant supply of, 700
Watson, Mr. on neuro-paralytic keratitis, 176
on the operation for senile cataract, 499
Weaver, Dr. report on the health of the Potteries, 289
Webb, Mrs. letter of thanks from, 661
Dr. Francis Cornelius, obituary notice of, 22, 88
acrostic on, *in memoriam*, 29
note of Dr. Druitt on, 111
fund raised for the family of, 78, 106, 136, 163, 194, 243, 296, 351, 433, 656
Weber, Dr. on communicability of phthisis by husbands, 631
Webster, Mr. George, death of, 607
Wecker, Dr. De, ophthalmological clinic in 1873, 658
Wells, Mr. Spencer, statistics of ovariotomy in Holland, 642

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Westminster Review, the, on abuse of medical charities, 294
West Kent Medico-Chirurgical Society, notice of meeting of the, 454
Whalley, Mr., Popular Description of the Human Eye, review, 600
Wheelhouse, Mr. on a case of external iliac aneurism cured by pressure, 25
"Whisky war," the women's, in the United States, 259
Whiting, Dr. John, death of, 88
Whitmore, Dr. circular of, concerning measles, 40
Wilks, Dr. on mercury in syphilis, 165
Williams, Dr. E. T. on malignant scarlet fever, 701
Wilson, Professor Erasmus, syllabus of lectures of, 171
Mr. Andrew, Student's Guide to Zoology, review, 275
Mr. Richard, death of, 87
Wine as a beverage and medicinal agent, 47
Mr. Postgate on, 112
Mr. Turner on, 112
Wines, the Hungarian and Transylvanian, at the International Exhibition, 623, 655
the Rhône, account of, 661
Australian, 679
Winn, Dr. on poisoning by syrup of chloral, 602
Winslow, Dr. Lyttleton, Manual of Lunacy, review, 249
Dr. Forbes, obituary notice of, 281, 306
Witnesses, medical, at police-courts, 534
Wollaston, Dr. Alexander Luard, death of, 668
Women, proposed admission of, to the Scotch universities, Parliamentary discussion on the, 673
Women, education disabilities of, 503
rules for, at the King and Queen's College of Physicians, Ireland, 416
proposed admission of, to the degrees of the London University, 505, 536
question of admission of, to the Obstetrical Society, 209
"rights" of Professor Goldwin Smith on the question of the, 646
vide Edinburgh
Hospital for, and the honorary medical officers, 374
Dr. Protheroe Smith on the, 438
Wood, Mr. John, on cases of ectopia vesicæ, 197
Woodman, Dr. Bathurst, on the chemical relations of fats, 306
case of acute spinal disease, 564
on a cheap micrometer, 629
Dr. Frederick, death of, 336
Wormald, Mr. Thomas, obituary notice of, 56
Wortabet, Dr. on the Aleppo boil, 98
Wound, gunshot, of the frontal sinuses, case of, 448
of the abdomen, Mr. Heath's clinical observations on a, 1
Wounds, cotton-wool treatment of, M. Alphonse Guérin on the, 659
open treatment of, Dr. Krönlein on the, 345
Mr. Davy on the, 395
warm water for, Professor Hamilton on, 701
gunshot, in the Ashantee war, cases of, 570
Wyatt, Surgeon-Major John, obituary notice of, 414
Wynter, Dr., Peeps into the Human Hive, review, 543

X

Xanthelasma multiplex, Dr. Legg on a specimen of, 140

Y

Yellow fever, period of incubation of, Dr. Jones on the, 5
communication of, in utero, 5
modification of, by preceding diseases, 33
deaths from, at Shreveport, 13
in elevated districts, Dr. Toner on, 536
"A Subscriber" on, 579

Z

Zeisel, Professor, on the treatment of constitutional syphilis, 134
Zoology, Wilson's Student's Guide to, review, 275

LIST OF ILLUSTRATIONS.

1. Foot affected with Guinea-worm, 17
2. Diagram of Sutures of the Perineum, 37
3. Mr. Quain's case of Compression in Aneurism of the Radial Artery, 98
4. Dr. Toswill's Syphon Stomach-Pump, 199
5. Mallain's Instantaneous Vaccinator, 279
6. Dr. Richardson's Apparatus for the Application of Cold, 313
7. Staphyloma Cornee, 397
8. Mr. Lennox Browne's Inhaler, 519
9. Dr. Woodman's Cheap Micrometer, 629

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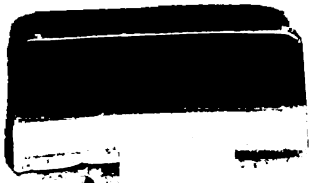

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